# Table of Contents

<table>
<thead>
<tr>
<th>RULE</th>
<th>REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001 Scope of the PTA Safeworking Rules and Procedures</td>
<td>1.04</td>
</tr>
<tr>
<td>1002 Principles of Network Operations</td>
<td>1.03</td>
</tr>
<tr>
<td>1003 General Responsibilities for Safety</td>
<td>1.02</td>
</tr>
<tr>
<td>1004 Track Access Accreditation</td>
<td>1.04</td>
</tr>
<tr>
<td>2001 Walking in the Danger Zone</td>
<td>1.01</td>
</tr>
<tr>
<td>2003 Handsignals and Verbal Commands</td>
<td>1.00</td>
</tr>
<tr>
<td>2007 Network Communication</td>
<td>1.01</td>
</tr>
<tr>
<td>2009 Reporting and Responding to a Condition Affecting the Network (CAN)</td>
<td>1.01</td>
</tr>
<tr>
<td>2015 Active Control Level Crossing Management</td>
<td>1.01</td>
</tr>
<tr>
<td>2017 Working around Electrical Infrastructure</td>
<td>2.01</td>
</tr>
<tr>
<td>2019 Planned De-Energisation of Overhead Supply</td>
<td>1.01</td>
</tr>
<tr>
<td>2023 Unplanned De-Energisation of Overhead Supply</td>
<td>1.01</td>
</tr>
<tr>
<td>2027 Responsibilities of Rail Traffic Crew</td>
<td>1.00</td>
</tr>
<tr>
<td>2029 Responsibilities of Train Controllers</td>
<td>1.00</td>
</tr>
<tr>
<td>2031 Responsibilities of Track Workers</td>
<td>1.01</td>
</tr>
<tr>
<td>3000 Planning Work in the Rail Corridor</td>
<td>1.04</td>
</tr>
<tr>
<td>3001 Local Possession Authority</td>
<td>1.03</td>
</tr>
<tr>
<td>3005 Track Occupancy Authority</td>
<td>1.03</td>
</tr>
<tr>
<td>3011 Absolute Signal Blocking</td>
<td>1.06</td>
</tr>
<tr>
<td>3013 Lookout Working</td>
<td>1.02</td>
</tr>
<tr>
<td>3019 Track Vehicles</td>
<td>1.05</td>
</tr>
<tr>
<td>3025 Temporary Speed Restrictions</td>
<td>1.01</td>
</tr>
<tr>
<td>4001 Protecting Rail Traffic</td>
<td>1.01</td>
</tr>
<tr>
<td>4003 Rail Traffic Integrity</td>
<td>1.00</td>
</tr>
</tbody>
</table>
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>RULE</th>
<th>REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>4005 Rail Traffic Lights and Markers</td>
<td>1.00</td>
</tr>
<tr>
<td>4007 Rail Traffic Whistles</td>
<td>1.00</td>
</tr>
<tr>
<td>4009 Removing Disabled Rail Traffic</td>
<td>1.02</td>
</tr>
<tr>
<td>4011 Station Limits</td>
<td>1.01</td>
</tr>
<tr>
<td>4015 Setting back or Propelling on Running Lines</td>
<td>1.01</td>
</tr>
<tr>
<td>4017 Overdue Occupancies</td>
<td>1.01</td>
</tr>
<tr>
<td>5001 Centralised Traffic Control System</td>
<td>1.00</td>
</tr>
<tr>
<td>5003 Half Pilot Keys and Pilot Key Working</td>
<td>1.00</td>
</tr>
<tr>
<td>5019 Alternative Proceed Authority</td>
<td>1.01</td>
</tr>
<tr>
<td>5023 Manual Block Working</td>
<td>1.01</td>
</tr>
<tr>
<td>6001 Overrun of Limit of Authority</td>
<td>1.00</td>
</tr>
<tr>
<td>6003 Blocking Facilities</td>
<td>1.00</td>
</tr>
<tr>
<td>6005 Fixed Signals</td>
<td>1.01</td>
</tr>
<tr>
<td>6007 Signs</td>
<td>1.02</td>
</tr>
<tr>
<td>6009 Indicators</td>
<td>1.00</td>
</tr>
<tr>
<td>6013 Passing Fixed Signals at Stop</td>
<td>1.00</td>
</tr>
<tr>
<td>9000 Clipping Points</td>
<td>1.00</td>
</tr>
<tr>
<td>9006 Piloting Rail Traffic</td>
<td>1.00</td>
</tr>
<tr>
<td>9010 Protecting Work from Rail Traffic on Adjacent Lines</td>
<td>1.01</td>
</tr>
<tr>
<td>9012 Operation of Points</td>
<td>1.00</td>
</tr>
<tr>
<td>9016 Written Authorities and Forms</td>
<td>1.01</td>
</tr>
<tr>
<td>9018 Additional Work Groups Accessing Worksite</td>
<td>1.00</td>
</tr>
<tr>
<td>9020 Using Standing Rail Traffic for Protection</td>
<td>1.01</td>
</tr>
<tr>
<td>9030 Safety Instructions for the Electrified Area</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>(Replaced by 2017 Working Around Electrical Infrastructure)</td>
<td></td>
</tr>
<tr>
<td>PTA Glossary</td>
<td>1.04</td>
</tr>
</tbody>
</table>
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

1001
SCOPE OF THE
PTA SAFEWORKING RULES
AND PROCEDURES
CONTENTS

1. Purpose ................................................................................................................. 3
2. Structure and Management of the PTA Safeworking Rules and Procedures...... 4
   2.1. Development ................................................................................................. 4
   2.2. Structure of the PTA Safeworking Rules and Procedures ............................. 4
   2.3. Managing the Rules and Procedures .......................................................... 5
   2.4. Unusual Working ...................................................................................... 5
3. Extent of the Network ............................................................................................ 5
   3.1. Interface Locations Between Public Transport Authority and Arc Infrastructure ........................................................................................................ 7
       3.1.1. Midland .................................................................................................. 7
       3.1.2. Woodbridge ....................................................................................... 7
       3.1.3. Kenwick ............................................................................................ 7
       3.1.4. Armadale .......................................................................................... 7
       3.1.5. Fremantle .......................................................................................... 8
4. Intent of the PTA Safeworking Rules and Procedures ....................................... 8
5. Train Control ......................................................................................................... 9
   5.1. Object of the Train Control System ............................................................. 9
   5.2. Emergency Procedures ............................................................................. 9
   5.3. Communication ......................................................................................... 9
6. Reference ............................................................................................................. 10
7. Effective Date ...................................................................................................... 10
1. **PURPOSE**

The purpose of this rule is to set out the structure of the Public Transport Authority (PTA) *Safeworking Rules and Procedures*, their application and use, and reference documents used.

The PTA *Safeworking Rules and Procedures* provide the means by which the *Australian National Rules and Procedures (ANRP)* will be applied in the PTA Network.

During the development of the PTA *Safeworking Rules and Procedures*, the following has been considered:

- the role of the PTA as an *Access Provider* and *Operator*;
- the interface between the PTA and:
  - other *Operators*;
  - *Track* maintenance organisations;
  - other *Access Providers*;
  - suppliers to the PTA of goods and services.
- implementation of technological advancement; and
- existing *Safeworking* procedures, practices and their development.
2. STRUCTURE AND MANAGEMENT OF THE PTA SAFEWORKING RULES AND PROCEDURES

2.1. DEVELOPMENT

The PTA will draw down applicable rules and procedures from the Rail Industry Safety Standards Board (RISSB) website and so far as reasonably practicable will be consistent with the ANRP.

Where there is an ANRP rule and procedure for a subject the PTA will combine these into a single document and alter them as necessary to meet the PTA’s current methods of operation.

Where there is no ANRP rule or procedure provided or where the ANRP rule or procedure does not meet the needs of the PTA, the PTA will develop its own rule or procedure.

2.2. STRUCTURE OF THE PTA SAFEWORKING RULES AND PROCEDURES

The structure of each of the PTA Safeworking Rules and Procedures will include, at a minimum, the following:

- a name and number;
- a purpose statement;
- a date stating when the rule or procedure comes into effect; and
- a revision number.

Where there is a defined term or word it will be italicised and the first letter of each word will be capitalised to indicate that the term or word is included in the Glossary.

Where a Handsignal or verbal command, for example STOP, EMERGENCY, ALL CLEAR, DANGER, WARNING or CAUTION, appears within a rule or procedure, the word will be capitalised.

If there are other rules and procedures or other PTA documents that are required to be read in conjunction with the rule or procedure, they shall be referenced in the document and in bold text. All referenced PTA documents shall be available on the PTA intranet.

Where appropriate, line drawings of equipment will be used to aid the reader to understand and comprehend the PTA’s Safeworking Rules and Procedures.

Diagrams will be used throughout the suite of documents and where applicable, will be drawn in 3D, to aid the reader in understanding and comprehending the PTA Safeworking Rules and Procedures.
2.3. MANAGING THE RULES AND PROCEDURES

Amendments to the PTA Safeworking Rules and Procedures must be Authorised by the Managing Director and Advertised before implementation. Amendments must be marked up to enable identification of changes. A controlled copy of the PTA Safeworking Rules and Procedures will be published on the PTA internet and intranet, or as provided by the PTA. The PTA Safeworking Rules and Procedures are uncontrolled when printed from the website. The PTA Safeworking Rules and Procedures will be:

- maintained electronically; and
- available for access and download.

2.4. UNUSUAL WORKING

Should a situation arise necessitating working beyond the limits prescribed in the PTA Safeworking Rules and Procedures, the Transperth Train Operations Manager may Authorise an Altered Working arrangement.

Any Altered Working arrangement must be in writing, Advertised to staff in advance, where practicable, and a Permanent Record maintained. Any Altered Working arrangement must ensure that:

- every reasonable precaution for the safe movement of Rail Traffic has been taken;
- every reasonable precaution for the Protection of Workers has been taken; and
- existing procedures are adopted wherever possible.

The Permanent Record of the Altered Working arrangement must be sent to the Manager Safeworking for retention.

3. EXTENT OF THE NETWORK

The PTA Network consists of the:

- Fremantle Line - the line from East Perth Station to Fremantle Station, Robbs Jetty;
- Midland Line – the line from East Perth Station to Midland Station;
- Armadale Line – the line from Claisebrook Station to Armadale Station, Mundijong Junction;
- Thornlie Line – the line from Beckenham Station to Thornlie Station;
- Joondalup Line – the line from Perth Underground Complex to Butler Station;
- Mandurah Line – the line from Perth Underground Complex to Mandurah Station; and
- City - Claisebrook Line – the line from Claisebrook Station to Perth Station.
FIGURE 3.1: Diagram of the PTA Network
3.1. INTERFACE LOCATIONS BETWEEN PUBLIC TRANSPORT AUTHORITY AND ARC INFRASTRUCTURE

At certain Locations there is an interface between the PTA and Arc Infrastructure (Arc). At these Locations there are operational and/or Signalling protocols to ensure the safe passage of Rail Traffic between the two Networks. These Locations are:

3.1.1. Midland

Midland is the Location where the PTA and Arc Network connect for Rail Traffic to enter and depart the eastern standard gauge line.

For Rail Traffic to enter the Arc Network, the Arc Train Controller must give the PTA Train Controller the slot on Signal 51.

For Rail Traffic to enter the PTA Network, the PTA Train Controller must give the Arc Train Controller the slot on Signal 28.

3.1.2. Woodbridge

Woodbridge is the Location where the PTA and Arc Network connect for Rail Traffic to enter and depart the Forrestfield and Kewdale depots.

For Rail Traffic to enter the Arc Network, the Arc Train Controller must give the PTA Train Controller the slot on Signal 95.

For Rail Traffic to enter the PTA Network, the PTA Train Controller must give the Arc Train Controller the slot on Signal 85.

3.1.3. Kenwick

Kenwick is the junction for the double line on the Armadale line and the single line to Kenwick East. The Points and Signals are controlled and operated from the PTA’s Train Control.

For Rail Traffic to enter the PTA Network, the PTA Train Controller must give the Arc Train Controller the slot on Signal 441.

3.1.4. Armadale

The PTA Section from Armadale Station to Mundijong Junction is controlled by the Arc Southwest Train Controller.

For Rail Traffic to depart Armadale Station towards Mundijong Junction, the Arc Train Controller must give the PTA Train Controller the slot on Signal 2R (the PTA refers to Signal 477).

For Rail Traffic to enter the Mundijong Junction to Armadale Section, the Arc Train Controller sets the Route and advises the PTA Train Controller.
3.1.5. Fremantle
The PTA Section from Robb Jetty to Fremantle Station is controlled by the Arc Southwest Train Controller.

Prior to any Rail Traffic departing Cockburn towards Fremantle Station, the Arc Train Controller must advise the PTA Train Controller.

Prior to any Rail Traffic departing North Quay the Rail Traffic Crew must:
- be in possession of an Arc Infrastructure Rail Train Order to Travel from Fremantle to Cockburn; and
- obtain Authority from the PTA Train Controller.

4. INTENT OF THE PTA SAFEWORKING RULES AND PROCEDURES
The PTA Safeworking Rules and Procedures are intended to provide a uniform and coordinated framework that promotes safety on the PTA Network.

The PTA Safeworking Rules and Procedures apply to all Rail Traffic operations, Train Control and Work on Track activities.

The PTA Safeworking Rules and Procedures support all other functional areas of the PTA’s Safety Management System including:
- occupational health and safety;
- Worker competence;
- interface coordination;
- incident management;
- Infrastructure standards; and
- Rollingstock Standards.
5. **TRAIN CONTROL**

5.1. **OBJECT OF THE TRAIN CONTROL SYSTEM**

The *Train Control* system enables *Safeworking* for a given area to be under the control of one *Train Controller*.

The *Train Controller*:
- is in charge of the management of *Rail Traffic* working;
- is in charge of the *Issue of Work on Track Authorities* in their area of control; and
- is responsible for the initiation of alternative procedures following *Rail Traffic* failures, *Derailments*, accidents, etc.

The *Train Controller*’s instructions must be carried out provided they do not conflict with the PTA’s *Safeworking Rules and Procedures* or endanger the safety of passengers, *Workers* and *Infrastructure*.

5.2. **EMERGENCY PROCEDURES**

The management of day to day operational delays and emergencies is detailed in the PTA’s *Safeworking Rules and Procedures*. However, should a major accident or any other *Emergency* of major significance occur, the PTA 9000-000-011 *Emergency Management Manual* is to be enforced.

*Emergency* procedures will be initiated by the responsible *Train Controller* on becoming aware of a situation where such action is warranted.

5.3. **COMMUNICATION**

Communication to or from the *Train Controller* may be by radio, telephone or other available means.

All radio communication must be in accordance with correct radio discipline and voice procedures as outlined in Rule 2007 *Network Communications* and on the prescribed radio channels allocated to specific areas.

All communications into and out of *Train Control* will be recorded.
6. REFERENCE

Rule 1002 Principles of Network Operations
Rule 1003 General Responsibilities for Safety
Rule 1004 Track Access Accreditation
Rule 2007 Network Communications

7. EFFECTIVE DATE

1 November 2018
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Safeworking System .............................................................................................. 4
   3.1. Absolute Block System ................................................................................ 4
   3.2. Permissive Block Working ............................................................................ 4
   3.3. Double Line Working .................................................................................... 4
   3.4. Single Line Working ..................................................................................... 4
4. Work on Track Authorities – For Work That Obstructs the Track or Affects Track Geometry ................................................................. 5
   4.1. Local Possession Authority .......................................................................... 5
   4.2. Track Occupancy Authority ......................................................................... 5
5. Work Methods – For Work That Does Not Affect Infrastructure Integrity .......... 5
   5.1. Absolute Signal Blocking .............................................................................. 5
   5.2. Lookout Working .......................................................................................... 6
6. Accessing the Rail Corridor for Work ................................................................... 6
   6.1. Entering the Rail Corridor for Work .............................................................. 6
7. Reference .............................................................................................................. 6
8. Effective Date ........................................................................................................ 6
1. **PURPOSE**

The purpose of this rule is to set out:
- the operating principles of the Public Transport Authority (PTA) Network;
- the Safeworking system used; and
- PTA’s conditions for managing safe Occupancy of the Track.

2. **GENERAL**

The following are the underlying principles of Safeworking:
- a Safety Assessment must be completed before entering the Danger Zone;
- when in the Danger Zone, all Workers must be protected;
- Workers must have an identified Safe Place when on Track;
- if Rail Traffic cannot be separated from Workers, the Rail Traffic must be managed to ensure the safety of the Workers on the Track;
- Work on Track must only be carried out using a defined Work on Track Authority or method;
- the person who introduces the risk must ensure that the risk is appropriately managed;
- Workers must be provided with the applicable information;
- Workers must be warned about hazards in the Rail Corridor;
- Competent Workers must have the ability and responsibility to carry out a Safety Assessment, where required;
- common protocols and methods for communication must be adopted;
- Safe Rail Traffic separation must be maintained;
- Safe Route Integrity must be established for all Rail Traffic;
- Rail Traffic Integrity must be ensured before and during a journey; and
- an approved, simplified and common system for degraded operations may be formulated to apply in all Systems of Safeworking.
3. SAFEWORKING SYSTEM

3.1. ABSOLUTE BLOCK SYSTEM

Absolute Block is a system that ensures that Rail Traffic is not permitted to enter a Block until the previous Rail Traffic has passed completely out of the Block.

An exception to this is when providing assistance to Disabled Rail Traffic in accordance with the rules and procedures.

3.2. PERMISSIVE BLOCK WORKING

The object of Permissive Working is to facilitate the regular movement of Rail Traffic by dividing the line between Controlled Locations into Blocks and automatically maintaining the required distance between following Rail Traffic.

This type of working prevents Rail Traffic from entering a Block until the previous Rail Traffic has passed completely out of the Block, except when providing assistance to Disabled Rail Traffic in accordance with the rules and procedures.

All Signals displaying a Stop Aspect must be treated as an Absolute Signal.

3.3. DOUBLE LINE WORKING

The object of Double Line Working is to provide a separate line for Up and Down Main movements, allowing for greater density of Rail Traffic.

3.4. SINGLE LINE WORKING

The object of Single Line Working is to prevent Rail Traffic travelling in opposite directions between two Controlled Locations at the same time.

In Centralised Traffic Control (CTC), this is accomplished:

- in the case of following Rail Traffic, by electrically securing the Signals at Stop, unless the Block ahead of the Signal is Clear; and

- in the case of opposing Rail Traffic, by electrically monitoring the Occupancy of Rail Traffic and the indication of the Departure Signal at the opposite end of the Section. Therefore, it would not be possible for the Departure Signals at opposite ends of the Section to exhibit a Proceed Indication simultaneously.
4. **WORK ON TRACK AUTHORITIES – FOR WORK THAT OBSTRUCTS THE TRACK OR AFFECTS TRACK GEOMETRY**

In all Systems of Safeworking, work that Obstructs the Track, affects Track geometry, and/or places Workers and Rail Traffic at risk, requires an Authority that is Issued by the Train Controller in one of the following ways:

4.1. **LOCAL POSSESSION AUTHORITY**

- The Local Possession Authority (LPA) is Issued by the Train Controller.
- The LPA is used for major or complex Work on Track for a specified period. This Authority transfers the management of a defined Section of Track to a Possession Protection Officer (PPO).
- Multiple Worksites are permitted within the LPA.
- Rail Traffic associated to the Worksites is permitted under the LPA.
- The PPO receives the LPA in writing on a Work on Track Authority Form.

4.2. **TRACK OCCUPANCY AUTHORITY**

- The Track Occupancy Authority (TOA) is Issued by the Train Controller.
- The TOA permits Occupancy of a defined Section of Track for Work on Track while Rail Traffic is diverted or not Authorised to enter the Section, for a specified period.
- The TOA is for a single Worksite.
- Rail Traffic associated to the Worksite is permitted under the TOA.
- The Protection Officer (PO) receives the TOA in writing on a Work on Track Authority Form.

5. **WORK METHODS – FOR WORK THAT DOES NOT AFFECT INFRASTRUCTURE INTEGRITY**

Work in the Danger Zone that does not affect Infrastructure integrity and ensures a Safe Place is available for Workers requires the Train Controller and PO to provide Protection in one of the following ways:

5.1. **ABSOLUTE SIGNAL BLOCKING**

- Absolute Signal Blocking (ASB) is implemented by the Train Controller.
- ASB is used to protect Workers who occupy a defined Section of Track for work in the Danger Zone while Rail Traffic is not Authorised to enter the Section.
- The PO and the Train Controller record the use of ASB for Protection.
- The PO receives confirmation of ASB on the Absolute Signal Blocking Form.
5.2. LOOKOUT WORKING

- **Lookout Working** is used to protect Workers who occupy a defined Section of Track for work in the Danger Zone between Rail Traffic movements.
- The PO records the use of Lookout Working.

6. ACCESSING THE RAIL CORRIDOR FOR WORK

No-one is permitted to enter the Rail Corridor without the appropriate Authority.

6.1. ENTERING THE RAIL CORRIDOR FOR WORK

Before entering the Rail Corridor the PO or Competent Worker must log into the PTA Electronic Book On System.

If for any reason the PTA Electronic Book On System fails to record the details then the Infrastructure Control Officer (ICO) must be contacted.

7. REFERENCE

Rule 3001 Local Possession Authority
Rule 3005 Track Occupancy Authority
Rule 3011 Absolute Signal Blocking
Rule 3013 Lookout Working
Rule 5001 Centralised Traffic Control System

8. EFFECTIVE DATE

1 November 2018
1003 General Responsibilities for Safety
1. Purpose .......................................................................................................................... 3
2. General ......................................................................................................................... 3
   2.1. Safety First When Working on the Network ......................................................... 3
   2.2. Prevention of Injury ............................................................................................ 4
   2.3. Management of Fatigue ..................................................................................... 4
   2.4. Drugs and Alcohol .............................................................................................. 4
   2.5. Rail Traffic ......................................................................................................... 5
      2.5.1. Stationary Rail Traffic .............................................................................. 5
   2.6. Reporting Injuries and Unsafe Conditions ....................................................... 6
   2.7. Investigating Safety Incidents ........................................................................... 7
   2.8. Witnesses and Evidence ..................................................................................... 7
   2.9. Damage to Property ........................................................................................... 7
   2.10. Condition of Tools and Equipment ................................................................ 7
   2.11. Personal Protective Equipment ........................................................................ 8
3. Network Time ............................................................................................................... 8
4. PTA Safeworking Rules and Procedures ................................................................. 9
5. Reference ..................................................................................................................... 9
6. Effective Date ............................................................................................................... 9
1. PURPOSE

The purpose of this rule is to set out the general responsibilities of all Workers in the Public Transport Authority (PTA) Network regarding:

- safety and safe conduct of activities;
- incidents and injuries;
- compliance with the PTA Safeworking Rules and Procedures;
- instructions and notices;
- use of drugs and/or alcohol; and
- general conduct.

2. GENERAL

2.1. SAFETY FIRST WHEN WORKING ON THE NETWORK

**WARNING**

In case of doubt or uncertainty, Workers must take the safest course of action.

Safety is the most important element in performing duties and is something all Workers are responsible for.

All users of the PTA Network have a duty of care to ensure the health and safety of themselves and others at all times.

Before entering the Rail Corridor, Protection Officers and Competent Workers must log into the PTA Electronic Book On System.

If for any reason the Electronic Book On System fails to record the details then the Infrastructure Control Officer (ICO) must be contacted.

**NOTE**

Where a group of Workers are under the Protection of a Protection Officer (PO), the PO is the only member of the Work Group permitted to log into the PTA Electronic Book On System.
2.2. PREVENTION OF INJURY

Before starting work, Workers must:
- assess the risks associated with their proposed actions;
- plan their work;
- have the current applicable Network Notice(s);
- follow all instructions;
- be alert and attentive when performing their duties;
- expect the movement of Rail Traffic at any time, on any Track, and in any direction;
- not stand on the Track in front of approaching Rail Traffic or other moving equipment;
- be aware of the Location of structures or obstructions where clearances are limited; and
- not use mobile phones, radios or other Communication Devices while standing in the Danger Zone. Calls must only be made when in a Safe Place.

2.3. MANAGEMENT OF FATIGUE

Workers must:
- not present themselves for duty or continue to perform work whilst fatigued; and
- manage their off-duty time and preparation for duty to avoid the possible effects of fatigue.

2.4. DRUGS AND ALCOHOL

**WARNING**

It is prohibited to consume, possess, or be under the influence of alcohol, illicit drugs, or over-the-counter/prescription medication that may adversely affect safe performance, while on duty.

Workers must not:
- report for duty, remain on duty or be in the PTA Network with any concentration of alcohol detectable in blood or breath analysis;
- report for duty, remain on duty or be in the PTA Network while under the influence of illicit drugs; or
- use over-the-counter or prescription medication that may adversely affect safe performance while on duty in accordance with the PTA 9002-000-001 - Alcohol and Other Drugs Policy.
2.5. RAIL TRAFFIC

Workers have a responsibility to observe passing Rail Traffic for potential defects which may include:

- signs of alarm from passengers;
- loading irregularities;
- braking defects;
- dragging equipment;
- fire; and
- the absence or non operation of an End-of-Train Marker.

2.5.1. Stationary Rail Traffic

Workers must not climb through or walk between stationary Rail Traffic where the gap is less than 10 metres.

An exception to this rule is where Rail Traffic Crew are required to conduct repairs or inspections and only when the Rail Traffic is made safe by the application of an approved safety measure.

NOTE

The safety measure must include placing the Electric Multiple Unit or Motive Power Unit controller into Neutral and the full service application of automatic brakes.
2.6. REPORTING INJURIES AND UNSAFE CONDITIONS

Any incident or defect that may affect the safety of Rail Traffic must be reported to the Train Controller immediately in accordance with the PTA 9210-000-004 Reporting Health, Safety and Environmental Incidents Procedure.

Workers must report by the first available means:

- any breach of rules and procedures;
- any incidents or injuries;
- any faults in Track, bridges, Signals or Rail Traffic that could affect the operation of the PTA Network; and
- any other unsafe condition that may affect the safety of the PTA Network.

Unsafe conditions may include:

- a failure of a Signalling or communications system that forms part of the System of Safeworking;
- any improper loading of Rail Traffic or any load that has shifted on Rail Traffic;
- Dangerous Goods leakages or spillages;
- any failure of a wheel or axle on Rail Traffic or any overheated axle bearings;
- any Track defects, including broken or misaligned rails; and
- severe weather conditions that may include:
  - heavy rainfall;
  - high winds;
  - rising water levels; and
  - high temperatures.

NOTE

If in doubt concerning an unsafe condition, report it.
2.7. Investigating Safety Incidents

Investigations will be conducted in accordance with:

- Australian Standard (AS) 4292.7 Railway Safety Management – Rail Safety Investigation; and
- PTA 9110-000-015 Investigating Health, Safety and Environmental Incidents Procedure.

2.8. Witnesses and Evidence

Accurate evidence must be obtained following an incident to help determine causal factors and prevent recurrence.

The Incident Controller of the incident site must make all reasonable attempts to obtain the names, addresses and occupations of all people involved.

Workers must preserve an incident site and associated evidence as far as practicable until Authorised Investigators arrive at the site.

Workers must not withhold information or fail to give all the facts to an Authorised Investigator regarding incidents, dangerous occurrences, unsafe conditions, unusual events, accidents, personal injuries, or rule breaches.

NOTE

The preservation of the incident site is of secondary importance to the rescue and treatment of people or the prevention of environmental damage.

2.9. Damage to Property

Infrastructure or Rail Traffic damaged as a result of an incident must be inspected by a Competent Worker before further use.

2.10. Condition of Tools and Equipment

Workers must:

- check the safe condition of equipment and tools they use to perform their duties;
- not use defective equipment or tools; and
- report any defects to their supervisor.
2.11. Personal Protective Equipment

*Workers* must wear, as a minimum, the following Personal Protective Equipment (PPE):
- safety footwear; and
- high visibility clothing (orange).

During the hours of darkness or *Low Visibility*, high visibility clothing must have retro reflective material in accordance with AS/NZS 4602.1 *High Visibility Safety Garments*.

*Workers* must wear appropriate PPE for the task and *Location* of the work. This may include:
- hard hats (e.g. construction site);
- safety glasses;
- wide brim hats;
- sun screen;
- gloves;
- safety harnesses;
- welding goggles; and
- flash shields.

All safety equipment must be used and worn correctly and meet the relevant Australian Standard.

**NOTE**

PPE must be securely fastened to prevent contact with moving plant or equipment.

---

3. Network Time

The 24 hour system of time reference shall be used.

All *Workers* must observe Australian Western Standard Time, which is synchronised with PTA's *Train Control*.

**NOTE**

Australian Western Daylight Savings Time will be observed if used.
4. PTA SAFEWORKING RULES AND PROCEDURES

The PTA Safeworking Rules and Procedures are in place to ensure that activities performed in the PTA Network are done in a uniform and safe manner.

Operators must maintain a record of Special Notices and other documentation.

Workers must:

- comply with the PTA Safeworking Rules and Procedures when performing their duties;
- report to Train Control any negligent practice or violation of the PTA Safeworking Rules and Procedures;
- ask their supervisor for an explanation of any rule, procedure or instruction of which they are uncertain; and
- be trained, assessed, and Competent in the duties associated with the performance of their work.

NOTE
In case of doubt or uncertainty, Workers must take the safest course of action.

5. REFERENCE

Rule 1004 Track Access Accreditation
PTA 9002-000-001 Alcohol and Other Drugs Policy
PTA 9110-000-015 Investigating Health Safety and Environmental Incidents Procedure
PTA 9202-000-006 Fatigue Management Policy
PTA 9210-000-004 Reporting Health Safety and Environmental Incidents Procedure
AS 4292.7 Railway Safety Management - Rail Safety Investigation
AS/NZS 4602.1 High Visibility Safety Garments

6. EFFECTIVE DATE

1 November 2018
## CONTENTS

1. Purpose .................................................................................................................. 3
2. General .................................................................................................................. 3
   2.1. Purpose of a TAP .......................................................................................... 3
   2.2. Cancellation and Suspension of a Track Access Permit ......................... 4
   2.3. Age Restrictions ......................................................................................... 4
3. Accessing the Rail Corridor .................................................................................. 4
4. Exemption Certificates .......................................................................................... 4
5. General Exemptions .............................................................................................. 5
6. National Standard for Health Assessment of Rail Safety Workers .................. 6
7. Track Access Accreditation Levels ........................................................................ 6
8. Obtaining a Track Access Permit ........................................................................ 7
   8.1. Expiry of Track Access Permit ................................................................. 7
9. Reference .............................................................................................................. 8
10. Effective Date ...................................................................................................... 8
1. PURPOSE

The purpose of this rule is to outline the types of Track Access Permits (TAP) applicable to the Public Transport Authority (PTA) Network and provide information on obtaining a TAP, and to outline when Exemption Certificates and General Exemptions will be issued.

2. GENERAL

The TAP process applies to any Worker required to access the Rail Corridor for any reason.

For work in depots, Workers must:

- hold a minimum TAP of Supervised Worker (SW);
- report to the Depot Master prior to commencing any work; and
- receive site-specific induction as required.

Exceptions to the requirement to hold a TAP or Exemption Certificate are:

- work at stations and public access areas of stations, when it does not involve working in the Danger Zone and will not encroach into the trackside of the safety line on a station or Platform. The Facilities and Infrastructure Branch is responsible for providing an induction to these Workers. These Workers may access the toilets that are trackside providing they are accompanied by suitable qualified staff (See Section 7 Supervised Worker);
- emergency services personnel. These personnel will be under the direct control of the Incident Controller;
- delivery drivers delivering material or picking up material from sites. These personnel will be under the direct control of the Protection Officer (PO); and
- works where the area of Track defined by the Work on Track Authority has been closed to Rail Traffic and the Overhead Line Equipment (OLE) has been Isolated and a Permit to Work has been Issued.

All Workers are required to make available their TAP or Exemption Certificate for inspection when requested. Failure to do so will result in the Worker being unable to work on the PTA Network.

2.1. PURPOSE OF A TAP

The purpose of a TAP is to ensure Workers are made aware of hazards that exist when working on or around the PTA Network and have the competence to apply PTA Safewarking Rules and Procedures relevant to their track access accreditation level.
2.2. CANCELLATION AND SUSPENSION OF A TRACK ACCESS PERMIT

The Manager Safeworking or delegate may at any time cancel or suspend the TAP of a worker e.g. for breaches of safety or failure to comply with the PTA 9002-000-001 Alcohol and Other Drugs Policy.

2.3. AGE RESTRICTIONS

A Worker must be 16 years of age or older to hold a Supervised Worker TAP and be 18 years of age or older to hold all other levels of TAPs.

3. ACCESSING THE RAIL CORRIDOR

**WARNING**

A PTA TAP does not automatically give the Worker the right to enter the Rail Corridor.

No-one is permitted to access the Rail Corridor for any reason without:

- a current TAP or Exemption Certificate;
- a valid reason to access the Rail Corridor; and
- the appropriate Authority to carry out work.

4. EXEMPTION CERTIFICATES

Exemption Certificates may be issued to Workers who, by the nature of their work, do not work regularly on the PTA Network and do not have a TAP.

An Exemption Certificate can only be issued under the Authority of the General Manager Network & Infrastructure.

When an Exemption Certificate is issued:

- it is valid for one period up to five days or as approved by the General Manager Network & Infrastructure (N&I);
- the Non-Accredited Worker must be directly supervised by an Accredited Worker;
- the Non-Accredited Worker must be under the direct Protection of the PO; and
- the PO must, prior to entering the Rail Corridor, provide the Non-Accredited Worker with a safety briefing outlining:
  - the hazards in the Rail Corridor; and
  - the actions expected of the Non-Accredited Worker to Warning signs and sounds.
An Exemption Certificate can be issued singularly or for a group of Workers. When issued for a group of Workers, all Worker’s names must be on the certificate.

5. **GENERAL EXEMPTIONS**

A General Exemption may be issued for a Worksite, exempting all Workers working within that Worksite, from holding a TAP.

A General Exemption can only be issued under the Authority of the General Manager Network & Infrastructure or delegate.

A General Exemption can be issued when the Worksite:

- can be completely separated by a fence that will prevent Workers accessing the Danger Zone; or
- is safely separated from the Rail Corridor.

When a General Exemption is issued:

- in addition to any other induction or briefing, all Workers must be given a safety brief outlining:
  - the limits of the General Exemption; and
  - the access and egress points of the exempted Worksite;
- a Permanent Record of the safety briefing must be maintained; and
- a copy must be readily available for inspection.
6. **NATIONAL STANDARD FOR HEALTH ASSESSMENT OF RAIL SAFETY WORKERS**

The health assessment (medical) standards for track access accreditation levels are set out in the National Transport Commission’s (NTC’s) *National Standard for Health Assessment of Rail Safety Workers*.

The aim of a health assessment is to detect conditions that may impact on a Worker’s:

- vigilance and attentiveness to their work; and
- ability to detect and react quickly to oncoming *Rail Traffic or Warnings*.

**NOTE**

For further information on the National Standard for Health Assessment of Rail Safety Workers, refer to the NTC website ([www.ntc.gov.au](http://www.ntc.gov.au)).

---

7. **TRACK ACCESS ACCREDITATION LEVELS**

<table>
<thead>
<tr>
<th>TRACK ACCESS ACCREDITATION LEVEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised Worker (SW)</td>
<td>This level of TAP shows the Worker has the understanding of the hazards in the Rail Corridor and provides Supervised Workers with knowledge of the mitigation of those hazards.</td>
</tr>
<tr>
<td>PTA Individual Access (IA)</td>
<td>This level of TAP permits Workers to work in the Rail Corridor. It does not permit them to remain within the Danger Zone without being protected by a PO.</td>
</tr>
<tr>
<td>Protection Officer L1 (PO1) (Lookout Working) *</td>
<td>This level of TAP shows the Worker has the understanding of hazards in the Rail Corridor and is Competent to provide Lookout Working for a Worksite.</td>
</tr>
<tr>
<td>Protection Officer L2 (PO2) (ASB) *</td>
<td>This level of TAP shows the Worker has the Competence to provide Protection to a Worksite by using an ASB.</td>
</tr>
<tr>
<td>Protection Officer L3 (PO3) (TOA) *</td>
<td>This level of TAP shows the Worker has the Competence of a PO2 and the Competence to provide Protection to a Work Group by using a TOA.</td>
</tr>
</tbody>
</table>
TABLE 6.1: Accreditation (TAP) Levels

* Some POs may require training in the operation of Road Rail Vehicles and other Track Vehicles. These POs will be trained and assessed in the appropriate competencies and their TAPs will be endorsed accordingly.

8. OBTAINING A TRACK ACCESS PERMIT

Processing and maintaining the record of TAPs is the responsibility of the PTA Learning and Organisational Development (L&OD) Branch.

8.1. EXPIRY OF TRACK ACCESS PERMIT

A TAP will expire on the anniversary of the Safeworking training or health assessment date, whichever is the earliest.
9. **REFERENCE**

N&I 8230-100-006 Pre-Start/Hazard Report/JSA Form  
NTC National Standard for Health Assessment of Rail Safety Workers  
PTA 9002-000-001 Alcohol and Other Drugs Policy  
PTA 9402-000-092 Obtaining and Managing Safeworking Competencies Policy and Procedure

10. **EFFECTIVE DATE**

1 November 2018
# Contents

1. Purpose ......................................................................................................................... 3
2. General ........................................................................................................................... 3
   2.1. The Danger Zone .................................................................................................... 3
   2.2. Safe Place ............................................................................................................. 3
3. Walking in the Danger Zone ....................................................................................... 4
   3.1. When Walking in the Danger Zone ...................................................................... 5
4. Rail Traffic Crew .......................................................................................................... 5
5. Reference ...................................................................................................................... 5
6. Effective Date ............................................................................................................... 6
1. PURPOSE

The purpose of this rule is to provide instructions for Workers on Walking in the Danger Zone in the Public Transport Authority (PTA) Network.

2. GENERAL

Workers must not walk in the Danger Zone where there is a practical alternative. Walking in the Danger Zone is:

- walking from place to place within the Danger Zone; and
- doing no work other than placing or removing Protection for a worksite or Rail Traffic.

2.1. THE DANGER ZONE

The Danger Zone is everywhere within three (3) metres horizontally from the nearest rail and any distance above or below this three (3) metres, unless a Safe Place exists or can be created.

2.2. SAFE PLACE

A Safe Place is defined as a place where Workers and equipment cannot be struck by Rail Traffic.

A Safe Place is:

- at least three (3) metres clearance between the Worker and the nearest rail line;
- behind a structure or barrier erected to provide Protection;
- behind a designated Safety Line; or
- a place created following the use of a rule that stops Rail Traffic.
3. WALKING IN THE DANGER ZONE

Before entering the Danger Zone, Workers must check that Track(s) are Clear of approaching Rail Traffic.

WARNING

Rail Traffic can approach from either direction at any time.

Where Workers must walk in the Danger Zone:

- an easily-reached Safe Place must be identified and communicated to all Workers; and
- visibility conditions must allow enough Sighting Distance for Workers to reach the Safe Place before the arrival of Rail Traffic.
3.1. WHEN WALKING IN THE DANGER ZONE

When *Walking in the Danger Zone*, a *Worker* must:

- wear compliant high-visibility clothing and safety footwear;
- where possible, walk in the direction of approaching *Rail Traffic*;
- look frequently in both directions for approaching *Rail Traffic*;
- carry a light during the hours of darkness and when visibility is limited;
- not step on *Points*, interlocking equipment or on rails; and
- carry equipment to enable communication with *Train Control*.

4. RAIL TRAFFIC CREW

*Rail Traffic Crew* may need to walk in the *Danger Zone* to perform tasks associated with the operation of *Rail Traffic*. This includes, but is not limited to:

- operation of *Points* and associated *Infrastructure*;
- vehicle examination, including preparation to enter the *PTA Network*;
- preparation of *Disabled Rail Traffic* for assistance; and
- minor repairs or other tasks, en route.

*Rail Traffic Crew* must assess the risks of *Walking in the Danger Zone* and may include risks associated with:

- the required tasks;
- *Rail Traffic* on *Adjacent* lines;
- the ability to communicate with the *Train Controller*;
- the ability to communicate with other *Workers* in the vicinity; and
- operation of *Rail Traffic*.

**NOTE**

Where required the *Rail Traffic Crew* must arrange for *Adjacent lines* to be protected as per Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

5. REFERENCE

Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines
6. EFFECTIVE DATE

1 November 2018
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROcedures

2003
HANDSIGNALS AND VERBAL COMMANDS
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
   2.1. Giving Handsignals ...................................................................................... 3
   2.2. Responding Handsignals and Verbal Commands ....................................... 4
3. Use of Handsignals and Verbal Commands .......................................................... 4
   3.1. Handsignalling at a Signal .......................................................................... 5
   3.2. Standing Clear of Controlled Absolute Signal ............................................. 5
4. Emergency or Danger Handsignals and Verbal Commands .................................. 5
5. Stop Handsignals .............................................................................................. 5
6. Warning / Caution Handsignals ........................................................................... 5
7. Proceed at Normal Handsignals ........................................................................... 6
8. All Clear Handsignals .......................................................................................... 6
9. General Handsignals ............................................................................................. 7
   9.1. Stop .............................................................................................................. 7
   9.2. Emergency or Danger .................................................................................. 7
   9.3. Warning / Caution ........................................................................................ 7
   9.4. Proceed at Normal Speed ............................................................................ 8
   9.5. All Clear ........................................................................................................ 8
10. Shunting Handsignals and Verbal Commands ..................................................... 8
    10.1. Move Away ................................................................................................... 8
    10.2. Move Away Slowly ...................................................................................... 9
    10.3. Move Towards ............................................................................................ 9
    10.4. Move Towards Slowly ............................................................................... 9
    10.5. Close Up or Couple Up ............................................................................. 10
    10.6. Admit .......................................................................................................... 10
11. Reference ............................................................................................................ 10
12. Effective Date ...................................................................................................... 10
1. PURPOSE

The purpose of this rule is to detail the protocols for giving movement commands to Rail Traffic Crew in the Public Transport Authority (PTA) Network.

These commands control the movement of Rail Traffic through a Level Crossing, Worksite or during a Shunting Operation.

2. GENERAL

2.1. GIVING HANDSIGNALS

*Hands signals* must be given:

- facing the *Rail Traffic*;
- in such a position that there can be no misunderstanding as to the purpose of the *Handsignal*;
- in a clear and timely manner; and
- so that the *Hands signals* will be received and acted upon only by those who are being *Signalled*.

During *Shunting Operations*, where it is not possible to face the *Rail Traffic*, the *Handsignaller* must be satisfied that the *Rail Traffic Crew* can see all *Hands signals* or use an alternative method of communications e.g. radio.

A *Handsignaller* must:

- be in or have access to a *Safe Place*;
- be in clear view of those who are being *Signalled*; and
- as required, communicate with:
  - *Train Controllers*;
  - *Protection Officers (PO)*; and
  - *Rail Traffic Crew*.

At worksites and *Level Crossings*, the *Handsignaller* must remain at the required *Location*, unless they are:

- replaced by another *Handsignaller*; or
- no longer required.

If conditions such as visibility change, the *Handsignaller* must tell the *PO*.

When Handsignalling at a *Level Crossing* or *Controlled Absolute Signal* and visibility changes, the *Handsignaller* must tell the *Train Controller*.

In the *Electrified Area*, *Hands signals* conveyed by hand, flag or light must not be given above the head unless the *Worker* giving the *Handsignal* is standing on the ground.
2.2. RESPONDING TO HANDSIGNALS AND VERBAL COMMANDS

If the meaning of a Handsignal or verbal command is not understood, Rail Traffic Crew must stop the Rail Traffic to clarify the meaning.

Rail Traffic Crews must:

- obey Handsignals and verbal commands; and
- acknowledge Handsignals and verbal commands, other than those given as part of Shunting.

3. USE OF HANDSIGNALS AND VERBAL COMMANDS

Rail Traffic movement through a Worksite or during Shunting Operations must be directed by continual Handsignals or regular verbal commands.

Handsighals must be given using:

- flags or hands during daylight; and
- lights during the hours of darkness or Low Visibility.

A Handsignal must be continued:

- for an ALL CLEAR Handsignal, until acknowledged by the Rail Traffic Crew;
- for NORMAL SPEED and WARNING / CAUTION Handsignals, until the cab of the leading Rail Traffic has passed the Handsignaller;
- for a STOP Handsignal, until:
  - the Rail Traffic has stopped; or
  - the Handsignaller displays another Handsignal.

Where verbal commands are used to direct Rail Traffic movement, the Competent Worker directing the movement and the Rail Traffic Crew, must communicate at agreed intervals.

During Shunting Operations, if the Rail Traffic Crew lose sight of the Handsignaller, or after travelling half the nominated distance, there is no further Handsignal or verbal command, the Rail Traffic Crew must:

- bring the movement to a stop;
- sound the Whistle; and
- not move again until regular Handsignals or verbal commands are re-established.

When verbal commands are used for Shunting, the Rail Traffic Crew must be told the direction and distance to be travelled.
3.1. HANDSIGNALLING AT A SIGNAL

If Handsignalling at a Controlled Absolute Signal the Handsignaller must:

- be able to see whether the Controlled Absolute Signal is at Stop; and
- if Rail Traffic is required to stop, give a STOP Handsignal until Rail Traffic has stopped.

If the Controlled Absolute Signal being held at stop goes to clear, the Handsignaller must:

- tell the Train Controller to set the Controlled Absolute Signal at stop; and
- inform the PO where provided.

3.2. STANDING CLEAR OF A CONTROLLED ABSOLUTE SIGNAL

A Handsignaller must stand well away from the Controlled Absolute Signal if:

- Rail Traffic is not required to stop; or
- not Handsignalling at a Signal.

4. EMERGENCY OR DANGER HANDSIGNALS AND VERBAL COMMANDS

Rail Traffic Crew must stop their Rail Traffic immediately if they receive an EMERGENCY or DANGER Handsignal communicated by:

- vigorous and erratic waving of arms, a flag or a light; or
- a verbal command “STOP, STOP, STOP”.

5. STOP HANDSIGNALS

Rail Traffic Crew must stop their Rail Traffic if they receive a STOP Handsignal given by:

- a red flag;
- a red light; or
- both hands held high.
6. WARNING / CAUTION HANDSIGNALS

A WARNING / CAUTION Handsignal tells a Rail Traffic Crew to reduce to Restricted Speed, or to Travel at Restricted Speed.

A Handsignaller waves a yellow flag or yellow light from side to side to give Rail Traffic Crew a WARNING / CAUTION Handsignal when protecting a worksite.

Rail Traffic Crew must Travel at Restricted Speed until the last Rail Traffic has passed the worksite.

7. PROCEED AT NORMAL SPEED HANDSIGNALS

A Handsignaller holds a green flag or green light steady to give Rail Traffic Crew the PROCEED AT NORMAL SPEED Handsignal.

8. ALL CLEAR HANDSIGNALS

An ALL CLEAR Handsignal tells Rail Traffic Crew that Workers are aware of approaching Rail Traffic and the Workers will remain Clear until that Rail Traffic passes.

A Handsignaller holds up a steady white light or one hand to give the ALL CLEAR Signal.
### 9. GENERAL HANDSIGNALS

The following figures show the *Hands signals* that must be used in the PTA *Network*.

<table>
<thead>
<tr>
<th>Handsignal/Instruction</th>
<th>Verbal Command</th>
<th>Using Flags</th>
<th>Using Lights</th>
<th>Using Hands</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.1. STOP</strong></td>
<td>&quot;STOP&quot; or &quot;Red light&quot; during <em>Shunting Operations</em> only</td>
<td>Steady red flag</td>
<td>Steady red light</td>
<td>Both hands held high</td>
</tr>
<tr>
<td><strong>9.2. EMERGENCY OR DANGER</strong></td>
<td>&quot;STOP, STOP, STOP&quot;</td>
<td>Vigorous and erratic waving of flag</td>
<td>Waving any light in a vigorous and erratic manner</td>
<td>Vigorous and erratic waving of arms</td>
</tr>
<tr>
<td><strong>9.3. WARNING/CAUTION</strong></td>
<td>&quot;Reduce to, and travel at Restricted Speed&quot;</td>
<td>Wave yellow flag slowly</td>
<td>Wave yellow light slowly</td>
<td>Nil</td>
</tr>
</tbody>
</table>
### 9.4. Proceed at Normal Speed

<table>
<thead>
<tr>
<th>Handsignal/Instruction</th>
<th>Verbal Command</th>
<th>Using Flags</th>
<th>Using Lights</th>
<th>Using Hands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Proceed at Normal speed&quot;</td>
<td><img src="image" alt="Steady green flag" /></td>
<td><img src="image" alt="Steady green light" /></td>
<td>Nil</td>
</tr>
</tbody>
</table>

### 9.5. All Clear

<table>
<thead>
<tr>
<th>Handsignal/Instruction</th>
<th>Verbal Command</th>
<th>Using Flags</th>
<th>Using Lights</th>
<th>Using Hands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;I am aware of your approach&quot;</td>
<td><img src="image" alt="Nil" /></td>
<td><img src="image" alt="Steady white light" /></td>
<td><img src="image" alt="One hand held up" /></td>
</tr>
<tr>
<td></td>
<td>&quot;Clear to Proceed&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. Shunting Handsignals and Verbal Commands

<table>
<thead>
<tr>
<th>Signal/Instruction</th>
<th>Verbal Command</th>
<th>Using Flags</th>
<th>Using Lights</th>
<th>Using Hands</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1. Move Away</td>
<td>Say the identification (ID) of the person being addressed; then say &quot;Move away from me&quot;</td>
<td><img src="image" alt="Nil" /></td>
<td><img src="image" alt="Swing white light backwards and forwards beside body" /></td>
<td><img src="image" alt="Hold one hand up and outwards and wave in a vertical circle" /></td>
</tr>
</tbody>
</table>

2003 Handsignals and Verbal Commands Rev1.00
Date: 01 November 15
Page 8 of 10
<table>
<thead>
<tr>
<th>Handsignal/Instruction</th>
<th>Verbal Command</th>
<th>Using Flags</th>
<th>Using Lights</th>
<th>Using Hands</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.2. MOVE AWAY SLOWLY</td>
<td>“(Your ID) Move slowly away from me”</td>
<td>Nil</td>
<td>Swing green light backwards and forwards beside body</td>
<td>Hold one hand up and outwards and wave in a vertical circle. Hold the other hand up and outwards.</td>
</tr>
<tr>
<td>10.3. MOVE TOWARDS</td>
<td>“(Your ID) Move towards me”</td>
<td>Nil</td>
<td>Wave white light slowly back and forth across the body</td>
<td>Wave one hand slowly back and forth overhead</td>
</tr>
<tr>
<td>10.4. MOVE TOWARDS SLOWLY</td>
<td>“(Your ID) Move towards me slowly”</td>
<td>Nil</td>
<td>Wave green light slowly back and forth across the body</td>
<td>Wave one hand slowly back and forth overhead, holding the other hand up and outwards</td>
</tr>
<tr>
<td>Signal / Use</td>
<td>Verbal Command</td>
<td>Using Flags</td>
<td>Using Lights</td>
<td>Using Hands</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>10.5.</strong></td>
<td><em>(Your ID)</em> Close Up or <em>(ID)</em> Couple Up</td>
<td>Nil</td>
<td>Wave green light slowly back and forth across the body</td>
<td>Hold both hands up and outwards and repeatedly bring hands together to form an arch</td>
</tr>
<tr>
<td><strong>CLOSE UP OR COUPLE UP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10.6.</strong></td>
<td><em>(Your ID)</em> OK to enter</td>
<td>Wave green flag slowly back and forth across body</td>
<td>Wave green light slowly back and forth across the body</td>
<td>Hold one hand up and outwards</td>
</tr>
<tr>
<td><strong>ADMIT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**11. REFERENCE**
Nil

**12. EFFECTIVE DATE**
1 November 2015
CONTENTS

1. Purpose ................................................................................................................. 3

2. General.................................................................................................................. 3
   2.1. Communication Fundamentals ................................................................. 3
   2.2. Confirmation of Communication ............................................................... 3
   2.3. Relaying Communications ........................................................................ 3

3. Emergency Communication .................................................................................. 4
   3.1. Emergency Radio Communications .......................................................... 4

4. Spoken Communication ........................................................................................ 5
   4.1. Spoken Numbers ....................................................................................... 5
   4.2. Phonetic Alphabet (Spoken Letter Names) .................................................. 6
   4.3. Standard Terms ........................................................................................ 7
   4.4. Recording Spoken Communications ......................................................... 7

5. Communication Protocols ..................................................................................... 8
   5.1. Identification ............................................................................................. 8
   5.2. Open-Channel Communications ............................................................... 8
   5.3. Abbreviated Identification ....................................................................... 8
   5.4. Completing Safeworking Forms ............................................................... 8
   5.4. Written Communication Abbreviations .................................................... 9

6. Communications Equipment ............................................................................... 10
   6.1. Defective Equipment ................................................................................ 10

7. Reference ............................................................................................................ 10

8. Effective Date ...................................................................................................... 10
1. PURPOSE

The purpose of this rule is to provide protocols for the effective use of spoken and written communications between Train Controllers, Workers, Rail Traffic Crew and other users in the Public Transport Authority (PTA) Network.

2. GENERAL

Effective Communications are essential for safety in the PTA Network.

2.1. COMMUNICATION FUNDAMENTALS

Communications in the PTA Network must be:

- clear, brief and unambiguous;
- relevant to the task at hand; and
- agreed as to its meaning before being acted upon.

Communications may be spoken, written or electronic transmissions.

Communications must use the 24 hour system of time.

Communication equipment used for railway operations must be tested for correct operation:

- for Rail Traffic, prior to entry on to the PTA Network; and
- for Work on Track, prior to starting work.

2.2. CONFIRMATION OF COMMUNICATION

The receiver must confirm the content of spoken or written communication by repeating the message back to the sender, if requested by Train Control, or the communication is about:

- an Occupancy Authority;
- an instruction not to Proceed;
- Special Working; or
- a Condition Affecting the Network (CAN).

The receiver must not act on spoken or written communication until the sender confirms that the message has been repeated correctly.

2.3. RELAYING COMMUNICATIONS

If it is not possible for a sender to communicate directly with an intended receiver, a Competent Worker may relay the content.

The content of a communication must be relayed exactly as it was received.
3. **EMERGENCY COMMUNICATION**

When required to communicate in an *Emergency*, *Workers* are to use whatever communication method is available, with radio communications being the first priority.

*Emergency* communications must:

- start with “EMERGENCY, EMERGENCY, EMERGENCY”;
- be given priority; and
- be answered immediately.

If there is an *Emergency* message on an *Open-Channel* radio, other users of the channel must stop transmission immediately.

Unless they are answering or aiding the *Emergency* call, *Workers* must not transmit unless they are certain no interference will result.

### 3.1. EMERGENCY RADIO COMMUNICATIONS

If an *Emergency* button is fitted, the *Worker* must:

- press the *Emergency* button;
- if there is no immediate answer, follow the steps for if an *Emergency* button is not fitted;
- when the receiver answers, give their *Location* and the *Emergency* message; and
- exchange necessary information and directions.

If an *Emergency* button is not fitted, the *Worker* must:

- transmit: “EMERGENCY, EMERGENCY, EMERGENCY. This is *(Worker’s identification)*”;
- give brief details about the *Emergency*;
- if there is no immediate answer, pause;
- repeat “EMERGENCY, EMERGENCY, EMERGENCY. This is *(Worker’s identification)*” and details about the *Emergency*, and keep repeating until answered by the receiver;
- give the *Location* and the *Emergency* message; and
- exchange the necessary information and directions.
4. SPOKEN COMMUNICATION

Open-Channel communication must use the standard terms and protocols in this rule and must be acknowledged promptly.

**WARNING**

*Competent Workers* must not assume that a receiver has understood a message before the receiver confirms that the message has been understood.

If the meaning of a spoken communication is not understood:
- the receiver must ask that it be repeated;
- if necessary, the sender and receiver must use the Phonetic Alphabet and spoken numbers to clarify and confirm the message; or
- arrange alternative means to communicate with the sender.

4.1. SPOKEN NUMBERS

When transmitting numbers, a *Competent Worker* must:
- use the spoken numbers in the following table;
- stress the syllables in capital letters; and
- for a decimal point, say "Day Cee Mal".

<table>
<thead>
<tr>
<th>FOR DIGIT</th>
<th>SAY</th>
<th>FOR DIGIT</th>
<th>SAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>ZE-ROh</td>
<td>5</td>
<td>FIFE</td>
</tr>
<tr>
<td>1</td>
<td>WUN</td>
<td>6</td>
<td>SIX</td>
</tr>
<tr>
<td>2</td>
<td>TOO</td>
<td>7</td>
<td>SEV-en</td>
</tr>
<tr>
<td>3</td>
<td>TREE</td>
<td>8</td>
<td>AIT</td>
</tr>
<tr>
<td>4</td>
<td>FOW-er</td>
<td>9</td>
<td>NINE-er</td>
</tr>
</tbody>
</table>
### 4.2. Phonetic Alphabet (Spoken Letter Names)

When it is necessary to spell words, the *Competent Worker* must use the spoken letter names in the following table:

**Stress the syllables in capital letters.**

<table>
<thead>
<tr>
<th>FOR</th>
<th>LETTER NAME</th>
<th>SAY</th>
<th>FOR</th>
<th>LETTER NAME</th>
<th>SAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ALPHA</td>
<td>AL-fah</td>
<td>N</td>
<td>NOVEMBER</td>
<td>No-VEM-ber</td>
</tr>
<tr>
<td>B</td>
<td>BRAVO</td>
<td>BRAH-voh</td>
<td>O</td>
<td>OSCAR</td>
<td>OSS-cah</td>
</tr>
<tr>
<td>C</td>
<td>CHARLIE</td>
<td>CHAR-lee</td>
<td>P</td>
<td>PAPA</td>
<td>pah-PAH</td>
</tr>
<tr>
<td>D</td>
<td>DELTA</td>
<td>DELL-tah</td>
<td>Q</td>
<td>QUEBEC</td>
<td>keh-BECK</td>
</tr>
<tr>
<td>E</td>
<td>ECHO</td>
<td>ECK-oh</td>
<td>R</td>
<td>ROMEO</td>
<td>ROW-me-oh</td>
</tr>
<tr>
<td>F</td>
<td>FOXTROT</td>
<td>FOKS-trot</td>
<td>S</td>
<td>SIERRA</td>
<td>see-AIR-rah</td>
</tr>
<tr>
<td>G</td>
<td>GOLF</td>
<td>GOLF</td>
<td>T</td>
<td>TANGO</td>
<td>TANG-go</td>
</tr>
<tr>
<td>H</td>
<td>HOTEL</td>
<td>hoh-TEL</td>
<td>U</td>
<td>UNIFORM</td>
<td>YOU-nee-form</td>
</tr>
<tr>
<td>I</td>
<td>INDIA</td>
<td>IN-dee-ah</td>
<td>V</td>
<td>VICTOR</td>
<td>VIK-tah</td>
</tr>
<tr>
<td>J</td>
<td>JULIET</td>
<td>JEW-lee-ETT</td>
<td>W</td>
<td>WHISKY</td>
<td>WISS-key</td>
</tr>
<tr>
<td>K</td>
<td>KILO</td>
<td>KEY-loh</td>
<td>X</td>
<td>X-RAY</td>
<td>ECKS-ray</td>
</tr>
<tr>
<td>L</td>
<td>LIMA</td>
<td>LEE-mah</td>
<td>Y</td>
<td>YANKEE</td>
<td>YANG-key</td>
</tr>
<tr>
<td>M</td>
<td>MIKE</td>
<td>MIKE</td>
<td>Z</td>
<td>ZULU</td>
<td>ZOO-loo</td>
</tr>
</tbody>
</table>
4.3. **STANDARD TERMS**

A *Competent Worker* must only use these standard terms to convey these meanings:

<table>
<thead>
<tr>
<th>TERM</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency, Emergency, Emergency</td>
<td>This is an <em>Emergency</em>.</td>
</tr>
<tr>
<td>Correct</td>
<td>Yes. You are right.</td>
</tr>
<tr>
<td>I read back</td>
<td>I am going to repeat all, or part, of your statement exactly as I received it.</td>
</tr>
<tr>
<td>I say again</td>
<td>I am going to repeat all, or part, of my last statement.</td>
</tr>
<tr>
<td>I spell</td>
<td>I am going to use the Phonetic Alphabet.</td>
</tr>
<tr>
<td>Loud and clear</td>
<td>Your signal is strong, and every word is understood.</td>
</tr>
<tr>
<td>Message received</td>
<td>I clearly received and understood your message.</td>
</tr>
<tr>
<td>Negative</td>
<td>No. Not correct.</td>
</tr>
<tr>
<td>Out</td>
<td>My transmission is complete.</td>
</tr>
<tr>
<td>Over</td>
<td>I have finished speaking and I am waiting for a reply.</td>
</tr>
<tr>
<td>Read back</td>
<td>Repeat all, or a specified part of my message back to me exactly as you received it.</td>
</tr>
<tr>
<td>Receiving</td>
<td>I acknowledge your call. Proceed with the message.</td>
</tr>
<tr>
<td>Say again</td>
<td>Please repeat your last statement.</td>
</tr>
<tr>
<td>Speak slower</td>
<td>Repeat what you said, speaking more slowly. It is hard to understand you.</td>
</tr>
<tr>
<td>Stand by</td>
<td>Wait. I will be back to you soon.</td>
</tr>
</tbody>
</table>

4.4. **RECORDING SPOKEN COMMUNICATIONS**

If spoken communication recording equipment is provided, it must be used to record *Train Control* communications.

The recordings must be kept for at least 90 days.
5. COMMUNICATION PROTOCOLS

5.1. IDENTIFICATION

Communications must begin with identification of the receiver, followed by identification of the sender.

Rail Traffic Crew communications must include the sender’s Rail Traffic Identification Number.

Communications from a worksite must include the sender’s:

- name;
- Safeworking designation; and
- Location (include Structure Numbers where appropriate).

5.2. OPEN-CHANNEL COMMUNICATIONS

Competent Workers using Open-Channel radios must:

- except in an Emergency, check that the channel is not already in use before starting a transmission;
- if a reply is expected, use the term “OVER” to end each statement; and
- to end each transmission, use the term “OUT”.

5.3. ABBREVIATED IDENTIFICATION

An abbreviated identification may be used, after making an initial positive identification, for Shunting or similar operations within a Yard or terminal on a dedicated Shunting channel.

5.4. COMPILING SAFEWORKING FORMS

Competent Workers compiling Safeworking forms, Work on Track Authorities and records must:

- complete all required items on the form;
- write clearly in permanent ink;
- write numbers in numerals, not words, using for example “12” instead of “twelve”; and
- draw a single line through errors, and initial the corrections; or compile a new form if an error is made.

If Safeworking forms include items that have a checkbox before them, the Competent Worker must:

- tick the box [✓] if it applies, and complete the item; or
- place a cross in the box [✗] if the item does not apply.

If forms include options, text that does not apply must have a single line drawn through it.
Unless otherwise specified, *Safeworking* forms and other records must be kept for at least 90 days.

### 5.5. WRITTEN COMMUNICATION ABBREVIATIONS

Use the following standard abbreviations approved by the PTA in written *Safeworking* communications:

<table>
<thead>
<tr>
<th>ABBREVIATION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCT</td>
<td>Junction</td>
</tr>
<tr>
<td>KM</td>
<td>Kilometre</td>
</tr>
<tr>
<td>LOCO</td>
<td>Locomotive</td>
</tr>
<tr>
<td>No</td>
<td>Number</td>
</tr>
<tr>
<td>SN</td>
<td>Special Notice</td>
</tr>
<tr>
<td>STN</td>
<td>Special Train Notice</td>
</tr>
<tr>
<td>TM</td>
<td>On-Track Machine</td>
</tr>
</tbody>
</table>
6. COMMUNICATIONS EQUIPMENT

Communication equipment Authorised by the PTA, or compatible with PTA equipment may be used to establish Effective Communication in the PTA Network.

Before Rail Traffic operates in the PTA Network, equipment to communicate with Train Control must be working correctly.

Before entering the PTA Network, Rail Traffic Crew must be aware of:
- communication protocols; and
- radio channels for each type of communication equipment.

6.1. DEFECTIVE EQUIPMENT

If PTA Train Control communication equipment is defective, the Train Controller must:
- tell Maintenance Representatives about the faulty equipment; and
- establish alternative communication methods.

If Rail Traffic communication equipment is defective, Rail Traffic Crew must:
- use a third party to relay messages; or
- use Wayside communications equipment.

If Rail Traffic communication equipment becomes defective, use mobile phones where available.

7. REFERENCE

Procedure 9016 Written Authorities and Forms

8. EFFECTIVE DATE

4 December 2017
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

2009
REPORTING
AND RESPONDING
TO A CONDITION
AFFECTING
THE NETWORK
(CAN)
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Responding ........................................................................................................... 3
   3.1. Train Controller assurances ......................................................................... 3
   3.2. Warning rail traffic crew ............................................................................ 4
   3.3. Imposing speed restrictions ....................................................................... 4
   3.4. Altering and cancelling speed restrictions ............................................... 5
   3.5. Declaring the CAN to be a major incident ............................................ 5
   3.6. Infrastructure restoration ............................................................................ 5
4. Evidence retention ................................................................................................ 5
5. Return to normal working .................................................................................... 5
6. Reference .............................................................................................................. 6
7. Effective Date ........................................................................................................ 6
1. PURPOSE

The purpose of this rule is to detail instructions for reporting and responding to unsafe conditions affecting or potentially affecting the Public Transport Authority (PTA) Network and rail operations.

2. GENERAL

Conditions that can or do affect the safety of operations in the PTA Network must be reported promptly to the Train Controller responsible for the affected Section.

At times it may be necessary to reduce the speed of Rail Traffic to protect Infrastructure and to ensure the safety of Rail Traffic during periods of severe weather.

The Train Controller must make a Permanent Record about the report.

3. RESPONDING

If necessary, the Competent Worker reporting the Condition Affecting the Network (CAN) must:

- prevent Rail Traffic from approaching the affected Section; and
- where instructed by the Train Controller, protect the Obstructed line in accordance with the following rules;
  - Rule 3001 Local Possession Authority;
  - Rule 3005 Track Occupancy Authority;
  - Rule 3011 Absolute Signal Blocking; or
  - Procedure 9000 Clipping Points.

The Train Controller must promptly provide advice about the CAN to:

- Maintenance Representatives;
- other affected Train Controllers;
- affected Operator's Representatives; and
- Emergency Services, as required.

3.1. TRAIN CONTROLLER ASSURANCES

As necessary, affected Train Controllers must:

- arrange to warn Rail Traffic Crew approaching the affected Section;
- arrange to prevent Rail Traffic from approaching the affected Section;
- apply a Blocking Facility as necessary;
3.2. WARNING RAIL TRAFFIC CREW

The Train Controller must give Warning of the CAN to Rail Traffic Crew if:

- a faulty or potentially faulty Level Crossing has been reported;
- Level Crossing Warning equipment has been deactivated;
- Rail Traffic must be restrained; and
- Speed Restrictions have been imposed.

Where possible, the Train Controller must arrange for Rail Traffic Crew to be given written Warning before Rail Traffic enters the affected Section.

If it is not possible for Rail Traffic Crew to be given written Warning, the Train Controller must tell affected Rail Traffic Crew about the CAN by whatever means available.

Rail Traffic Crew must acknowledge and comply with CAN Warnings.

The Train Controller must continue to warn Rail Traffic Crew entering the affected Section until:

- the CAN no longer exists; or
- Rail Traffic Crew are warned by other means.

3.3. IMPOSING SPEED RESTRICTIONS

The Train Controller must be notified of weather conditions that require Speed Restrictions to be imposed, by the Maintenance Representative.

The Train Controller must arrange for advice about Speed Restrictions, and the hours during which the restrictions apply, to be given to affected Rail Traffic Crew and other affected Workers.

Unless different advice is given, weather Speed Restrictions apply only on the day they are imposed.

NOTE
As weather Speed Restrictions may cover extended and remote areas of Track, Speed Restriction signage is not necessary.
3.4. ALTERING AND CANCELLING SPEED RESTRICTIONS

Maintenance Representatives must notify the Train Controller if weather Speed Restrictions are:

- altered; or
- no longer required.

If weather Speed Restrictions are altered or no longer required, the Train Controller must arrange to tell affected Rail Traffic Crew and other affected Workers.

3.5. DECLARING THE CAN TO BE A MAJOR INCIDENT

The Transperth Train Operations Manager may declare the CAN to be a Major Incident in accordance with the PTA 9000-000-011 Emergency Management Manual.

3.6. INFRASTRUCTURE RESTORATION

**WARNING**

Work in the Danger Zone must not commence until appropriate Protection is in place.

Infrastructure restoration work in the Danger Zone arising from a CAN must be undertaken only after the Protection Officer or Possession Protection Officer has obtained the appropriate Work on Track Authority.

4. EVIDENCE RETENTION

Evidence relevant to the incident must be protected and preserved as directed by the Incident Controller.

5. RETURN TO NORMAL WORKING

Rail Traffic may resume operation in the affected area only if:

- the Incident Controller tells the Train Controller that it is safe to do so;
- the Train Controller has Authorised resumption of operations; or
- Maintenance Representatives that have been asked to investigate a CAN, have Certified the line as safe for Rail Traffic before the Train Controller may Authorise return to normal working.
6. REFERENCE

Rule 2007 Network Communications
Rule 2015 Protecting Active Control Level Crossings
Rule 2023 Unplanned De-Energisation of Overhead Supply

7. EFFECTIVE DATE

19 February 2016
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Testing Warning Equipment .................................................................................. 3
   3.1. Testing Due to an Incident ........................................................................... 4
4. Rail Traffic That May Not Activate Track Circuits .................................................. 4
5. Active Control Level Crossings with Infrequent Rail Traffic ................................. 4
6. Extended Operation of Warning Equipment .......................................................... 5
7. Potentially Faulty Active Control Level Crossings ................................................. 5
8. Faulty Active Control Level Crossings ................................................................... 5
   8.1. Faulty Active Control Level Crossing Not Protected by a Competent Worker ... 6
9. Protection by Competent Workers ......................................................................... 6
10. Resuming Normal Operation ............................................................................... 6
11. Disablement and Re-Enablement of Active Control level crossings .................... 7
12. Wrong Running Direction Movements .................................................................. 7
13. Reference .............................................................................................................. 7
14. Effective Date ........................................................................................................ 7
1. PURPOSE

The purpose of this rule is to prescribe the requirements and protocols for managing and testing Active Control Level Crossings in the Public Transport Authority (PTA) Network.

2. GENERAL

Flashing light Warning Signals commence to operate when a Train reaches a predetermined Warning distance from the Active Control Level Crossing. This varies to provide an adequate Warning period appropriate to Track Speed.

If there is a road junction controlled by traffic lights in close proximity to the Active Control Level Crossing, an additional advanced Warning is provided to the traffic light controller. This is to ensure coordinated operation of the traffic lights and Active Control Level Crossing.

Where boom gates are provided in conjunction with flashing light Warning Signals, the operation is as follows:

- when the Train reaches the predetermined Warning distance, the flashing light Warning Signals will operate and bells will ring, and a white flashing side light will be exhibited to the Rail Traffic Crew;
- approximately six to ten seconds later the booms will commence to descend to form a barrier across the roadway;
- when the booms are fully lowered, the bells may cease to ring but the Warning lights will continue to flash;
- when the Rail Traffic is Clear of the Active Control Level Crossing, the booms will automatically rise to the vertical position; and
- flashing lights will continue to flash until the booms returns to a vertical position.

3. TESTING WARNING EQUIPMENT

Active Control Level Crossing Warning equipment must be tested by Authorised on-site testers.

A Permanent Record must be made of the test results.

Testing may be suspended only on the Authority of the Signals Maintenance Representative.
3.1. TESTING DUE TO AN INCIDENT

Where an incident occurs at a Active Control Level Crossing provided with flashing light warning signals and boom gates, a Maintenance Representative is to attend the Active Control Level Crossing as soon as practicable to report on the condition of equipment and to remedy any damage resulting from the incident. The report must be in accordance with the PTA 8110-600-040 Procedure for Reporting Wrong Side Failures/Irregularities.

4. RAIL TRAFFIC THAT MAY NOT ACTIVATE TRACK CIRCUITS

If Rail Traffic needs to use an Active Control Level Crossing operated automatically by Track Circuits, but the Rail Traffic cannot be relied upon to activate the Track Circuits, Rail Traffic Crew must:

- stop short of the Active Control Level Crossing; and
- if possible, manually operate the Active Control Level Crossing; or
- arrange to stop approaching road and pedestrian traffic.

Rail Traffic may proceed over the Active Control Level Crossing only if it is safe to do so.

**NOTE**

Track Circuit Shorting Clips must not be used to activate Active Control Level Crossing Warning equipment.

5. ACTIVE CONTROL LEVEL CROSSINGS WITH INFREQUENT RAIL TRAFFIC

If Rail Traffic needs to use an Active Control Level Crossing operated automatically by Track Circuits, and the Track Circuit cannot be relied on to operate correctly due to rail head condition, the Train Controller must treat the Active Control Level Crossing as faulty and arrange for Competent Workers to attend the Active Control Level Crossing and operate it manually.

If Competent Workers cannot attend, then the Active Control Level Crossing must be treated as faulty.
6. EXTENDED OPERATION OF WARNING EQUIPMENT

Where Rail Traffic has stopped and activates an Active Control Level Crossing, the Train Controller must arrange for Competent Workers to control the Active Control Level Crossing.

7. POTENTIALLY FAULTY ACTIVE CONTROL LEVEL CROSSINGS

If an Active Control Level Crossing is potentially faulty, the Train Controller must warn Rail Traffic Crew.

Rail Traffic Crew warned about a potentially faulty Active Control Level Crossing must approach the Active Control Level Crossing at a speed that allows Rail Traffic to stop short of the Active Control Level Crossing.

If it cannot be determined that the Active Control Level Crossing is working correctly, Rail Traffic must stop short of the Active Control Level Crossing to check whether the Warning equipment is operating correctly. Rail Traffic should then:

- if Warning equipment is operating correctly, Proceed; or
- if Warning equipment is not operating correctly, treat the Active Control Level Crossing as faulty; and
- as soon as practicable, report the condition of the Warning equipment to the Train Controller.

8. FAULTY ACTIVE CONTROL LEVEL CROSSINGS

If an Active Control Level Crossing is faulty, the Train Controller must:

- warn Rail Traffic Crew that the Warning equipment is faulty;
- arrange for a Competent Worker to protect the Active Control Level Crossing, or arrange to close the Active Control Level Crossing to road and pedestrian traffic;
- arrange for a Signals Maintenance Representative to attend; and
- make a Permanent Record of the details.
8.1. Faulty Active Control Level Crossing Not Protected by a Competent Worker

If a faulty Active Control Level Crossing is not protected by a Competent Worker, Rail Traffic Crew must:

- stop short of the Active Control Level Crossing; and
- if possible, manually operate the Active Control Level Crossing; or
- arrange to stop approaching road and pedestrian traffic; and
- proceed over the Active Control Level Crossing only if it is safe to do so.

9. Protection by Competent Workers

Competent Workers must not do other work when protecting the Active Control Level Crossing.

If one Competent Worker cannot safely protect an Active Control Level Crossing, additional Competent Workers must be used.

Competent Workers must leave functional Warning equipment in operation unless Authorised by the Train Controller.

Competent Workers may switch off Warning equipment only after they have received the Train Controller’s confirmation that no Rail Traffic is Closely Approaching.

10. Resuming Normal Operation

If told the Active Control Level Crossing has been tested and Certified as working correctly the Train Controller must:

- tell Competent Workers that normal working can be resumed;
- tell affected Rail Traffic Crew; and
- make a Permanent Record of the details.
11. Disablement and Re-enablement of Active Control Level Crossings

Disablement of an Active Control Level Crossing must only be undertaken by the Maintenance Representative in accordance with the PTA 8110-600-037 Procedure for Disabling Active Control Level Crossings.

If the Active Control Level Crossing has an active interface with Adjacent traffic lights the PTA 8110-600-029 Procedure for Bypassing the MRD Interface at Protected Level Crossings must also be followed.

12. Wrong Running Direction Movements

In the PTA Network, Active Control Level Crossings are designed to enable the flashing light Warning Signals and boom gates to function in the normal manner for Rail Traffic travelling in the Wrong Running Direction.

13. Reference

PTA 8110-600-029 Procedure for Bypassing the MRD Interface at Protected Level Crossings
PTA 8100-600-032 Procedure for the Scheduled Maintenance of Signalling Equipment
PTA 8110-600-037 Procedure for Disabling Active Control Level Crossings
PTA 8110-600-040 Procedure for Reporting Wrong Side Failures/Irregularities
PTA 8100-600-046 Signalling Equipment Maintenance Manual – Schedules of Maintenance Tasks

14. Effective Date

1 November 2018
CONTENTS

1. Purpose ................................................................................................................. 4
2. General .................................................................................................................. 4
3. Overhead Line Equipment ..................................................................................... 4
   3.1. Management of the Electrified Network ....................................................... 5
       3.1.1. General .......................................................................................... 5
       3.1.2. Electrical Control Officer ................................................................. 5
   3.2. Status of OLE ............................................................................................... 5
4. Working in an Electrified Area ............................................................................... 6
   4.1. Danger from Live Equipment ....................................................................... 6
   4.2. Electric Shock .............................................................................................. 6
   4.3. Work Proximity ............................................................................................. 6
       4.3.1. Work Greater than Three (3) Metres from Live OLE ...................... 7
       4.3.2. Work Less than Three (3) Metres but Greater than One (1) Metre
               from Live OLE .............................................................................. 7
       4.3.3. Work Less than One (1) Metre from Live OLE ............................... 7
       4.3.4. Work Above OLE ........................................................................... 7
       4.3.5. Work Near Western Power Lines ................................................... 7
   4.4. Portable Ladders .......................................................................................... 8
   4.5. Scaffolding ................................................................................................... 8
   4.6. Use of Umbrellas Prohibited ........................................................................ 8
   4.7. Use of Metal Tape Measures Prohibited ....................................................... 8
   4.8. Pipes ............................................................................................................ 8
   4.9. Water Use in the Electrified Area ................................................................. 9
   4.10. Electrical Appliances and Power Tools ........................................................ 9
   4.11. Foreign Objects ............................................................................................ 9
   4.12. Attachments ................................................................................................. 9
   4.13. Electric Multiple Unit Equipment .................................................................. 9
   4.14. Locomotives and All Other Vehicles in the Electrified Area ....................... 10
        4.14.1. Safe Clearance From OLE ............................................................ 10
        4.14.2. Stowing a Locomotive in the Electrified Area ............................... 10
   4.15. Electrical Infrastructure and OLE ............................................................... 10
5. Mobile Plant ......................................................................................................... 10
   5.1. Rail Maintenance Vehicles ........................................................................... 11
        5.1.1. Stabling Rollingstock or Road Rail Vehicles .................................. 11
        5.1.2. Track Vehicle Entering Electrified Area ........................................ 12
   5.2. Cranes ........................................................................................................... 12
6. Fire ....................................................................................................................... 13
7. Infrastructure Faults ................................................................. 14
   7.1. Damage to OLE ................................................. 14
   7.2. Defective Rail or Traction Bond ...................................... 14
   7.3. Boundary Fences ......................................................... 14
   7.4. Track Magnets ....................................................... 15
8. Faulty Power Supply Authority Equipment ......................................................... 15
9. Rollingstock and Wagons ................................................................. 15
   9.1. Loading Outlines ........................................... 15
   9.2. Wagon Tarpaulin and Covers ....................................... 15
   9.3. Diesel or Steam Locomotives ......................................... 16
10. Permit to Work ............................................................................. 16
    10.1. Planned Permits to Work ........................................ 16
    10.2. Permits to Work .......................................................... 16
         10.2.1. Issue of OLE Permit to Work ................................ 16
11. Vicinity Form .............................................................................. 18
12. Substation Access Requirements ......................................................... 18
13. Underground Services ........................................................................ 18
14. Faults in Electrical Infrastructure ............................................................... 19
15. Reference ....................................................................................... 22
16. Effective Date ............................................................................. 22
1. PURPOSE

The purpose of this rule is to provide information and protocols for persons to work safely in and around Electrical Equipment and Electrical Infrastructure in the Electrified Area in the Public Transport Authority (PTA) Network.

WARNING

All Workers must keep themselves, tools, equipment and materials at a Safe Distance from Electrical Equipment and Electrical Infrastructure.

2. GENERAL

These instructions relate only to Electrical Infrastructure within the Electrified Area. All other Occupational Health and Safety (OH&S) rules with respect to working on or around the PTA Network and industrial safety must also be adhered to.

Electrical Infrastructure includes:

- high-voltage and low-voltage wires and cables and Electrical Equipment on structures;
- Overhead Line Equipment (OLE) and associated equipment;
- electrical Conductors carried in above-ground troughs, or buried;
- low-voltage and high-voltage electrical switch rooms; and
- Substations.

These safety instructions must be understood and observed by Workers.

Any Worker working in the Electrified Area must have access to a current copy of and be conversant with these safety instructions.

3. OVERHEAD LINE EQUIPMENT

PTA OLE operates at a nominal 25,000 Volts, 50 Hertz, alternating Current (25kV, 50Hz, AC).

The OLE consists of concrete or steel masts, to which are attached Live cantilever frames supported on insulators. The Catenary Wire is attached to the top of the cantilever frames and the Contact Wire is suspended from the Catenary Wire by means of droppers. Also mounted on the masts are a Live Return Conductor and an Earth Wire. A Return Conductor must be treated as Live and dangerous at all times. Overhead Conductor Rail is installed on the PTA Network in specific tunnels with reduced electrical clearance.

The traction return system includes all conducting components which form a conducting path for the traction return Current in normal operation and in the case of fault scenarios.
The return circuit includes:

- running rails;
- return Current rails;
- return Current Conductors or Return Conductor (RC);
- Earth Wires;
- bonding;
- return Current cables; and
- all other components conducting return Currents.

3.1. MANAGEMENT OF THE ELECTRIFIED NETWORK

3.1.1. General

The Electrical Control Officer (ECO) controls the Electrified Area of the PTA Network and is located within Train Control in the Public Transport Centre.

3.1.2. Electrical Control Officer

ECO responsibilities include:

- monitoring and control of power for the Traction Distribution and OLE system; and
- performing and coordinating planned and Emergency De-Energisation and/or isolation procedures.

3.2. STATUS OF OLE

**WARNING**

There is a danger from false feeds, residual (capacitive) charge, induced voltage, back feeds, lightning or accidental energisation.

Generally, the status of OLE falls into the following categories:

- **Live** (energised and dangerous): When a potential difference exists between the equipment and earth.

- **De-Energised**: The status of OLE after Circuit Breakers and/or Isolators feeding an electrical Section have been opened and are electrically separated from the source. No earths are applied and no OLE Permit to Work Issued.

- **Within an OLE Permit to Work**: The status when OLE is disconnected and separated from all sources of electricity supply in such a way that this disconnection and separation is secure. Earths have been applied and an OLE Permit to Work describing the safe limits of work, has been Issued.
4. WORKING IN AN ELECTRIFIED AREA

4.1. DANGER FROM LIVE EQUIPMENT

**WARNING**
The OLE must be treated as Live until an OLE Permit to Work has been issued and members of the work party have 'signed on'.

All Workers must be vigilant of the risks and dangers of working near Live, high-voltage equipment.

A site-specific risk assessment must be either carried out, or supported by, a Person Responsible for Electrification Safety (PRES) before any work activity takes place.

The only occasions upon which the OLE may be approached are when:

- a Vicinity Form has been Issued (refer Section 11 Vicinity Form); or
- an OLE Permit to Work has been Issued (refer Section 10.2.1 Issue of OLE Permit to Work).

**WARNING**
Always follow these lifesaving rules of:
- always have a valid permit to work; and
- always test before touch.

4.2. ELECTRIC SHOCK

All Workers who work in the Electrified Area must be aware of and understand the protocols to be followed in the event of electric shock.

If a person sustains an electric shock, this must be reported to the ECO and the person must immediately consult a medical practitioner.

4.3. WORK PROXIMITY

In this section, 'work' does not include work which involves cranes. For cranes, refer to Section 5.2 Cranes.

Live OLE can include but not be limited to:
- booster transformers;
- Isolators; and/or
- emergency supply transformers.
4.3.1. **Work Greater Than Three (3) Metres from Live OLE**

Perform the site-specific risk assessment.

Determine the level of risk that people, equipment or other objects will be less than three (3) metres from Live OLE.

If that level of risk is acceptable, then work may be performed.

4.3.2. **Work Less Than Three (3) Metres but Greater Than One (1) Metre from Live OLE**

Perform the site-specific risk assessment.

Determine the level of risk that people, equipment or other objects will be less than three (3) metres but greater than one (1) metre from Live OLE.

If that level of risk is not acceptable, then an OLE Permit to Work is normally required.

There is an exception to this.

Demonstrate that controls can be implemented so that the level of risk that anything associated with the work, will be less than one (1) metre from Live OLE, is acceptable.

If that level of risk, with those controls in place, is acceptable, then a Vicinity Form must be issued, describing the controls.

4.3.3. **Work Less Than One (1) Metre from Live OLE**

Work which takes place less than one (1) metre from Live OLE requires either:

- an OLE Permit to Work; or
- Authorised Persons using Live line working tools.

Refer also Section 11 Vicinity Form.

4.3.4. **Work above OLE**

All work above the OLE must be separated by a solid barrier, so that the risk of liquid or debris falling onto OLE, is eliminated. If such elimination is not possible, then an OLE Permit to Work is required.

4.3.5. **Work Near Western Power Lines**

Perform the site-specific risk assessment.

Determine the level of risk that people, equipment or other objects will be less than six (6) metres from Western Power transmission overhead lines.

If that level of risk is not acceptable, then approval must be given by the Electrical Engineering Manager (EEM) before the work can proceed.
4.4. PORTABLE LADDERS

Metal and metal-reinforced ladders are prohibited from use in the Electrified Area. Fibreglass-reinforced, timber and other non-conductive ladders are permitted.

When ladders are being carried, they must be kept horizontal, at or below shoulder height and carried by at least two people. When positioning a ladder, care must be taken that it does not come within clearances of the OLE. Ladders must be secured prior to use.

NOTE
All Workers must take extra care when handling long objects near OLE.
When long pipes or long objects are being carried in the Electrified Area, they must be carried horizontally at or below shoulder height and by at least two people.

4.5. SCAFFOLDING

In order to erect scaffolding in any Location, including station premises, permission to do so is required from the EEM or their representative.

4.6. USE OF UMBRELLAS PROHIBITED

Use of umbrellas anywhere on the electrified Live 25kV OLE Network is prohibited. Public areas such as station Platforms are the exception.

4.7. USE OF METAL TAPE MEASURES PROHIBITED

Use of metal tape measures on the electrified Live 25kV OLE Network is prohibited. Non-conductive, insulated-type tape measures must be used.

4.8. PIPES

Prior to renewing or repairing gas, water or other metal pipes, either above ground or buried alongside the Track, a temporary Jumper Cable must be connected across any proposed gap in the pipe, before any disconnection is made. The Jumper Cable must be left in position until the pipe is again permanently connected.

If a metallic pipe must be replaced with a pipe made of plastic or any other insulating material; then the work must not be carried out without prior approval of the EEM or their representative.

The EEM or their representative must be notified prior to the installation or removal of any temporary Jumper Cable.

Where service pipes belonging to other utilities cross the Rail Corridor, insulated joints are deliberately introduced into such pipes to contain Traction Earth and reduce the effects of other Earthing systems. Care must be taken to ensure these insulated joints are never short Circuited by a temporary Jumper Cable, tool, or any other device.
4.9. WATER USE IN THE ELECTRIFIED AREA

All hoses used in the Electrified Area must be of high quality, with securely-screwed, metal fittings. All hoses and fittings must be inspected prior to use and only used if in good, serviceable condition. Any work near the OLE necessitating hosing with water which contains chemicals, requires written approval from the EEM or their representative. When hosing, special care must be taken to ensure that the water stream is not less than three (3) metres from:

- Live OLE; nor
- the electrical equipment mounted on Electric Multiple Units (EMUs).

4.10. ELECTRICAL APPLIANCES AND POWER TOOLS

Earthed, portable electrical appliances and power tools must not be used in the Electrified Area. Only double-insulated electrical appliances and power tools, which comply with the relevant Australian Standard, may be used. A square inside a square, as shown in the figure to the right, is the symbol marked on the case to show that equipment is double insulated.

4.11. FOREIGN OBJECTS

Unauthorised persons must not attempt to approach, nor remove, debris such as string, rope or wire from the OLE or from less than three (3) metres from OLE, or from the roof of Rollingstock. Unauthorised persons must keep themselves and others clear and report any such debris immediately to the ECO or Train Controller, who will arrange removal by Competent persons.

4.12. ATTACHMENTS

Nothing is to be fixed or attached to OLE or its supporting structures, without written Authority from the EEM or their representative.

4.13. ELECTRIC MULTIPLE UNIT EQUIPMENT

All electrical apparatus on the roof, in equipment boxes on the underframe and in the cupboards and lockers in the Drivers’ cabins of EMUs must be treated as Live and dangerous.
4.14. **Locomotives and all other vehicles in the electrified area**

4.14.1. **Safe clearance from OLE**

Perform a site-specific risk assessment.

In the risk assessment, consider the action of climbing onto Rail Traffic or a Track Vehicle.

If people were to be at a level that is above that of the cab floor of Rail Traffic or on the tray of the back of a truck or any other Track Vehicle, determine the level of risk that people or any object will then be less than three (3) metres from Live OLE.

If the level of risk is unacceptable, then such climbing is not permitted.

4.14.2. **Stowing a Locomotive in the Electrified Area**

Locomotives can only be stowed in the Electrified Area under Isolated OLE, or on an unwired road or equivalent.

4.15. **Electrical infrastructure and OLE**

For any work activity, including excavations, the person in charge of the work must ensure controls are in place to ensure both the stability of the Permanent Way and that bonding, masts and other lineside structures are neither affected nor damaged.

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5. **Mobile Plant**

Mobile plant is only permitted to be less than three (3) metres from Live OLE if controls are implemented and a Vicinity Form is Issued for the specific task.

To calculate clearances, consideration must be given to such encroachment by any part of the operator, any part of the machine or its load, or by anything affected by the activity.

When applying for a Vicinity Form for work associated with mobile plant, the applicant must include details of:

- the mobile plant make, size and registration number;
- proposed dates and times of work;
- the Location of proposed work;
- PRES name and contact details;
- restrictor chains, their certification date and minimum capacity (if chains are in use); and
- names of Workers who will perform the work and Track Access Permit number.

The application for a Vicinity Form must also demonstrate that appropriate controls will be in place.
The site-specific risk assessment must be performed. With appropriate controls in place, the resulting level of risk that people, equipment or other objects will be less than one (1) metre from Live OLE, must be acceptable.

If plant is fitted with electronic slew locks and/or restrictor chains, this must be noted in the safe work method statement.

The PRES must also ensure that:
- the complete restrictor chain and securing device is a minimum of 2 x the machine’s safe working limit or working load limit displayed on the mobile plant;
- the restrictor chain cannot be detached at any time whilst the mobile plant is in operation;
- the restrictor chain is tested, tagged and Certified; and
- if plant is fitted with electronic slew locks and/or restrictor chains, that these are detailed in the safety management plan and that their safe operation is demonstrated on site before use.

The PRES is responsible for ensuring that the controls associated with the Vicinity Form are implemented.

The Nominated Person (NP) who Issues the Vicinity Form must obtain confirmation from the PRES that the controls stated on the Vicinity Form will be in place for the duration of work for which a Vicinity Form is required.

The work must only occur while the PRES named on the Vicinity Form is on site. Each Vicinity Form is Issued for a specific task and to a specific PRES and is not transferable. If the conditions listed in the Vicinity Form cannot be met then there will be a need to apply for a Permit to Work.

5.1. RAIL MAINTENANCE VEHICLES

Only machines approved and entered onto the PTA 4010-100-107 - Approved Vehicle Register may be used in the Electrified Area.

The operator is responsible for ensuring that any slew locks and/or restrictor chains to be used are fit for purpose.

5.1.1. Stabling Rollingstock or Road Rail Vehicles

Any Rollingstock or Vehicles may be stabled in the Electrified Area under the following conditions:
- on an unwired road, so that there is no risk that people, equipment or other objects associated with the activity will be less than three (3) metres from normally Live OLE;
- governed by an OLE Permit to Work, if the level of risk that any part of a person, equipment or object could be less than one (1) metre from normally Live OLE, is acceptable;
- under De-Energised OLE, if there is an unacceptable level of risk that any part of a person could be less than three (3) metres but greater than one (1) metre, from normally Live OLE; or
under Live OLE, where controls are in place to ensure that a Worker is not at a level higher than the cab floor of Rollingstock or Road Rail Vehicles. The site-specific risk assessment will identify whether the level of risk is unacceptable.

5.1.2. Track Vehicle Entering Electrified Area
The Track Vehicle Operator must contact the ECO prior to on tracking, travelling on Track and again prior to starting work.

5.2. CRANES
All cranes working within the Electrified Area must have a PRES appointed. The PRES must ensure that the level of risk that any activity associated with works will be less than three (3) metres from Live OLE, is acceptable.

A clear work methodology addressing electrical clearance requirements, including lifting plans, must be submitted to the PTA as part of the approval process.

NOTE
It is the responsibility of the PRES supervising the crane to inform the operator of any electrical hazard that may be encountered and the limits of work which will apply during operations.

To calculate distances for work involving cranes, take into account the potential of the load to swing. At all times, the load must be greater than three (3) metres from Live OLE. Nothing associated with crane work can be above Live OLE, unless an OLE Permit to Work is in place. Nothing associated with the crane work, including the load, can be in the restricted area illustrated in Figure 5.1 below.
6. **FIRE**

Any fire in the *Electrified Area* must be immediately reported to the *ECO* or *Train Controller*. Communications with *Train Control* must be maintained for the incident duration or a mobile phone number utilised, so the person reporting the incident can be contacted as required.

To report a fire, include details regarding the type of fire, for example grass fire, and whether *Train* services could be disrupted.

Dry sand or earth is suitable for extinguishing a fire. Water must not be used on or near electrical equipment, until the electricity has been *Isolated*. Water must not be directed onto *Electrical Equipment*.

Immediate action must be taken to extinguish fires. Priority must be given to any fire likely to affect personnel, cables or other *Electrical Equipment*. The procedures in the PTA *Safeworking Rules and Procedures* must be observed.

If there is a fire on an *EMU*, consideration must be given to requesting an *Emergency De-Energisation of OLE*. Other actions that must be considered are:

- using an appropriate fire extinguisher (leaving *EMU* equipment lockers closed); and
- lowering the *Pantograph* and opening the *EMU* battery switch.

WARNING
Untrained persons must not attempt to extinguish fires near Electrical Infrastructure or Electrical Equipment.

7. INFRASTRUCTURE FAULTS

7.1. DAMAGE TO OLE
Any damage, smoking, excessive flashing or arcing on OLE or on any EMU must be immediately reported as an Emergency to the ECO or Train Controller. Information provided must include the time of the event, the EMU number (if involved) and the location of the Emergency.

7.2. DEFECTIVE RAIL OR TRACTION BOND
Any Traction Return Rail or Traction Bond found to be broken or defective must be reported immediately to the ECO, who must make arrangements for repairs, as quickly as possible. Some Traction Bonds are marked red and are known as red Bonds. These red Bonds must not be disturbed by anyone other than trained, Overhead Catenary Maintenance staff.

NOTE
A broken or damaged red Traction Bond must be treated as a hazardous situation and all Workers must keep clear.

Temporary Traction Bonding, to the satisfaction of the EEM or their representative, must be installed prior to any rail renewal or work involving breaking the Traction Return Rail.

Only Authorised Persons are permitted to apply and remove Temporary Traction Bonds.

7.3. BOUNDARY FENCES
Boundary fences are either bonded to the Traction Return Rail or isolated by an insulated fence panel. Any faulty Bond or defective fence insulation must be reported to the ECO, who must arrange repairs. Any new or replacement boundary fences must comply with the requirements of PTA 8110-800-047 - Boundary Fences in the Electrified Area.
7.4. TRACK MAGNETS

Automatic Power Control (APC) Track magnets are painted yellow and located each side of a neutral Section. Any APC Track magnet found to be loose, damaged or defective must be reported immediately to the ECO, who must promptly arrange for repair or replacement.

The ECO must also arrange with the Train Controller for the Rail Traffic Crew of any EMU which is to pass over the defective magnet, to be warned that the APC Track magnet is defective. The Rail Traffic Crew must trip the main Circuit Breaker on the Rail Traffic prior to entering the neutral Section and close it after passing through the neutral Section.

8. FAULTY POWER SUPPLY AUTHORITY EQUIPMENT

Any Worker noticing a Power Supply Authority overhead line which is not secure and which might fall across or near to the OLE, must remain well clear of any hanging wires and report the fault as an Emergency immediately, to the ECO or Train Controller. Any such wires or conductors must be treated as Live at all times.

9. ROLLINGSTOCK AND WAGONS

9.1. LOADING OUTLINES

To prevent damage to OLE and to Rail Traffic by coming into contact with, or close to, the OLE, the Rollingstock loading outlines must be strictly adhered to. Rollingstock loading outlines are shown in:

- PTA 8190-400-001 - Standard Gauge Mainline Code of Practice Track & Civil Infrastructure; and
- PTA 8190-400-002 - Narrow Gauge Mainline Code of Practice Track & Civil Infrastructure.

Rail Traffic Crew for steam Locomotives must ensure that no load is stacked higher than cab roof level and that tools and equipment are safely stowed and do not protrude above cab roof level. No Worker is permitted to stand on the load while the Rollingstock is under Live OLE.

9.2. WAGON TARPALIN AND COVERS

Tarpaulins and covers must be adequately secured to prevent them from becoming loose as a result of wind raising them and causing a trip to a Circuit Breaker, or damage to the OLE. Ropes must not hang loosely, as they too can damage equipment.
9.3. DIESEL OR STEAM LOCOMOTIVES

To avoid pollution damage to Electrical Equipment, when a Locomotive is being brought to a stand, the Driver should avoid stopping with the exhausts, stacks or vents directly underneath OLE insulators or structures.

10. PERMIT TO WORK

10.1. PLANNED PERMITS TO WORK

A request for an OLE Permit to Work must be submitted via the Manager Rail Infrastructure Access (MRIA), in accordance with PTA procedure 8510-000-010 - Planning for OLE Permit to Work, De-energisation and OLE Vicinity Form.

The Isolation Planner can be contacted via phone (08) 9326 3899. MRIA can be contacted via email to MRIA@pta.wa.gov.au.

10.2. PERMITS TO WORK

10.2.1. Issue of OLE Permit to Work

The OLE Permit to Work must only be Issued to a PRES, who is then responsible for ensuring compliance with all conditions relating to any OLE Permit to Work Issued to them.

**NOTE**

An OLE Permit to Work is a form signed and Issued by a NP, to a PRES, for work to be carried out on or near Isolated Electrical Equipment. The purpose of the form is to make known to the recipient exactly which equipment is Isolated and Earthed and upon which, or near to which, it is safe for the work to commence, only so far as the Electrical Equipment is concerned.

The OLE Permit to Work will show the:

- Track(s) concerned;
- Working Limits covered under the isolation;
- start and relinquish times;
- relevant signoffs by the NP and PRES; and
- residual electrical hazards.
NOTE
The NP must ensure that the PRES fully understands these conditions. The NP must brief the PRES regarding any additional electrical hazards, which could include cross feeds, Track Sectioning Cabin (TSC) roof bushings or bare feeders in the immediate area of the work concerned. It is the duty of the PRES to ensure that each Worker in the Work Group also understands these conditions. The PRES must also inform their relief of these conditions.

Each Worker in the Work Group must consider the OLE to be Live until they have signed onto the OLE Permit to Work.

The PRES is responsible for:

- explaining the Working Limits stated on the OLE Permit to Work to all members of the Work Group;
- ensuring that every member of the Work Group and/or any person responsible for the equipment, material or other items associated with the work which require an OLE Permit to Work, signs the rear of the OLE Permit to Work, prior to starting work;
- remaining at the site of the OLE Permit to Work and retaining the OLE Permit to Work until it is relinquished or handed over to a relief PRES. During handover to a new relief PRES, the new PRES must be fully briefed by the outgoing PRES and all Workers must be made aware of the changeover;
- explaining to a relief PRES, the conditions stated on the OLE Permit to Work, prior to signing over the OLE Permit to Work to the relieving PRES;
- contacting the NP either directly or via the ECO, to advise, when a PRES is relieved and providing the name, mobile phone number, Track Access Permit number and designation of the relief PRES, to the NP or ECO;
- ensuring that each Worker in the Work Group signs the rear of the OLE Permit to Work, prior to relinquishing the OLE Permit to Work, or prior to leaving the Worksite, to confirm that they and any materials, equipment and/or other objects associated with the work are clear of the OLE;
- ensuring that once the OLE Permit to Work has been signed off as relinquished, that the OLE is treated as Live and dangerous and that all Workers keep clear of OLE; and
- personally relinquishing the OLE Permit to Work to the NP (or relief) at or before the relinquishment time shown on the Permit to Work.
11. VICINITY FORM

The Vicinity Form must only be Issued to a PRES, who then is responsible for ensuring compliance with all conditions relating to any Vicinity Form Issued to them.

A Vicinity Form:

- is Issued by a NP to the PRES at the Worksite. Work under the Vicinity Form must only be performed while the PRES is on site;
- is not an OLE Permit to Work;
- can only be used with a documented safe system of work which reduces the risk level to acceptable, that people, equipment or other objects come to be less one (1) metre from Live OLE;
- is not transferable to any other person (or PRES); and
- is Issued prior to starting work greater than one (1) and less than three (3) metres from Live OLE.

All necessary clearances and controls must be included on the Vicinity Form. Where possible, a diagram must be included, to help clarify clearances and/or controls. Where mobile plant is being used, the requirements of Section 5 Mobile Plant must be complied with.

The NP will hand the original form to the PRES and a copy will be retained by the NP.

12. SUBSTATION ACCESS REQUIREMENTS

Permission to enter buildings or compounds containing high-voltage equipment can only be granted by the EEM or their representative. Prior to entering, a Worker must complete an induction.

If the smell of burning or rotten eggs is experienced upon entry, then immediately leave the building or compound and inform the ECO.

Prior to any work starting in a building or compound containing high-voltage equipment, a written work methodology must be provided and accepted by the EEM or their representative.

Accessing a Substation:
Contact ECO on (08) 9326 2722 and register the arrival and estimated departure times.

Departing a Substation:
Contact ECO on (08) 9326 2722 and register the departure.

13. UNDERGROUND SERVICES

It is prohibited to dig, break the ground or drive anything into the ground, before the whereabouts of buried services and underground cables are located.
14. Faults in Electrical Infrastructure

If possible, refer to these diagrams when reporting faults, fallen OLE or fires in OLE.

**Figure 14.1: Typical Single Track Cantilever Arrangement**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Earth Wire</td>
</tr>
<tr>
<td>2</td>
<td>Return Conductor</td>
</tr>
<tr>
<td>3</td>
<td>Insulators</td>
</tr>
<tr>
<td>4</td>
<td>Top Tube</td>
</tr>
<tr>
<td>5</td>
<td>Strut Tube</td>
</tr>
<tr>
<td>6</td>
<td>Catenary Wire</td>
</tr>
<tr>
<td>7</td>
<td>Registration Tube</td>
</tr>
<tr>
<td>8</td>
<td>Nose Dropper</td>
</tr>
<tr>
<td>9</td>
<td>Wind Stay Dropper</td>
</tr>
<tr>
<td>10</td>
<td>Contact Wire</td>
</tr>
<tr>
<td>11</td>
<td>Steady Arm</td>
</tr>
<tr>
<td>12</td>
<td>Concrete mast</td>
</tr>
<tr>
<td>13</td>
<td>Foundation</td>
</tr>
</tbody>
</table>

**RAIL LEVEL**

**GROUND LEVEL**
FIGURE 14.2: Typical Back to Back Cantilever Arrangement
Structure Numbers are placed on every mast, using a specific numbering format.

<table>
<thead>
<tr>
<th>LINE NAME</th>
<th>DIRECTION/LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Armadale line</td>
<td>D = Down</td>
</tr>
<tr>
<td>F = Fremantle line</td>
<td>P = Platform</td>
</tr>
<tr>
<td>J = Joondalup line</td>
<td>S = Siding</td>
</tr>
<tr>
<td>M = Midland line</td>
<td>U = Up</td>
</tr>
<tr>
<td>R = Rockingham line</td>
<td>UD = Up/Down</td>
</tr>
<tr>
<td>T = Thornlie line</td>
<td></td>
</tr>
<tr>
<td>C = City to Claisebrook line</td>
<td></td>
</tr>
</tbody>
</table>

Marginal Mast

Central Mast

FIGURE 14.3: Typical Structure Numbering
15. REFERENCE

Rule 2019 Planned De-Energisation of Overhead Supply
Rule 2023 Unplanned De-Energisation of Overhead Supply
PTA 4010-100-107 Approved Vehicle Register
PTA 8510-000-010 Procedure for Planning for OLE Permit to Work, De-energisation and OLE Vicinity Form
PTA 8190-400-001 Standard Gauge Mainline Code of Practice Track & Civil Infrastructure
PTA 8190-400-002 Narrow Gauge Mainline Code of Practice Track & Civil Infrastructure
PTA 8110-400-029 Procedure for Applying for Access to the PTA Operating Railway Reserve
PTA 8190-800-002 Assessing Electrical Clearances for all Rail Vehicles Accessing the PTA Electrified Area
PTA 8110-800-038 Procedure for Isolation and Earthing for OLE
PTA 8110-800-047 Boundary Fences in the Electrified Area
ENA NENS 04-2006 National Guidelines for Safe Approach Distances to Electrical and Mechanical Apparatus

16. EFFECTIVE DATE

1 November 2018
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Advertising Overhead Supply De-Energisation ..................................................... 3
4. De-Energisation of Overhead Supply .................................................................... 3
   4.1. Affected Train Controller .............................................................................. 4
   4.2. Electric Control Officer and Train Controllers ............................................... 4
   4.3. Train Controllers ........................................................................................... 4
   4.4. Electric Control Officer ................................................................................. 4
5. Authorising Travel Between Live and De-Energised Sections .............................. 5
6. Restoring Overhead Supply .................................................................................. 5
7. Reference .............................................................................................................. 5
8. Effective Date ........................................................................................................ 5
1. PURPOSE

The purpose of this rule is to outline the process for planned De-Energisation and restoration of Overhead Supply in the Public Transport Authority (PTA) Network.

Removing Overhead Supply requires coordination between the Train Controller and Electric Control Officer (ECO).

**WARNING**

De-Engergisation of the Overhead Supply does not prevent Rail Traffic from operating within the De-Energised area.

2. GENERAL

Only Train Controllers may give Authority for the De-Energisation of Overhead Supply. Overhead Supply must be De-Energised only:
- if all prescribed approvals have been obtained; and
- in accordance with the requirements specified in Rule 2017 Working Around Electrical Infrastructure.

3. ADVERTISING OVERHEAD SUPPLY DE-ENERGISATION

Planned De-Energisation of the Overhead Supply must be Advertised by the Electrical Representative.

4. DE-ENERGISATION OF OVERHEAD SUPPLY

The ECO prepares a Blocking of Track Sections for Electric Traction Purposes (BF) form for De-Energisation of Overhead Supply, and issues the BF to the Train Controller.

If De-Energisation of Overhead Supply affects more than one Train Controller, the Train Controllers for the affected areas must confer and give clearance to De-Energise the Overhead Supply on the BF.

The ECO must obtain Authority from the affected Train Controllers before De-Energisation of the Overhead Supply.
4.1. AFFECTED TRAIN CONTROLLERS

The affected Train Controllers must make sure that the details for the De-Energisation of Overhead Supply are correct and:

- give Authority to the ECO; and
- make a Permanent Record about the De-Energisation of Overhead Supply.

4.2. ELECTRIC CONTROL OFFICER AND TRAIN CONTROLLERS

Before De-Energisation of the Overhead Supply, the ECO must inform the Train Controller of the affected Electrical Section. The Train Controller must check the Electrical Section on the Train Control system.

The ECO and the Train Controller must confer and make sure that details about the Authority to De-Energise the Overhead Supply correspond with the Overhead Sectioning Diagram.

The Train Controller must make sure that, in the Electrical Section to be De-Energised:

- there is no Rail Traffic requiring electric traction that might need to be moved during the period of De-Energisation; and
- the Pantographs of Rail Traffic have been lowered.

4.3. TRAIN CONTROLLERS

The Train Controller must make a Permanent Record of the De-Energisation of Overhead Supply before giving clearance.

The Train Controller must prevent Rail Traffic from entering the Electrical Section by:

- setting Signals at Stop;
- applying Blocking Facilities; and
- making sure that Protection has been applied to prevent entry by way of unsignalled Routes.

4.4. ELECTRIC CONTROL OFFICER

Make sure that the prescribed Authorities have been given by the affected Train Controller.

De-Energise the Overhead Supply.

WARNING

De-Energisation of the Overhead Supply may happen sometime after clearance.
5. AUTHORIZING TRAVEL BETWEEN LIVE AND DE-ENERGISED SECTIONS

The ECO must Authorise the temporary removal of Blocking Facilities for non-electric Rail Traffic to enter the De-Energised Section.

The Train Controller must not permit electric Rail Traffic to enter or leave a Section where the Overhead Supply has been De-Energised unless:

- their Pantographs have been lowered and air supply isolated; and
- they are hauled by non-electric Locomotives.

6. RESTORING OVERHEAD SUPPLY

The ECO must coordinate the restoration of the Overhead Supply.

Overhead Supply must be restored in accordance with the requirements specified in Rule 2017 Working Around Electrical Infrastructure.

The ECO must tell the affected Train Controllers when the work has been completed and Overhead Supply has been restored.

Affected Train Controllers must make a Permanent Record of the time when Overhead Supply was restored.

If Blocking Facilities are no longer needed the Train Controller must remove the Blocking Facilities.

7. REFERENCE

Rule 2017 Working Around Electrical Infrastructure

8. EFFECTIVE DATE

4 December 2017
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

2023
UNPLANNED DE-ENERGISATION OF OVERHEAD SUPPLY
# CONTENTS

1. Purpose ................................................................................................................. 3  
2. General.................................................................................................................. 3  
3. Rescue Operations............................................................................................... 3  
   3.1. Life-Threatening and Emergency Circumstances ........................................ 3  
   3.2. Electric Control Officer and Train Controllers ........................................... 3  
   3.3. Electric Control Officer .............................................................................. 4  
   3.4. Train Controllers....................................................................................... 4  
   3.5. When the Life-Threatening or Emergency Situation is Over ...................... 4  
   4.1. Electrical Representative ....................................................................... 5  
   4.2. Electric Control Officer and Train Controllers ........................................... 5  
   4.3. Electric Control Officer ........................................................................... 5  
   4.4. Train Controllers..................................................................................... 5  
5. Restoring Overhead Supply .................................................................................. 6  
   5.1. Tell Affected Train Controllers That Overhead Supply Has Been Restored  6  
      5.1.1. Electric Control Officer ..................................................................... 6  
      5.1.2. Train Controllers............................................................................... 6  
6. Keeping Records ................................................................................................... 6  
7. Reference.............................................................................................................. 7  
8. Effective Date ........................................................................................................ 7
1. PURPOSE

The purpose of this rule is to prescribe the protocols for the De-Energisation of Overhead Supply in life-threatening or Emergency situations or for urgent Infrastructure work, in the Public Transport Authority (PTA) Network.

2. GENERAL

De-Energisation of the Overhead Supply requires coordination between Train Controllers and the Electric Control Officer (ECO).

WARNING
Unless the Electrical Representative tells them otherwise, Workers near Electrical Equipment and Electrical Infrastructure must treat it as Live.

3. RESCUE OPERATIONS

In life-threatening or Emergency situations, rescue operations must not be attempted before the ECO or Electrical Representative says that it is safe to do so.

3.1. LIFE-THREATENING AND EMERGENCY CIRCUMSTANCES

In life-threatening situations, the ECO may De-Energise the Overhead Supply before telling the Train Controller.

In Emergency situations, the ECO and affected Train Controllers coordinate De-Energisation of the Overhead Supply.

Where the ECO is not in attendance the Train Controller may De-Energise the Overhead Supply by operating the Emergency key which will De-Energise the Overhead Supply.

3.2. ELECTRIC CONTROL OFFICER AND TRAIN CONTROLLER

WARNING
In life-threatening or Emergency situations, Overhead Supply must also be De-Energised from Adjacent Sections that could allow the affected Section to be electrified by the passage of a Train.

The ECO or Train Controller must obtain as much information about the life-threatening or Emergency situation from the caller as possible.
3.3. ELECTRIC CONTROL OFFICER

De-Energise the Overhead Supply from the affected Overhead Line Equipment (OLE).

As soon as possible, tell Train Controllers about the De-Energisation of the Overhead Supply.

If the Overhead Supply has been De-Energised for a rescue operation, request the Train Controller to apply Blocking Facilities and confirm with the Blocking of Track Section for Electrical Purposes form (BF).

As soon as practicable, tell the Train Controller about the Electrical Section from which Overhead Supply has been De-Energised.

Make a Permanent Record of details about:

- the De-Energisation of the Overhead Supply; and
- if issued, the BF form number.

3.4. TRAIN CONTROLLERS

Once the Overhead Supply has been De-Energised tell the Emergency Services that:

- the Overhead Supply has been De-Energised for rescue purposes only; and
- rescue personnel should not come within one metre of OLE unless advised by an Electrical Representative.

Tell Rail Traffic Crew in affected areas:

- about the Condition Affecting the Network (CAN);
- that Overhead Supply has been De-Energised;
- that people must be kept away from OLE; and
- Rail Traffic Crew must not come within one metre unless advised by an Electrical Representative.

Make a Permanent Record of:

- the CAN; and
- the De-Energisation of the Overhead Supply.

3.5. WHEN THE LIFE-THREATENING OR EMERGENCY SITUATION IS OVER

Once the life-threatening or Emergency situation is over and work is still required to be carried out, earthing must be applied and where required, the Overhead Supply must be De-Energised in accordance with Rule 2017 Working Around Electrical Infrastructure.
4. **DE-ENERGISATION OF OVERHEAD SUPPLY FOR URGENT ENGINEERING WORK**

If urgent engineering work on *Electrical Infrastructure* is needed to prevent OLE failure, *Overhead Supply* may be *De-Energised* without being *Advertised*.

### 4.1. ELECTRICAL REPRESENTATIVE

Ask the *ECO* to *De-Energise* the *Overhead Supply* for urgent engineering work.

### 4.2. ELECTRIC CONTROL OFFICER AND TRAIN CONTROLLER

Confer and agree about:
- which *Electrical Section* the *Overhead Supply* will be *De-Energised* from; and
- when the *Overhead Supply* can be *De-Energised*.

### 4.3. ELECTRIC CONTROL OFFICER

The *ECO* prepares a BF for *De-Energisation* of *Overhead Supply* and issues the BF to the *Train Controller*.

The *Train Controller* must give Authority to *De-Energise* the *Overhead Supply* on the BF.

When *De-Energisation* of the *Overhead Supply* is due, ask the *Train Controller* to give the Authority to *De-Energise* the *Overhead Supply*.

### 4.4. TRAIN CONTROLLERS

The *Train Controller* must get assurance from the *ECO* that the details of the BF for *De-Energisation* correspond with the overhead section from where the *Overhead Supply* will be *De-Energised*.

The *Train Controller* must make sure or get assurance that the *Sections* from where the *Overhead Supply* will be *De-Energised* are *Clear of Rail Traffic*.

The *Train Controller* must tell *Rail Traffic Crew* and affected *Workers* about the affected *Sections*.

The *Train Controller* must make sure that *Blocking Facilities* have been applied to *Signalled Routes* and *Protection* has been applied to unsignalled *Routes*.

The *Train Controller* must prevent all *Rail Traffic* from entering the *De-Energised Sections* by:
- setting *Signals* at Stop;
- applying *Blocking Facilities*; and
- making sure that *Protection* has been applied to prevent entry by way of unsignalled *Routes*. 

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2023 Unplanned De-Energisation of Overhead Supply Rev1.01
Date: 04 December 2017
Page 5 of 8
The **Train Controller** must give the **ECO Authority** to **De-Energise** the **Overhead Supply**.

Make a **Permanent Record** of the **Authority** and the **De-Energisation** of the **Overhead Supply**.

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### 5. RESTORING OVERHEAD SUPPLY

The **ECO** must coordinate the restoration of the **Overhead Supply**.

**Overhead Supply** must be restored in accordance with the requirements specified in **Rule 2017 Working Around Electrical Infrastructure**. The **ECO** must tell the **Train Controller** when **Overhead Supply** has been restored.

The **Train Controller** must make a **Permanent Record** of the time that the **Overhead Supply** was restored.

If **Blocking Facilities** are no longer needed the **Train Controller** must remove the **Blocking Facilities**.

#### 5.1. TELL AFFECTED TRAIN CONTROLLERS THAT OVERHEAD SUPPLY HAS BEEN RESTORED

The **Train Controller** may **Authorise** the **Overhead Supply** to be restored only after receiving assurance that rescue personnel and their equipment are **Clear**.

This assurance can only be given by the **Electrical Representative**.

The relevant **Train Controller** gives clearance to restore **Overhead Supply** if the supply was **De-Energised** due to a life threatening or **Emergency** situation.

##### 5.1.1. Electric Control Officer

After ensuring it is safe to do so, restore **Overhead Supply** and inform the relevant **Train Controller**.

##### 5.1.2. Train Controllers

Tell other affected **Train Controllers** that **Overhead Supply** has been restored.

If **Blocking Facilities** are not needed for **Work On Track**, remove:

- **Signal Protection** from **De-Eenergised OLE**; and
- **Protection** applied to unsignalled **Routes**.

---

### 6. KEEPING RECORDS

The **Train Controller** and the **ECO** must make a **Permanent Record** of the time when **Overhead Supply** is restored.
7. **REFERENCE**

Rule 2017 Working Around Electrical Infrastructure  
Rule 2019 Planned De-Energisation of Overhead Supply

8. **EFFECTIVE DATE**

4 December 2017
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Responsibilities ..................................................................................................... 3
   3.1. Vigilance....................................................................................................... 3
   3.2. Cross Checks ............................................................................................... 4
   3.3. Display of Authority ...................................................................................... 4
4. Rail Traffic Crew Changeover ............................................................................... 5
   4.1. Relieving Rail Traffic Crew ........................................................................... 5
   4.2. Rail Traffic Crew Being Relieved ................................................................ 5
5. Examination of Other Rail Traffic .......................................................................... 5
6. Reporting and Managing of Faults and Unsafe Conditions ...................................... 6
7. Overdue Occupancies ........................................................................................... 6
   7.1. Stopped Rail Traffic ...................................................................................... 6
   7.2. Inspecting Stopped Rail Traffic .................................................................... 6
   7.3. Disabled Rail Traffic ...................................................................................... 7
8. Confirming Rail Traffic is Complete ....................................................................... 7
9. Reference .............................................................................................................. 7
10. Effective Date ........................................................................................................ 7
1. **PURPOSE**

The purpose of this rule is to provide instructions for **Fulfilling** the responsibilities of *Rail Traffic Crew* in the Public Transport Authority (PTA) *Network*.

2. **GENERAL**

*Rail Traffic Crew* must be *Competent*:

- for the *Rail Traffic* they operate in the PTA *Network*;
- in the *Systems of Safeworking* relevant to their area of operation; and
- for the *Route* over which they *Travel*.

3. **RESPONSIBILITIES**

*Rail Traffic Crew* must:

- make sure their *Rail Traffic* can be operated safely before they enter, and during *Travel* in the PTA *Network*;
- tell the *Train Controller* if a defect is detected on their *Rail Traffic*;
- tell the *Train Controller* if an *Infrastructure* defect is detected;
- cooperate with *Competent Workers* in the performance of their duties;
- tell the *Train Controller* about breaches to PTA *Safeworking Rules and Procedures*; and
- promptly report delays to the *Train Controller*.

**NOTE**

The *Operator’s Representative* must tell the *Train Controller* about safety arrangements that are put in place in the event of a failure of their *Rail Traffic*.

3.1. **VIGILANCE**

*Rail Traffic Crew* must:

- observe the *Track* in the direction of *Travel*;
- observe other *Rail Traffic*;
- frequently observe to the rear to ensure that the *Rail Traffic* is following in a safe and proper manner;
- not engage in any activity that distracts their attention, or the attention of others;
- be prepared to Stop or reduce *Rail Traffic* speed if required;
• advise the Rail Traffic Crew of any Rail Traffic known to be following when it is necessary to Stop or reduce speed;
• not exceed speed limits;
• reduce Rail Traffic speed if it is considered that the conditions prevent safe operation at Normal Speed;
• Stop if braking equipment is not considered to be operating as expected;
• pay particular attention when:
  o Authorities are being received;
  o Travelling under a Proceed Restricted Authority (PRA);
  o reporting their position;
  o visibility is impaired for any reason; and
  o when approaching:
    ▪ a Block Section;
    ▪ a crossing or passing Location;
    ▪ Signals, indicators or signs;
    ▪ Track Workers; or
    ▪ Level Crossings.

3.2. CROSS CHECKS

Each Rail Traffic Crew member must be aware of and agree to the current limit of Authority.

The Rail Traffic Crew must confirm the meaning of:
• Signals;
• Point’s settings; and
• Temporary Speed Restriction (TSR) signs.

3.3. DISPLAY OF AUTHORITY

Where the Authority is carried on the Rail Traffic, it must be displayed in conspicuous view of the Rail Traffic Crew at the controls of the Rail Traffic.
4. **RAIL TRAFFIC CREW CHANGEOVER**

*Rail Traffic Crew* must tell a relieving *Rail Traffic Crew* about any conditions that could affect the operation of the *Rail Traffic*.

4.1. **RELIEVING RAIL TRAFFIC CREW**

The relieving *Rail Traffic Crew* must check the status of the *Authority* that is *In Effect* and, if a written *Authority*, make sure that it is:

- understood;
- correctly recorded; and
- clearly displayed.

4.2. **RAIL TRAFFIC CREW BEING RELIEVED**

The *Rail Traffic Crew* being relieved must not depart until they have made sure that the relieving *Rail Traffic Crew* understands:

- the status of the *Authority* in effect;
- the status of *Signals* and *Points*;
- the speed limits applicable for the *Rail Traffic*;
- the status of *Track* and *Track Speed Restrictions (TSRs)* in place; and
- any factors that could affect the safety of *Rail Traffic*.

5. **EXAMINATION OF OTHER RAIL TRAFFIC**

*Rail Traffic Crew* must check other *Rail Traffic* as effectively as the circumstances allow, for:

- loading irregularities;
- *Rail Traffic* defects;
- dragging equipment;
- the presence and operation of an *End-Of-Train Marker*; and
- any other irregularities.
6. REPORTING AND MANAGING OF FAULTS AND UNSAFE CONDITIONS

If a defect or unsafe condition is detected on other Rail Traffic, the Rail Traffic Crew must tell:
- the affected Rail Traffic Crew, and
- the Train Controller.

If a fault or failure requires attention by the affected Rail Traffic Crew, the affected Rail Traffic Crew must, if necessary, arrange for Protection from other Rail Traffic in accordance with Rule 4001 Protecting Rail Traffic.

7. OVERDUE OCCUPANCIES

7.1. STOPPED RAIL TRAFFIC

If a Rail Traffic stoppage is or will become extended, the Rail Traffic Crew must:
- tell the Train Controller the Location and the reason why the Rail Traffic is overdue;
- if necessary, secure the Rail Traffic; and
- if necessary, provide Protection for the Rail Traffic in accordance with Rule 4001 Protecting Rail Traffic.

7.2. INSPECTING STOPPED RAIL TRAFFIC

WARNING
Where there is a risk of being struck by Rail Traffic on Adjacent lines, the Rail Traffic Crew must arrange to implement safety measures to reduce the risk.

WARNING
Adjacent lines may be under the control of different Train Controllers or Access Providers.

If it is necessary to inspect their Rail Traffic, the Rail Traffic Crew must:
- make sure that they and the Rail Traffic are protected against Rail Traffic on Adjacent lines; and
- tell the Train Controller the result of the inspection.
7.3. DISABLED RAIL TRAFFIC

If the Rail Traffic Crew reports overdue Rail Traffic as Disabled, the Train Controller must act in accordance with Rule 4009 Removing Disabled Rail Traffic.

8. CONFIRMING RAIL TRAFFIC IS COMPLETE

When it is necessary to determine that Rail Traffic is Complete, the following methods must be used by Rail Traffic Crew or other Competent Workers:

- a visual inspection has verified the presence of the End-Of-Train Marker;
- information is provided by an End-Of-Train Monitor;
- no unaccounted brake reduction has occurred and no other sign on the brake gauge is evident which indicates the Train is not Complete; and
- it is determined that the correct Vehicle is at the rear of the Rail Traffic.

9. REFERENCE

Rule 4001 Protecting Rail Traffic
Rule 4009 Removing Disabled Rail Traffic

10. EFFECTIVE DATE

1 November 2015
2029
RESPONSIBILITIES
OF TRAIN CONTROLLERS
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Responsibilities ..................................................................................................... 3
   3.1. Area of Control ............................................................................................. 4
4. Train Controller Handover ..................................................................................... 4
5. Interface Between Control Boundaries ................................................................. 4
6. Overdue Occupation .............................................................................................. 4
7. Obstruction of Lines Other Than Disabled Rail Traffic .......................................... 5
8. Keeping Records ................................................................................................... 5
9. Reference .............................................................................................................. 5
10. Effective Date ...................................................................................................... 5
1. **PURPOSE**

The purpose of this rule is to provide instructions for *Fulfilling* the responsibilities of a *Train Controller* in the Public Transport Authority (PTA) *Network*.

2. **GENERAL**

*Train Controllers* safely manage the transit of *Rail Traffic* through the PTA *Network*. *Train Controllers* must plan, set priorities for, and manage:

- *Rail Traffic* services;
- *Work on Track Authorities* and methods;
- *Proceed Authorities*;
- Planned and Unplanned *De-Energisations*;
- liaison with the *Electric Control Officer*, *Operator’s Representatives*, *Maintenance Representatives* and *Emergency Services* during incident management; and
- the safe restoration of *Rail Traffic* services.

3. **RESPONSIBILITIES**

*Train Controllers* must:

- make sure that *Signalling* equipment is operated safely;
- respond to equipment failures and *Warning* alarms promptly;
  - this includes reporting all equipment failures and faults to the relevant *Infrastructure* representative.
- make sure accurate time is maintained and used;
- maintain accurate and timely information on the *Train Control Diagram* on actual and anticipated *Rail Traffic* movements, *Work on Track Authorities* and methods;
- not engage in any activity that distracts their attention from their *Safeworking* duties, or that may distract others in *Train Control*;
- *Authorise* and issue *Proceed Authorities* and *Work on Track Authorities*;
- as necessary, introduce methods of *Special Working*;
- as necessary, provide *Rail Traffic* details to affected *Train Controllers* and other *Workers*; and
- promptly report incidents and breaches of *PTA Safeworking Rules and Procedures* to their supervisor and affected *Operator’s Representatives*.

Where *Authorities* are being issued manually, the *Train Controller* must cross-check with the *Train Control Diagram* and other *Authorities* issued.
Train Controllers must complete the transmission, verification and recording of each Authority, Work on Track Authority and method before commencing any other activity.

3.1. AREA OF CONTROL

Control boundaries define the geographic areas of responsibility for each Train Controller.
Train Controllers may only Authorise or manage Authorities or activities within their area of control.

4. TRAIN CONTROLLER HANDOVER

A Train Controller must tell the relieving Train Controller about any conditions that could affect the operation of the PTA Network on Form 4030-409-003 Train Control Handover Sheet.

5. INTERFACE BETWEEN CONTROL BOUNDARIES

Train Controllers must share up-to-date information concerning:
- anticipated Rail Traffic arrival and departure times;
- the planning of Rail Traffic paths;
- Rail Traffic identification details; and
- crossing and passing requirements as appropriate.

Before Authorising the Rail Traffic to Proceed to a Location that is managed by another Train Controller, permission from that Train Controller must be obtained.

6. OVERDUE OCCUPATION

Where the agreed or expected reporting, clearance or Section running times are exceeded by an unreasonable amount, the Train Controller must:
- contact the Competent Worker in charge of the Work on Track activities; or
- contact the Rail Traffic Crew.

If this contact cannot be made, the Train Controller must advise the Track Workers’ or Rail Traffic Crew’s organisation, and alert them to the circumstances.

The requirements of Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN) must be observed if the Train Controller cannot communicate with the Rail Traffic Crew of an overdue Rail Traffic movement.

If the Track Workers or Rail Traffic Crew’s safety cannot be established, the Train Controller must initiate Emergency procedures.
7. OBSTRUCTION OF LINES OTHER THAN DISABLED RAIL TRAFFIC

If an obstruction other than Disabled Rail Traffic, such as a wash away, landslides etc., is reported, the Train Controller responsible for the affected Section of line must act in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN), and:

- instruct Rail Traffic Crew in or approaching the affected Block to stop their Rail Traffic immediately; and
- apply Blocking Facilities in accordance with Rule 6003 Blocking Facilities to prevent entry of further Rail Traffic into affected or potentially affected Sections of Track.

8. KEEPING RECORDS

Train Controllers must keep a Permanent Record of relevant conditions and movements on the PTA Network.

9. REFERENCE

Form 4030-409-003 Train Control Handover Sheet
Rule 1001 Scope of the PTA Safeworking Rules and Procedures
Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN)
Rule 6003 Blocking Facilities

10. EFFECTIVE DATE

1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFeworking Rules and Procedures

2031
RESPONSIBILITIES OF TRACK WORKERS

2031 Responsibilities of Track Workers Rev1.01
Date: 22 July 2016
Page 1 of 6
1. Purpose ................................................................................................................................. 3
2. General................................................................................................................................ 3
3. Responsibilities of Track Workers .................................................................................. 3
4. Responsibilities of Protection officers ............................................................................. 4
5. Interface between Work on Track Authorities................................................................. 4
  5.1. Information Sharing ..................................................................................................... 4
6. Passing Rail Traffic ............................................................................................................ 5
7. Reference............................................................................................................................. 5
8. Effective Date .................................................................................................................... 5
1. PURPOSE

The purpose of this rule is to provide instructions for executing and Fulfilling the responsibilities of a Track Worker in the Public Transport Authority (PTA) Network.

2. GENERAL

Track Workers engaged in works in the PTA Network must be under the supervision of a Protection Officer (PO) who has access to:

- any relevant notices of working arrangements for that Location; and
- the PTA Safeworking Rules and Procedures.

NOTE

Track Workers must expect the movement of Rail Traffic at any time, on any Track and in any direction, in addition to Fulfilling the requirements set out in Rule 1003 General Responsibilities for Safety.

3. RESPONSIBILITIES OF TRACK WORKERS

Track Workers responsibilities may include:

- operating machinery;
- performing Track maintenance or construction work under supervision;
- supervising maintenance or construction Work Groups; and
- coordinating maintenance or construction Work Groups and associated Rail Traffic, in liaison with the Train Controller.

Track Workers must report to the Train Controller:

- any faults or defects that could affect the operation of the PTA Network; and
4. RESPONSIBILITIES OF PROTECTION OFFICERS

The responsibilities of a PO include:

- determining safety measures required for Occupancy of the Track;
- managing Worksite Protection;
- obtaining Work on Track Authorities; and
- advising the Train Controller of any delay in returning the Track to service.

**NOTE**

A PO’s primary duty and responsibility is to keep the Worksite and Workers safe. POs’ must be satisfied that other work will not interfere with this duty.

5. INTERFACE BETWEEN WORK ON TRACK AUTHORITIES

An interface between Work on Track Authorities occurs where two or more works covered under a Work on Track Authority are physically Adjacent.

5.1. INFORMATION SHARING

POs who’s Work on Track Authorities interface with another Work on Track Authority, must frequently share information concerning:

- anticipated movement of Rail Traffic; and
- Rail Traffic identification details.

Before a PO Authorises the Rail Traffic to Proceed to a Location managed by another PO, permission must be obtained from that PO.
6. **PASSING RAIL TRAFFIC**

**WARNING**

*Track Workers* must:

- be in a *Safe Place* for the passage of *Rail Traffic*:
- make no movement that may be mistaken by *Rail Traffic Crew* as a movement into the *Danger Zone*, and
- unless responsible for displaying *Hands signals* to *Rail Traffic Crew*, make no movements and gestures that may be mistaken for *Hands signals*.

All *Track Workers* have a responsibility to observe passing *Rail Traffic* for potential defects which may include:

- signs of alarm from passengers;
- loading irregularities;
- braking defects;
- dragging equipment;
- fire on the train; or
- the absence or non operation of an *End-Of-Train Marker*.

The *Rail Traffic Crew* and the *Train Controller* must be advised of any irregularity on the affected *Rail Traffic*.

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7. **REFERENCE**

Rule 1003 General Responsibilities for Safety

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8. **EFFECTIVE DATE**

22 July 2016
3000 PLANNING WORK IN THE RAIL CORRIDOR
CONTENTS

1. Purpose .................................................................................................................. 3
2. General .................................................................................................................. 3
   2.1. Accessing the Rail Corridor ........................................................................... 3
3. Protection Officer .................................................................................................. 3
4. Assessing Safety ................................................................................................... 4
   4.1. Use of Plant Near or Work Above the Danger Zone .................................... 5
5. Multiple Access Providers .................................................................................... 5
6. Level Crossings ..................................................................................................... 5
7. Methods for Working Safely on Track ................................................................ 6
   7.1. Running Lines in the Network Outside Depots .......................................... 6
   7.2. In Depots ...................................................................................................... 6
8. Local Possession Authority .................................................................................. 7
9. Track Occupancy Authority .................................................................................. 7
10. Absolute Signal Blocking .................................................................................... 8
11. Lookout Working .................................................................................................. 8
12. Walking in the Danger Zone ................................................................................. 9
13. Reference .............................................................................................................. 9
14. Effective Date ....................................................................................................... 9
1. PURPOSE

The purpose of this rule is to provide instructions to ensure that appropriate planning is carried out for work within the Rail Corridor in the Public Transport Authority (PTA) Network.

2. GENERAL

Work planned for the Rail Corridor must be assessed for safety and its potential to intrude into 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 method is 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.

A Worker in the Rail Corridor must wear approved Personal Protection Equipment (PPE). The minimum PPE required is high visibility clothing and safety footwear.

Effective Communication with Train Controllers, Possession Protection Officers (PPOs) and Protection Officers (POs) must be maintained.

2.1. ACCESSING THE RAIL CORRIDOR

Before entering the Rail Corridor, the Protection Officer (PO) or Individual Access holder (IA) must log into the PTA’s Electronic Book On System. When the work is completed, the PO or Individual Access holder (IA) must log off in the Electronic Book On System.

If for any reason the Electronic Book On System fails to record the details then the Infrastructure Control Officer (ICO) must be contacted.

3. PROTECTION OFFICER

A Worksite within the Danger Zone or work that has potential to intrude into the Danger Zone must have a PO for the duration of the work.

The PO is responsible for managing the rail safety component of Worksite Protection.

A PO’s primary duty and responsibility is to keep the Worksite and Workers safe. POs must be satisfied that other work will not interfere with this duty.
The PO must:

- make a Safety Assessment;
- brief Workers about the rail safety component of Worksite Protection;
- make sure that the rail safety component of the work is done safely;
- communicate with the Train Controller about the work and Protection arrangements; and
- keep Permanent Records about the Work on Track method and Protection arrangements.

4. ASSESSING SAFETY

When making a Safety Assessment, the PO must consider, amongst other factors, if:

- work will affect Track under the control of different Train Controllers 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 will allow 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 lines;
- 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 public access to the Rail Corridor;
- there is a risk to Workers from road traffic;
- the work will intrude on Level Crossings;
- the line is Electrified Area;
- the line is Track Circuited Territory;
- the formation of the line 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; and
- the potential for noise within and external to the Worksite may impact on the Worksite Protection.

The PO must reassess safety measures if conditions such as visibility or work Locations change.
4.1. **USE OF PLANT NEAR OR WORK ABOVE THE DANGER ZONE**

Unless special precautions for Protection of the Running Line have been approved by the Manager Rail Infrastructure Access, a Work on Track Authority must be used where:

- plant is to be used and any part of that plant may encroach into the Danger Zone; or
- work is to be carried out above the Danger Zone.

**NOTE**

Special precautions may include, but not be limited to, chain link fencing, scaffolding and roofing above the Running Line, and restrictive safety chains on plant. These are in addition to the requirements set out in Rule 2017 Working Around Electrical Infrastructure.

5. **MULTIPLE ACCESS PROVIDERS**

If the Planned Work will affect Track under the control of more than one Access Provider, the PO must get the relevant Train Controllers Authority.

**NOTE**

POs must be aware of the Protection arrangements required for Adjoining Networks.
Where necessary, Competent Workers must be qualified in the Adjoining Networks rules and procedures.

6. **LEVEL CROSSINGS**

If Work on Track at Level Crossings will intrude on a Level Crossing or affect their operation, the PO must arrange to ensure the safety of:

- Workers; and
- road, pedestrian and Rail Traffic.
7. METHODS FOR WORKING SAFELY ON TRACK

Appropriate methods must be selected for arranging and managing work within the Rail Corridor.

The PO must tell affected Workers about the Protection arrangements.

7.1. RUNNING LINES IN THE NETWORK OUTSIDE DEPOTS

Work in the Danger Zone may be Protected by using one or more of the following:

- Rule 3001 Local Possession Authority;
- Rule 3005 Track Occupancy Authority;
- Rule 3011 Absolute Signal Blocking; or
- Rule 3013 Lookout Working.

The preferred methods of Work on Track are:

- Local Possession Authorities (LPA); and
- Track Occupancy Authorities (TOA).

NOTE

Each Work on Track method has mandatory minimum safety measures. However, extra safety measures may be applied.

7.2. IN DEPOTS

If Rail Traffic needs to be excluded from a work area within a depot, the PO must get permission from the supervisor in charge of the depot.

The PO must make arrangements with the supervisor in charge of the depot to prevent Unauthorised entry of Rail Traffic into the work area.

The supervisor in charge of the depot must ensure Unauthorised entry of Rail Traffic into the work area is prevented.

NOTE

Follow the principles of the PTA Safeworking Rules and Procedures and apply Protection, closing roads by means of:

- clipping Points;
- stop signs; or
- Track Closed Warning Devices.
8. LOCAL POSSESSION AUTHORITY

An LPA is used to close a defined portion of Track for a specified period.

An LPA is issued to the PPO and gives Exclusive Occupancy for the defined portion of Track.

At all times, there must be a nominated PPO for the LPA.

Work within the portion of Track included in the LPA limits must only be done with the PPO’s approval.

A number of separate Work Groups, associated Rail Traffic and equipment may occupy the portion of Track defined by the LPA.

A PPO is responsible for coordinating the rail safety component of Worksite Protection.

The Track may be broken or Obstructed.

Unless Authorised for an Emergency, the intention to take an LPA must be Advertised.

9. TRACK OCCUPANCY AUTHORITY

A TOA is used to close a defined portion of Track for a specified period.

A TOA is issued to the PO and gives Exclusive Occupancy.

A single Worksite, including equipment and associated Rail Traffic may occupy the portion of Track defined by the TOA.

The Track may be broken or Obstructed.
10. ABSOLUTE SIGNAL BLOCKING

Absolute Signal Blocking (ASB) is a method of working in the Danger Zone by maintaining Controlled Absolute Signals at Stop to exclude Rail Traffic from a Section of Track.

The ASB method must not be used for work that breaks the Track or affects Infrastructure integrity.

ASB is issued to a PO and gives Exclusive Occupancy for the agreed period of time.

The ASB method:
- must not be used where a Work on Track Authority is in place; and
- must be applied to Controlled Absolute Signals only.

ASB may be used:
- for work not requiring tools;
- for work using equipment which can be removed from the Track by Workers without mechanical assistance;
- at Active Control Level Crossings, or
- to allow Vehicles to directly cross the Track.

If ASB is used one Worker may work alone. In this case, that Worker is also the PO.

11. LOOKOUT WORKING

Lookout Working is used to give Warning of approaching Rail Traffic to Workers in or near the Danger Zone.

The Lookout Working method must not be used for work on Overhead Line Equipment (OLE), or work that breaks the Track or affects Infrastructure integrity.

Lookout Working may be used for work such as:
- work requiring the use of tools which can be easily and immediately removed from the Track by one Worker without mechanical assistance;
- inspections in the Danger Zone; or
- work conducted in the Rail Corridor, but outside of the Danger Zone that may intrude into the Danger Zone.

Work in the Danger Zone using Lookout Working must only be done only where visibility allows.

Workers must be able to remove themselves, tools and materials to a Safe Place immediately the Warning of approaching Rail Traffic is received.
12. WALKING IN THE DANGEROUS 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.

Where Workers must walk in the Danger Zone:
- an easily-reached Safe Place must be available; and
- visibility conditions must allow enough Sighting Distance for Workers to reach a Safe Place before the arrival of Rail Traffic.

13. REFERENCE

Rule 2001 Walking in the Danger Zone
Rule 2017 Working Around Electrical Infrastructure
Rule 3001 Local Possession Authority
Rule 3005 Track Occupancy Authority
Rule 3011 Absolute Signal Blocking
Rule 3013 Lookout Working

14. EFFECTIVE DATE

1 November 2018
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## CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Authorisation ......................................................................................................... 4
4. Possession Protection Officer and Protection Officer ............................................ 5
   4.1. Possession Protection Officer ................................................................. 5
   4.2. Change of Possession Protection Officer .............................................. 5
   4.3. Protection Officer ..................................................................................... 6
   4.4. Changing Protection Officer ..................................................................... 6
5. Obtaining an Local Possession Authority .............................................................. 7
6. Protection .............................................................................................................. 8
   6.1. In-Field Protection .................................................................................... 8
   6.2. Centralised Traffic Control ...................................................................... 9
   6.3. Protection for Rail Traffic crossing the Local Possession Authority .......... 9
   6.4. Adjacent Line .......................................................................................... 10
   6.5. Protecting Multiple Worksites ............................................................... 10
   6.5.1. Compiling and Issuing a Worksite Permit ...................................... 13
   6.5.2. Maintaining the Worksite Permit Master ...................................... 13
   6.5.3. Extending the Worksite Permit Time ............................................. 14
   6.5.4. Filling a Worksite Permit .............................................................. 14
7. Rail Traffic ........................................................................................................... 14
   7.1. Rail Traffic Entering or Travelling Within the Local Possession Authority Limits ................................................................. 14
   7.2. Fixed Signals ............................................................................................ 15
   7.3. Rail Traffic Departing the Local Possession Authority .............................. 15
8. Communications with Train Control .................................................................... 15
9. Filling the Local Possession Authority ................................................................. 15
   9.1. Work to Continue Under Another Work on Track Authority ................. 16
10. Keeping Records ................................................................................................. 16
11. Reference ............................................................................................................ 16
12. Effective Date .................................................................................................... 16
1. PURPOSE

The purpose of this rule is to provide details on the protocols for issuing and using Local Possession Authorities (LPAs) in the Public Transport Authority (PTA) Network. These Authorities are used to close a defined portion of Track for a specified period. In addition, this rule details how Protection is carried out when multiple Worksites occupy separate portions of the LPA.

2. GENERAL

Only Train Controllers may Authorise an LPA for Track under their control.

An LPA gives Exclusive Occupancy for the defined portion of Track.

At all times, there must be a nominated Possession Protection Officer (PPO) for the LPA.

An LPA is Issued exclusively to the PPO.

A number of separate Work Groups and their associated Rail Traffic and equipment may occupy the portion of Track defined by an LPA. Each Worksite must have a Protection Officer (PO).

A PPO is responsible for coordinating the rail safety component of Worksite Protection. PO must comply with the PPO’s instructions.

Work within the portion of Track included in the LPA limits must only be done with the agreement of the PPO.

Unless Authorised for an Emergency, the intention to take an LPA must be Advertised.

NOTE

Additional Work Group/s are permitted in a single Worksite and are managed by the Protection Officer responsible for the Worksite. See Procedure 9018 Additional Work Groups Accessing Worksite for details.
3. AUTHORISATION

Before Authorising the LPA, the Train Controller must make sure that:

- another Work on Track Authority is not in use within the proposed limits;
- approaching Rail Traffic can be Restrained at both ends of the Section that includes the proposed limits;
- Rail Traffic that is Stabled and not associated with the LPA, but still being within the limits of the LPA, must not be Authorised to move;
- Rail Traffic associated with the LPA, within the limits has been identified and is being managed as agreed by the PPO and the Train Controller;
- the PPO knows about any existing obstructions;
- Blocking Facilities have been applied to prevent the Unauthorised entry of Rail Traffic into the proposed limits; and
- in single line territory, the Half Pilot Keys have been removed from both ends of the affected Section.

The Train Controller must confirm with the PPO the following:

- name and contact details of the PPO;
- type of work;
- intended start and finish times; and
- location, using one or more of the following identifiers:
  - a kilometre sign and Section;
  - station name;
  - Overhead Line Equipment (OLE) structure number;
  - a Points number;
  - a Signal number;
  - an observance of Points or Signal Aspect change;
  - permanent structures, such as a bridge, roadway or overpass, used only in conjunction with one of the above identifiers; or
  - another identifier.

Where an existing Work On Track is in place, the Train Controller may Issue the LPA only if the existing Work On Track is Fulfilled or ended.
4. **POSSESSION PROTECTION OFFICER AND PROTECTION OFFICER**

4.1. **POSSESSION PROTECTION OFFICER**

The PPO must:

- be responsible for the Protection of Workers from Rail Traffic;
- make sure that the limits of the LPA are protected against the entry and exit of Unauthorised Rail Traffic;
- in single line territory, arrange for the Half Pilot Keys to be removed from both ends of the affected Section;
- make sure that each Worksite under the LPA has a PO while work is being performed;
- establish Effective Communication with POs;
- make sure POs keep the Tracks between Worksites and protecting Locations Clear of obstructions;
- coordinate the Protection of all Worksites within the limits of the LPA; and
- make sure that work in the Danger Zone does not begin before the required safety measures are in place.

4.2. **CHANGE OF POSSESSION PROTECTION OFFICER**

An outgoing PPO must advise an incoming PPO about the Worksite Protection arrangements.

The incoming PPO must:

- tell affected Train Controllers about the changed contact arrangements; and
- make a Permanent Record of the handover of the LPA on the Worksite Permit Master.
4.3. PROTECTION OFFICER

There must be a PO present at the Worksite for the period of the work. A PO must be satisfied that other work will not interfere with Protection duties. A PO must:

- make sure that work in the Danger Zone does not begin before the required safety measures are in place;
- be responsible for the Protection of Workers from Rail Traffic;
- make sure the Tracks between Worksites and protecting Locations are kept clear of obstructions;
- make sure that Worksites are protected against the Unauthorised entry and exit of Rail Traffic;
- must effectively communicate with the PPO;
- tell Workers about the Locations of Safe Places before work begins; and
- tell Workers if the Protection arrangements change.

4.4. CHANGING PROTECTION OFFICER

The outgoing PO must tell the incoming PO about the current Worksite Protection arrangements.

Before taking charge of the Worksite, the incoming PO must:

- confirm the current Worksite Protection arrangements;
- make a Permanent Record of the time of the Worksite handover; and
- confirm that the PPO has noted the changed contact arrangements.

The PPO must record the incoming POs name and contact details on the Worksite Permit Master.
5. Obtaining an Local Possession Authority

The Train Controller and the PPO must confirm and record on the Work on Track Authority:

- the Works Program Number, advertising the Authority;
- the LPA limits;
- that Blocking Facilities have been applied or, where approved by the Train Controller, the Crank Handle has been removed to prevent entry of Rail Traffic into the portion of Track within the proposed limits;
- the Points have been Secured;
- the duration of the LPA;
- the PPO's name and contact details;
- the issuing Train Controller's name;
- the time of Issue; and
- the date of Issue.

Where a Departure Signal on a single line is the protecting Signal, the PPO must arrange for the removal and securing of the Half Pilot Key for that Signal.

When the LPA is Issued the PPO must put the required Protection in place and commence work.

The Train Controller must make sure that other affected Train Controllers are aware of the Protection.
6. PROTECTION

**WARNING**
Work must not start in the *Danger Zone* until the required *Protection* is in place.

The PPO must arrange for:
- *Controlled Absolute Signals* to be set at Stop with *Blocking Facilities* applied;
- where the *Signal* has more than one *Route* available apply *Blocking Facilities* to prevent *Unauthorised* entry of *Rail Traffic* from entering the LPA limits; and/or
- the *Crank Handle* is to be removed to set *Controlled Absolute Signals* at Stop; and
- *Points* secured to prevent *Unauthorised* entry of *Rail Traffic* from entering the portion of track within the LPA limits.

The *Train Controller* must apply *Blocking Facilities* to prevent *Unauthorised* entry of *Rail Traffic* in to the LPA. Where required, the PPO must place *In-Field Protection* at all points of entry to the LPA.

6.1. IN-FIELD PROTECTION

*In-Field Protection is a Rail Clamped Stop Sign* and Rail Clamped Worksite Limit Sign:
- *In-Field Protection* is not required between the *Worksites* and the end of a *Terminal Line* if the *Train Controller* tells the PPO that there are no planned *Rail Traffic* movements from that direction; and
- where *Rail Traffic* that is *Stabled* and not associated with the LPA is within the limits of the LPA, the PPO must place *In-Field Protection* at all points of entry relevant to the LPA.

Where the *In-field protection* is a *Rail Clamped Stop Sign* the *Protection* can be placed at:
- that *Protecting Signal*;
- 200m from the outermost *Worksites*; or
- the *Station Limits* sign.

Where a *Departure Signal* is the *Protecting Signal*, the PPO must also take possession of the *Half Pilot Key*. 
6.2. CENTRALISED TRAFFIC CONTROL

Protecting Signals must be placed to Stop with Blocking Facilities applied and In-Field Protection placed.

The distance between the Protecting Signal or signs designating the limits of the LPA, and a Fixed Worksite, must not be less than 200m unless Points can be Secured to prevent access to the portion of Track within the LPA limits.

6.3. PROTECTION FOR RAIL TRAFFIC CROSSING THE LOCAL POSSESSION AUTHORITY

The PPO must make sure that In-Field Protection is placed on the:

- closed line 200m Clear of the crossover or turnout; and
- converging line that allows entry to the LPA area, at the Signal protecting entry into the closed line.

FIGURE 6.1: Example of In-Field Protection arrangements if Rail Traffic is Authorised to cross the LPA area.

If Rail Traffic crossing is Authorised, the Train Controller must get the PPO's permission for the move.

Where the PPO Authorises the movement of Rail Traffic across the LPA, the PPO must:

- arrange the removal of Protection at the entry point of the Route; and
- when Rail Traffic has Cleared the entry point make sure Protection is replaced.
6.4. ADJACENT LINE

If the Safety Assessment indicates that Workers need to be protected from Rail Traffic on Adjacent lines, the PO must arrange for Adjacent lines to be protected in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

6.5. PROTECTING MULTIPLE WORKSITES

The PPO must:

- make sure the PO protects their Worksites correctly; and
- tell the POs if changes are required to Worksite Protection and make sure the changes are carried out.

In-Field Protection for the Protection of Worksites within the LPA is a Rail Clamped Worksite Limit Sign.

The PO must:

- make sure that In-Field Protection is placed on each side of all Worksites, as shown in the following examples:

![Diagram of in-field protection for multiple worksites](image)

FIGURE 6.2: Example of Protection arrangements for individual Worksites more than 400m apart.
FIGURE 6.3: Example of Protection arrangements for multiple Worksites more than 200m but less than 400m apart. Where both mains are affected by the works, they must be protected appropriately.
FIGURE 6.4: Example of protection arrangements for combined multiple Worksites less than 200m apart. Where both mains are affected by the works, they must be protected appropriately.
6.5.1. Compiling and Issuing a Worksite Permit

Before work starts on the second and subsequent Worksites, those POs must have a Worksite Permit for the work they will supervise.

The PPO must:

- fill out a Worksite Permit;
- record the details of the Worksite including:
  - the Worksite limits;
  - the intended start and finish times for the work;
  - if Rail Traffic movements are associated with the Worksite;
  - the type and Location of Protection; and
  - the PO’s name and contact details;
- make sure the PO has signed the Worksite Permit; and
- record the Worksite Permit details in the Worksite Permit Master.

6.5.2. Maintaining the Worksite Permit Master

If the LPA involves more than one Worksite, the PPO uses the Worksite Permit Master to:

- maintain a record of Worksite Permits Issued; and
- record Worksite handovers between POs.

The PPO must fill out a Worksite Permit Master that includes details about the:

- works program Advertising the Authority;
- intended start and finish times of the LPA;
- LPA limits; and
- number of Worksites included in the LPA.

For each Worksite, the PPO must record:

- the PO’s name and contact details;
- if Rail Traffic movements are associated with the Worksite;
- the intended start and finish times for the work; and
- the time and date when the Worksite Permit is Issued.

If the PO changes, the PPO must record the:

- time of handover; and
- incoming PO’s name and contact details.
6.5.3. Extending the Worksire Permit Time

If the work will not be completed within the specified time the PO must get approval from the PPO for an extension of time.

If the PPO agrees to an extension, the PPO must record the:

- new Worksire end time; and
- time the extension was agreed.

6.5.4. Fulfilling a Worksire Permit

When the work has been completed the PO must make sure:

- that Rail Traffic and equipment is Clear of the Danger Zone;
- that the Work Group has Cleared the Worksire;
- that In-Field Protection and Point Clips have been removed;
- the PPO is advised about operating restrictions that have been placed or removed; and
- the Worksire Permit is Fulfilled.

The PPO must:

- use the Worksire Permit Master to record that the Worksire Permit has been Fulfilled; and
- ensure all Worksire Permits are Fulfilled before Fulfilling the LPA.

7. RAIL TRAFFIC

Only Rail Traffic associated with the LPA may enter the limits of the LPA.

Other Rail Traffic may cross the LPA to enter or exit a Running Line, Siding or Level Crossing, but only with the PPO’s agreement.

Before entering the LPA, Rail Traffic Crew must verify with the PPO or delegate that the LPA is In Effect.

7.1. RAIL TRAFFIC ENTERING OR TRAVELLING WITHIN THE LOCAL POSSESSION AUTHORITY LIMITS

The PPO or delegate must manage all Rail Traffic movement within the LPA.

The PPO must make sure that Rail Traffic associated with the LPA does not exceed the limits of the LPA.

Rail Traffic that is associated with the LPA, entering and travelling within the LPA limits must:

- be Piloted; or
- receive written or verbal instructions from the PPO.
Where a Pilot is used, the PPO or a delegate must act as the Pilot.

7.2. FIXED SIGNALS

Fixed Signals within the limits of the LPA must, where possible, be placed to Proceed for Rail Traffic movement.

Where Fixed Signals cannot be placed to Proceed for Rail Traffic movement, they must be passed under the direction of the Pilot or PPO.

7.3. RAIL TRAFFIC DEPARTING THE LOCAL POSSESSION AUTHORITY

Rail Traffic may depart from the limits of an LPA only on the Authority of the Train Controller.

8. COMMUNICATIONS WITH TRAIN CONTROL

The PPO must be the only point of contact between Train Control and Work Groups for matters of Worksite Protection.

The PPO must tell affected Train Controllers:

- the Protection arrangements on Adjacent lines; and
- about work progress.

The PPO must if necessary, seek an extension of time.

9. FULFILLING THE LOCAL POSSESSION AUTHORITY

Before Filling the LPA the PPO must make sure and tell the Train Controller that:

- associated Rail Traffic, Workers and all equipment are Clear of the Danger Zone;
- all Work Groups have cleared the Worksites;
- In-Field Protection has been removed;
- if necessary, Signals have been restored to normal use; and
- the portion of Track included in the LPA is available for use.

The PPO and the Train Controller must Fulfil the LPA.

The Train Controller must confirm with the PPO that:

- Blocking Facilities can be removed; and
- in single line territory, the Half Pilot Keys have been replaced.
NOTE
The Train Controller must test the Departure Signals after Half Pilot Keys have been replaced before the PPO leaves the site.

The Train Controller must advise other affected Train Controllers of the LPA being Fulfilled.

The PPO must tell the Train Controller about any operating restrictions that have been placed or removed.

9.1. WORK TO CONTINUE UNDER ANOTHER WORK ON TRACK AUTHORITY

Where arrangements have been made to continue work under another Work on Track Authority, the PO must ensure that the Protection applied for the LPA is not removed until the new Work on Track Authority is Issued and the required Protection for that new Authority is in place.

The Train Controller must ensure that the Track within the limits of the proposed Work on Track Authority:
- is Clear of Rail Traffic; or
- is only occupied by associated Rail Traffic permitted under that Authority.

10. KEEPING RECORDS

Train Controllers and the PPO must keep Permanent Records about the details of the LPA, including Protection arrangements and changes to the Worksite Protection.

11. REFERENCE

Rule 6003 Blocking Facilities
Procedure 9000 Clipping Points
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines
Procedure 9018 Additional Work Groups Accessing Worksite

12. EFFECTIVE DATE

1 November 2018
CONTENTS

1. Purpose .................................................................................................................... 3
2. General .................................................................................................................... 3
3. Authorisation .......................................................................................................... 3
4. Protection Officer .................................................................................................. 4
   4.1. Protection Officer ............................................................................................ 4
   4.2. Change of Protection Officer .......................................................................... 4
5. Obtaining a Track Occupancy Authority ................................................................. 5
6. Protection ................................................................................................................ 5
   6.1. In-Field Protection .......................................................................................... 6
   6.2. Centralised Traffic Control ............................................................................. 6
   6.3. WorkSite Within 200m of TOA Limits and Protecting Signal ......................... 8
   6.4. Adjacent Line .................................................................................................. 9
7. Rail Traffic ............................................................................................................. 9
   7.1. Rail Traffic Entering or Travelling Within the Track Occupancy Authority Limits ............................................................................................................. 9
   7.2. Fixed Signals ................................................................................................... 9
   7.3. Rail Traffic Departing the Track Occupancy Authority ................................... 9
   7.4. Communications with Train Control ................................................................ 10
8. Fulfilling the Track Occupancy Authority .............................................................. 10
9. Keeping Records .................................................................................................. 10
10. Reference ............................................................................................................. 11
11. Effective Date ....................................................................................................... 11
1. PURPOSE

The purpose of this rule is to outline the application of Track Occupancy Authorities (TOAs) in the Public Transport Authority (PTA) Network that are used to close a defined portion of Track for a specified period.

2. GENERAL

Only Train Controllers may Authorise a TOA for Track under their control. A TOA is Issued to the Protection Officer (PO) and gives Exclusive Occupancy.

A single Worksite, including equipment, and associated Rail Traffic, may occupy the portion of Track defined by the TOA.

The Track may be broken or Obstructed.

NOTE

Additional Work Group/s are permitted in a single Worksite and are managed by the Protection Officer responsible for the Worksite. See Procedure 9018 for details.

3. AUTHORIZATION

Before Authorising the TOA, the Train Controller must make sure that:

- another Work On Track Authority is not in use within the proposed limits;
- approaching Rail Traffic can be Restrained at the ends of the Section that includes the proposed limits;
- any Rail Traffic holding a Authority for Unidirectional movement has Cleared the limits of the proposed Worksite by confirming with the PO;
  - the Rail Traffic Identification Number of the lead Vehicle of a Train or the last Vehicle of a Track Vehicle movement;
  - the location of the Rail Traffic with the Rail Traffic Crew; or
  - the Section is Clear.
- Rail Traffic that is Stabled and not associated with the TOA and is within the limits of the TOA, must not be Authorised to move;
- Rail Traffic associated with the TOA within the limits has been identified and is being managed as agreed by the PO and the Train Controller;
- the PO knows about any existing obstructions; and
- Blocking Facilities have been applied to prevent Unauthorised entry into the proposed limits by Rail Traffic.
The *Train Controller* must confirm with the *PO* the:

- name and contact details of the *PO*;
- type of work;
- intended start and finish times; and
- *Location* using one or more of the following identifiers:
  - a kilometre sign and section;
  - station name;
  - *Overhead line Equipment (OLE)* structure number;
  - a *Points* number;
  - a *Signal* number;
  - an observance of *Points or Signal Aspect* change;
  - a kilometre marker;
  - permanent structures, such as bridge, roadway or overpass used only in conjunction with one of the above identifiers; or
  - another identifier.

### 4. PROTECTION OFFICER

#### 4.1. PROTECTION OFFICER

There must be a *PO* present at the *Worksite* for the period of the work. A *PO* must:

- get the *TOA*;
- make sure that work in the *Danger Zone* does not begin before the required safety measures are in place;
- be responsible for the *Protection of Workers* from *Rail Traffic*;
- make sure the *Tracks* between *Worksites* and protecting *Locations* remain clear of obstructions;
- make sure that *Worksites* are protected against the *Unauthorised* entry or exit of *Rail Traffic*; and
- tell *Workers* about the *Locations of Safe Places*.

#### 4.2. CHANGE OF PROTECTION OFFICER

An outgoing *PO* must tell an incoming *PO* about the *Worksite Protection* arrangements. The incoming *PO* must:

- tell affected *Train Controllers* about the changed contact arrangements; and
- make a *Permanent Record* of the handover of the *TOA*.
5. **OBTAINING A TRACK OCCUPANCY AUTHORITY**

The *Train Controller* and the *PO* must confirm and record on the *TOA*:

- the works program number *Advertising* the *TOA*;
- the *TOA* limits;
- that *Blocking Facilities* have been applied or, where approved by the *Train Controller*, the *Crank Handle* has been removed to prevent entry of *Rail Traffic* into the portion of *Track* within the proposed *TOA* limits;
- in single line territory, that the *Half Pilot Keys* have been removed from both ends of the affected *Section*;
- identification of *Points Secured*;
- the anticipated duration of the *TOA*;
- name of the *PO* and contact details;
- name of the issuing *Train Controller*;
- time of *Issue*; and
- date of *Issue*.

6. **PROTECTION**

**WARNING**

Work must not start in the *Danger Zone* until the required *Protection* is in place.

The *PO* must arrange for:

- *Controlled Absolute Signals* to be set at Stop with *Blocking Facilities* applied;
- where the *Signal* has more than one *Route* available apply *Blocking Facilities* to prevent *Unauthorised* entry of *Rail Traffic* from entering the *TOA* limits; and/or
- *Crank Handles* to be removed to set *Controlled Absolute Signals* at Stop; and
- *Points Secured* to prevent *Unauthorised* entry of *Rail Traffic* from entering the portion of track within the *TOA limits*.

The *Train Controller* must apply *Blocking Facilities* to prevent *Unauthorised* entry of *Rail Traffic* from entering the *TOA*. 
6.1. IN-FIELD PROTECTION

In-Field Protection is a Rail Clamped Stop Sign.

In-Field Protection is not required between the Worksite and the end of a Terminal Line if the Train Controller tells the PO that there is no planned Rail Traffic movements from that direction.

6.2. CENTRALISED TRAFFIC CONTROL

Blocking Facilities must be applied to prevent Unauthorised entry of Rail Traffic and In-Field Protection placed:

- at that Protecting Signal; or
- at least 200m from the Worksite in such a position that any Rail Traffic entering the TOA limits must pass over it.

Where a departure Signal is the Protecting Signal, the PO must also take possession of the Half Pilot Key.

FIGURE 6.1: Example of Protection arrangements for an individual Worksite on single line.
FIGURE 6.2: Example of Protection arrangements for an individual Worksite on Double Line.
6.3. WORKSITE WITHIN 200M OF TOA LIMITS AND PROTECTING SIGNAL

When a Protecting Signal more than 200m from the Worksite is not available and a set of Points is available to divert Rail Traffic the PO must arrange for:

- *Points Secured for a different Route*;
- place *In-Field Protection* in a *Location* that is clear of the *Points* and will not present a risk to *Workers* from *Rail Traffic* on the *Adjacent* line; and
- will not interfere with *Rail Traffic Travelling* on the other *Route*.

**WARNING**

PO must ensure that *Workers* and equipment do not have the potential to encroach within the *Danger Zone* of the *Adjacent* line.

---

**FIGURE 6.3:** Example of Protecting Signal and In-Field Protection less than 200m from the Worksite and Points are Secured for a different Route.

If *Points* cannot be *Secured* for a different *Route*, use a controlled signal at least 200m from the *Worksite*.
6.4 ADJACENT LINE

If the Safety Assessment indicates that Workers need to be protected from Rail Traffic on Adjacent lines, the PO must arrange for Adjacent lines to be protected as per Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

7. RAIL TRAFFIC

Only Rail Traffic associated with the TOA may enter the limits of the TOA.

Other Rail Traffic may cross the TOA to enter or exit a Running Line, Siding or Level Crossing, but only with the POs agreement.

Before entering the TOA, Rail Traffic Crew must verify with the PO that the TOA is In Effect.

7.1. RAIL TRAFFIC ENTERING OR TRAVELLING WITHIN THE TRACK OCCUPANCY AUTHORITY LIMITS

The PO must manage all Rail Traffic movement within the TOA.

The PO must make sure that Rail Traffic associated with the TOA does not exceed the limits of the TOA.

Rail Traffic that is associated with the TOA and is entering and travelling within the TOA limits must:

- be Piloted; or
- receive written or verbal instructions from the PO.

Where a Pilot is used, the PO or a delegate must act as the Pilot.

7.2. FIXED SIGNALS

Fixed Signals within the limits of the TOA must, where possible, be placed to Proceed for Rail Traffic movement.

Where Fixed Signals cannot be placed to Proceed for Rail Traffic movement, they must be passed under direction of the Pilot or the PO.

7.3. RAIL TRAFFIC DEPARTING THE TRACK OCCUPANCY AUTHORITY

Rail Traffic may depart from the limits of the TOA only on the Authority of the Train Controller.
7.4. COMMUNICATIONS WITH TRAIN CONTROL

The PO must be the only point of contact between Train Control and Work Groups for matters of Worksite Protection.

The PO must tell affected Train Controllers:

- the Protection arrangements;
- about Protection arrangements on Adjacent lines; and
- about work progress.

The PO must if necessary, seek an extension of time.

8. FULFILLING THE TRACK OCCUPANCY AUTHORITY

Before Fulfiling the Authority the PO must make sure and tell the Train Controller that:

- associated Rail Traffic, Workers and equipment are Clear of the Danger Zone;
- all Work Groups have cleared the Worksite;
- In-Field Protection has been removed;
- if necessary, Signals have been restored to normal use; and
- the portion of Track included in the Authority is available for use.

The PO and the Train Controller must Fulfil the Authority.

The Train Controller must confirm with the PO that:

- Blocking Facilities can be removed; and
- in single line territory, the Half Pilot Keys have been replaced.

NOTE

The Train Controller must test the departure signals after Half Pilot Keys have been replaced before the PO leaves the site.

Testing of Signals must be carried out in accordance with Rule 6005 Fixed Signals.

The PO must tell the Train Controller about operating restrictions that have been placed or removed.

9. KEEPING RECORDS

Train Controllers and the PO must keep Permanent Records about the details, including Protection arrangements and changes to the Worksite Protection arrangements.
10. REFERENCE

Rule 6003 Blocking Facilities
Rule 6005 Fixed Signals
Procedure 9000 Clipping Points
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines

11. EFFECTIVE DATE

1 November 2018
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

3011
ABSOLUTE SIGNAL BLOCKING
# Contents

1. Purpose ................................................................................................................. 3  
2. General .................................................................................................................. 3  
3. Authorisation ......................................................................................................... 4  
4. Protection Officer ................................................................................................... 5  
   4.1. Request for Absolute Signal Blocking from Worker Other Than the Protection Officer ......................................................................................... 5  
   4.2. Change of Train Controller ........................................................................... 6  
5. Obtaining Approval for Absolute Signal Blocking .................................................. 6  
6. Protection .............................................................................................................. 7  
   6.1. Protecting Signal .......................................................................................... 7  
   6.2. Train Controller ............................................................................................ 7  
   6.3. Temporary Removal of Blocking Facilities ................................................... 8  
   6.4. Adjacent Line ............................................................................................... 8  
7. Communications with Train Control ...................................................................... 8  
8. Ending Absolute Signal Blocking ........................................................................... 9  
9. Keeping Records ................................................................................................... 9  
10. Reference .............................................................................................................. 9  
11. Effective Date ....................................................................................................... 9
1. **PURPOSE**

The purpose of this rule is to outline the protocols for Authorising and using Absolute Signal Blocking (ASB) in the Public Transport Authority (PTA) Network. This is a method of working in the Danger Zone by:

- maintaining Controlled Absolute Signals at Stop to exclude Rail Traffic from the limits of a Worksite; and/or,
- where the Signal has more than one Route available apply Blocking Facilities to protect all entry points to the Worksite.

2. **GENERAL**

Only Train Controllers may approve ASB for Track under their control.

If a Safety Assessment shows that it is safe, some kinds of work may be done in the Danger Zone without a Work on Track Authority. ASB is one of those methods of working.

**WARNING**

If the Safety Assessment shows that a Work on Track Authority is necessary, work must not be done using the ASB method.

ASB may be used only:

- for station staff to access the Track;
- for work using equipment which can be removed from the Track by Workers without mechanical assistance;
- at Network Access Level Crossings, to allow Vehicles to cross the Track; or
- to allow Vehicles to directly cross the Track.

If ASB is used, then a Worker may work alone. In this case, that Worker is also the Protection Officer (PO):

- the ASB method of Protection must be applied to Controlled Absolute Signals; and/or
- where the Signal has more than one Route available apply Blocking Facilities to protect all entry points to the Worksite.

The ASB method must not be used for work that breaks the Track or affects Infrastructure integrity.
3. AUTHORIZATION

Before authorising ASB working, the Train Controller must make sure that:

- another Work on Track Authority is not in use within the limits of the proposed Worksite;
- any Rail Traffic holding an Authority for Unidirectional movement has Cleared the limits of the proposed Worksite by confirming with the PO that the Section is Clear;
- Rail Traffic that is Stabled and within the limits of the ASB, must not be Authorised to move;
- the PO knows about any existing obstructions;
- the Kilometre locations of the limits of the Worksite have been identified;
- the protecting Signals have been identified;
- Blocking Facilities have been applied to prevent Unauthorised entry by Rail Traffic into the limits of the Worksite; and
- where the Signal has more than one Route available apply Blocking Facilities to protect all entry points to the Worksite.

**WARNING**

The Train Controller must not permit ASB if there is any doubt about the Location of the proposed Worksite.

The Train Controller must confirm with the PO the:

- name and contact details of the PO;
- the works program number;
- type of work; and
- Location using:
  - a kilometre sign and if required one of the following identifiers;
  - station name;
  - Overhead Line Equipment (OLE) structure number;
  - a Points Identification Number;
  - a Signal Identification Number;
  - an observance of Points or Signal Aspect change; or
  - permanent structures, such as a bridge, roadway or overpass used only in conjunction with one of the above identifiers.
4. **PROTECTION OFFICER**

There must be a PO present at the *Worksite* for the period of work, except if the ASB is used to allow road vehicles to directly cross the *Track* or where station staff are required to access the *Track*. In these circumstances the *Train Controller* may apply ASB and assume the role of the PO.

If *Authorised* by the *Train Controller*, the PO must remove and safeguard the *Crank Handle*.

A PO must:

- make sure that work in the *Danger Zone* does not begin before the required safety measures are in place;
- be responsible for the *Protection of Workers from Rail Traffic*;
- ensure the *Worksite* is for the shortest practical distance;
- identify all entry points and the kilometre location of the limits of the *Worksite*;
- make sure that the *Worksite* is protected against the entry of *Rail Traffic*;
- inform all workers of the limits of the *Worksite*; and
- tell *Workers* about the *Location of Safe Places*.

**NOTE**

A PO must be satisfied that other work will not interfere with *Protection* duties.

4.1. **REQUEST FOR ABSOLUTE SIGNAL BLOCKING FROM WORKER OTHER THAN THE PROTECTION OFFICER**

The *Train Controller* may apply ASB to allow station staff to access the *Track* or *Vehicles* to directly cross the *Track*.

The *Train Controller* must:

- confirm the *Location* and the work to be done;
- make sure the *Route* is *Clear* between the *Protecting Signals* and the proposed *Worksite*, and that any *Rail Traffic* that has passed the *Worksite* will not return;
- set the *Protecting Signals* at Stop and apply *Blocking Facilities*; and/or
- where the *Signal* has more than one *Route* available apply *Blocking Facilities* to protect all entry points to the *Worksite*;
- advise the *Worker* of the arrangements and *Authorize* the work; and
- when told that the area is *Clear*, remove *Blocking Facilities*. 
4.2. CHANGE OF TRAIN CONTROLLER

An outgoing Train Controller must tell an incoming Train Controller about the Worksite Protection arrangements.

The incoming Train Controller must make a Permanent Record of the handover.

5. OBTAINING APPROVAL FOR ABSOLUTE SIGNAL BLOCKING

The Train Controller and the PO must confirm and record on the Absolute Signal Blocking Form:

- the kilometre Location of the Worksite;
- identify the Controlled Absolute Signals to be set and kept at STOP with Blocking Facilities applied; and/or
- where the Signal has more than one Route available, identify the Route to the Worksite and apply Blocking Facilities to protect all entry points;
- that Blocking Facilities have been applied or, where approved by the Train Controller, the Crank Handle has been removed. The purpose of this precaution is to prevent entry of Rail Traffic into the limits of the Worksite;
- the blocking Authority or identification number from the Train Control System;
- identification of the Points Secured;
- the PO’s name and contact details;
- the approving Train Controller’s name;
- the time of approval; and
- the date of approval.

When the ASB is approved the PO must put the required safety measures in place and commence work.
6. PROTECTION

**WARNING**

Work must not start in the *Danger Zone* until the required *Protection* is in place.

The PO must arrange for:

- *Controlled Absolute Signals* to be set at Stop with *Blocking Facilities* applied; and/or
- where the *Signal* has more than one *Route* available apply *Blocking Facilities* to protect all entry points to the *Worksite*; or
- *the Crank Handle* to be removed to set *Controlled Absolute Signals* at Stop.

6.1. PROTECTING SIGNAL

Where the proposed *Worksite* is within 200m of a *Protecting Signal*:

- two consecutive *Controlled Absolute Signals* must be set at Stop with *Blocking Facilities* applied; or
- one *Controlled Absolute Signals* must be set at Stop with *Blocking Facilities* applied, with:
  - *Points Secured* to prevent access; or
  - an easily reached *Safe Place* available and a *Lookout* is provided.

A *Lookout* is positioned as a secondary safety measure and does not need to comply with sighting distances as per *Rule 3013 Lookout Working*.

**WARNING**

The *Lookout* must not do any work other than look for and give *Warning* about the approach of *Rail Traffic*.

If *Rail Traffic* can approach from more than one direction, the PO must protect all *Points* of entry into the *ASB* limits.

If the *Worksite* includes the limits of a *Terminal Line* then *Protection* is not required from that direction provided the *Train Controller* and PO agree there are no *Rail Traffic* movements from that direction.

*Protection* will still need to be applied to prevent any *Rail Traffic* movements towards the end of the *Terminal Line*.

6.2. TRAIN CONTROLLER

The *Train Controller* must confirm with the PO that:

- the protecting *Controlled Absolute Signals* have been set at Stop with *Blocking Facilities* applied; and/or
• all potential Signal Routes available have had Blocking Facilities applied to protect all entry points to the Worksite;

• the Route is Clear of Rail Traffic between the Protecting Signals and the Limits of the Worksite;

• any Rail Traffic between the Protecting Signals and the limits of the ASB Worksite is contained within a Work on Track Authority; or

• any Rail Traffic that has passed Complete beyond the Worksite will not return.

WARNING
When a Work on Track Authority with Rail Traffic is located between the Protecting Signal and the ASB Worksite, the Train Controller must not fulfil the Work on Track Authority until:

• Rail Traffic is confirmed as clear of Track; or

• the ASB has been removed.

Train Controllers must not Authorise movements into the limits of the Worksites where ASB is in use.

6.3. TEMPORARY REMOVAL OF BLOCKING FACILITIES

Blocking Facilities may be temporarily removed in accordance with Rule 6003 Blocking Facilities.

6.4. ADJACENT LINE

If the Safety Assessment indicates that Workers need to be protected from Rail Traffic on Adjacent lines, the PO must arrange for Adjacent lines to be protected in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

7. COMMUNICATIONS WITH TRAIN CONTROL

The PO must be the only point of contact between Train Control and Work Groups for matters of Worksite Protection.

The PO must tell affected Train Controllers about:

• the Protection arrangements;

• Protection arrangements on Adjacent lines; and

• work progress.
8. **ENDING ABSOLUTE SIGNAL BLOCKING**

Before ending the ASB the PO must make sure and tell the Train Controller that:

- all *Workers* and equipment have cleared the *Danger Zone*;
- *Points* securing devices have been removed; and
- *Blocking Facilities* have been removed and *Infrastructure* restored to normal use.

The *Train Controller* must make sure that the *Points* and *Controlled Absolute Signals* are working correctly after the *Points* have been restored to normal operation.

The *PO* must tell the *Train Controller* about operating restrictions that have been placed or removed.

9. **KEEPING RECORDS**

*Train Controllers* and the *PO* must keep *Permanent Records* about the details, including *Protection* arrangements and changes to the *Worksite Protection* arrangements.

10. **REFERENCE**

Rule 2007 Network Communication  
Rule 6003 Blocking Facilities  
Procedure 9000 Clipping Points  
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines  
Procedure 9016 Written Authorities and Forms

11. **EFFECTIVE DATE**

1 November 2018
INTENTIONALLY BLANK
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

3013
LOOKOUT WORKING
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
  2.1. Tools ............................................................................................................ 3
3. Authorisation ......................................................................................................... 3
  3.1. Entering the Rail Corridor for Work .............................................................. 3
4. Protection Officer ................................................................................................. 4
5. Protection .............................................................................................................. 4
  5.1. Safe Place .................................................................................................... 4
  5.2. Noisy Environment ....................................................................................... 5
  5.3. Placing Lookouts .......................................................................................... 5
  5.4. Additional Lookouts ..................................................................................... 5
  5.5. Using Lookouts at Night ............................................................................... 6
  5.6. Lookouts ....................................................................................................... 6
  5.7. Rail Traffic Crew ........................................................................................... 6
  5.8. Giving Warning ............................................................................................. 7
  5.9. Low Light and Poor Visibility ........................................................................ 7
  5.10. Adjacent Line .............................................................................................. 7
6. Calculating Minimum Sighting Distance ............................................................. 8
  6.1. Example of How Warning Time is Calculated .............................................. 8
  6.2. Minimum Sighting Distance ......................................................................... 9
7. Ending Lookout working ...................................................................................... 9
8. Keeping Records ................................................................................................. 10
9. Reference ............................................................................................................ 10
10. Effective Date ...................................................................................................... 10
1. PURPOSE

The purpose of this rule is to detail how Lookout Working is to be used to give Warning of approaching Rail Traffic to Track Workers in or near the Danger Zone in the Public Transport Authority (PTA) Network.

2. GENERAL

If the Absolute Signal Blocking (ASB) method is practical, this is the preferred method and must be applied as per Rule 3011 Absolute Signal Blocking.

The Lookout Working method must not be used for work on Overhead Line Equipment (OLE), work that breaks the Track or affects Infrastructure integrity.

Lookouts are the only safety measure used in this method of working on Track.

Work in the Danger Zone using the Lookout Working method must only be done where visibility allows.

The Lookout must be clearly identified.

Lookout Working may be used for:

- work requiring the use of tools which can be easily and immediately removed from the Track by one person without mechanical assistance;
- inspections in the Danger Zone; or
- work conducted in the Rail Corridor, but outside of the Danger Zone, that may intrude into the Danger Zone.

2.1. TOOLS

Workers using or being protected by the Lookout Working method may use Light, Powered or Light, Non-powered Hand Tools.

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

3. AUTHORISATION

No-one is permitted to enter the Rail Corridor without the appropriate Authority.

3.1. ENTERING THE RAIL CORRIDOR FOR WORK

Before entering the Rail Corridor, the Protection Officer (PO) must log into the PTA’s Electronic Book On System. When the work is completed, the PO must log off in the Electronic Book On System.

If for any reason the Electronic Book On System fails to record the PO’s details then the PO must contact the Infrastructure Control Officer (ICO).
4. **PROTECTION OFFICER**

There must be a *PO* present at the *Worksite* for the period of the work. A *PO* must:

- conduct a pre-work *Safety Assessment*;
- ensure work in the *Danger Zone* does not begin before the required safety measures are in place;
- be responsible for the *Protection of Workers* from *Rail Traffic*;
- tell *Workers* about the *Locations of Safe Places*;
- determine the number of *Lookouts* needed to protect the work; and
- ensure *Lookouts* do not work continuously at the same *Location* for more than 60 minutes.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>A PO</em> must be satisfied that other work will not interfere with <em>Protection</em> duties.</td>
</tr>
</tbody>
</table>

5. **PROTECTION**

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work must not start in the <em>Danger Zone</em> until the required safety measures are in place.</td>
</tr>
</tbody>
</table>

5.1. **SAFE PLACE**

An easily reached *Safe Place* must be available when the *Lookout Working* method is used. *Workers* must immediately remove themselves, tools and materials to a *Safe Place* when told to do so by a *Lookout*.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>A PO</em> must take into account the extra time required for the minimum <em>Sighting Distance</em> when providing additional <em>Lookouts</em> or touch <em>Warnings</em>.</td>
</tr>
</tbody>
</table>
5.2. NOISY ENVIRONMENT

When the PO has assessed that the audible Warning provided by the Lookout cannot be heard by all Track Workers, the PO must ensure Touch Lookouts are positioned to provide physical Warning to those Workers.

NOTE
The Touch Lookout must do no work other than providing Warning.
The Lookout must be visible to the Worker at all times.

5.3. PLACING LOOKOUTS

The PO must ensure:

- that the Locations of Lookouts and the visibility conditions give Lookouts enough Sighting Distance of approaching Rail Traffic;
- that Lookouts have Effective Communication with Workers and are equipped with an audible Warning device;
- when working in Bidirectional locations where rail traffic can approach from either direction:
  - a minimum of one (1) Lookout is placed either side of the Worksite and a minimum of five (5) seconds reaction time can be achieved when calculating the Sighting Distance; or
  - a single Lookout is placed to provide warning for both directions and a minimum of 15 seconds reaction time can be achieved when calculating the Sighting Distance.
- 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 before the Rail Traffic arrives.

5.4. ADDITIONAL LOOKOUTS

To give sufficient Warning time POs may use additional Lookouts.

A maximum of one additional Lookout may be placed in each direction from which Rail Traffic may approach.

The additional Lookout must remain within sight and hearing distance of the Lookout closest to the Worksite.
5.5. USING LOOKOUTS AT NIGHT

The General Manager of the Network & Infrastructure Division will only permit the use of Lookout Working at Night when the Worksite Location has been compared against Exclusion Zone locations identified in the N&I 8800-400-001 Public Transport Authority Rail Access Manual.

Work in the Exclusion Zones will not be permitted to be carried out under Lookout Working; other Protection methods in these rules will be used.

5.6. LOOKOUTS

WARNING
Lookouts must not use radios or telephones to warn Workers.

Lookouts must:
• agree with the PO about how Workers will be warned about the approach of Rail Traffic;
• keep a continuous watch for the approach of Rail Traffic;
• remain within sight and hearing or in physical touch of the Workers. If this cannot be done safely, the PO is to be notified;
• tell the PO if the Lookout needs to move from the designated position and only move if all Workers and their equipment are in a Safe Place or a new Lookout is in position; and
• tell the PO if conditions, such as visibility, change.

WARNING
Lookouts must do no work other than look for and give Warning about the approach of Rail Traffic.

Lookouts must not:
• manage the passage of Rail Traffic;
• do any other work; or
• use any portable electronic devices, such as radios, mobile phones or any similar devices, at any time.

5.7. RAIL TRAFFIC CREW

On approaching work groups, the Rail Traffic Crew must sound the Whistle to give Warning. If Workers are not clearing to a Safe Place the Whistle must be repeatedly sounded until the Lookout has given the CLEAR Handsignal.
5.8. GIVING WARNING

When Rail Traffic approaches the Worksite or a Warning is given by the additional Lookout, the Lookout must immediately warn the Workers.

NOTE
Warning must be given as soon as Rail Traffic is seen to be approaching even if the Rail Traffic has not reached the minimum Sighting Distance.

WARNING
If acknowledgement of the Lookout’s Warning is not immediate the Lookout must continue to sound the Warning until acknowledged.

The Workers must:

- acknowledge the Lookout’s Warning by raising an arm above their head;
- remove their tools, equipment and materials from the Danger Zone;
- move to a Safe Place; and
- notify the Lookout by raising an arm above their head.

Only when all Workers and their equipment are in a Safe Place can the Lookout face the approaching Rail Traffic and give the CLEAR Handsignal to the Rail Traffic Crew.

The Lookout must maintain the CLEAR Handsignal until the Rail Traffic Crew acknowledges the Handsignal.

The Lookout must make sure that the line is Clear before telling the PO that it is safe for work to resume.

5.9. LOW LIGHT AND POOR VISIBILITY

POs must always remain aware of the changing conditions at the Worksite such as low light and the reduction of Sighting Distance for the Lookout.

If Sighting Distance reduces below the minimum required, then work must cease and all Workers and equipment must move to a Safe Place.

5.10. ADJACENT LINE

If the Safety Assessment indicates that Workers need to be protected from Rail Traffic on Adjacent lines, the PO must arrange for the Adjacent lines to be protected as per Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.
6. CALCULATING MINIMUM SIGHTING DISTANCE

WARNING
If the calculated minimum Warning times cannot be met, then Lookout Working must not be used.

WARNING
When using additional Lookouts, five (5) extra seconds reaction time must be added for each additional Lookout.

The minimum Warning time required shall be calculated as follows:
- reaction time (minimum five (5) seconds);
- time required to move the Workers, tools, equipment and materials clear of the Danger Zone (determined in the test conducted by the PO); plus
- being in a Safe Place for a minimum of ten (10) seconds before Rail Traffic arrives.

6.1. EXAMPLE OF HOW WARNING TIME IS CALCULATED

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction time</td>
<td>5 seconds</td>
</tr>
<tr>
<td>Time required to move the Workers, tools, equipment and materials clear of the Danger Zone</td>
<td>20 seconds</td>
</tr>
<tr>
<td>Minimum time to be in a Safe Place before Rail Traffic arrives</td>
<td>10 seconds</td>
</tr>
<tr>
<td>Minimum Warning time required</td>
<td>Total 35 seconds</td>
</tr>
</tbody>
</table>

TABLE 6.1: Example of How Warning Time is Calculated

WARNING
The Sighting Distance must be measured.

The minimum Sighting Distance needed to see an approaching Rail Traffic movement, so that sufficient Warning can be given, is dependent on the minimum Warning time required and the maximum Track speed, and is determined from Table 6.2 as demonstrated in the following example:
Example: The minimum Warning time required in this example is 35 seconds and the maximum Track speed in the area is 120 km/h, therefore the minimum Sighting Distance of approaching Rail Traffic is calculated in Table 6.2 to be 1170 metres.

The Lookout must therefore be positioned to be able to see approaching Rail Traffic from at least this far in order to give the minimum Warning time required. The calculations must be rounded up to the nearest five (5) seconds.

The PO must:

- know the maximum speed for Rail Traffic on the Section of line that the work is to take place; and
- conduct a test to determine how long it will take for the Workers to remove their equipment and move to the Safe Place.

### 6.2. MINIMUM SIGHTING DISTANCE

<table>
<thead>
<tr>
<th>Maximum Track Speed</th>
<th>20 sec</th>
<th>25 sec</th>
<th>30 sec</th>
<th>35 sec</th>
<th>40 sec</th>
<th>45 sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 km/h</td>
<td>730 m</td>
<td>910 m</td>
<td>1090 m</td>
<td>1270 m</td>
<td>1450 m</td>
<td>1630 m</td>
</tr>
<tr>
<td>120 km/h</td>
<td>670 m</td>
<td>840 m</td>
<td>1000 m</td>
<td>1170 m</td>
<td>1340 m</td>
<td>1500 m</td>
</tr>
<tr>
<td>110 km/h</td>
<td>620 m</td>
<td>770 m</td>
<td>920 m</td>
<td>1070 m</td>
<td>1230 m</td>
<td>1380 m</td>
</tr>
<tr>
<td>100 km/h</td>
<td>560 m</td>
<td>700 m</td>
<td>840 m</td>
<td>980 m</td>
<td>1120 m</td>
<td>1250 m</td>
</tr>
<tr>
<td>90 km/h</td>
<td>500 m</td>
<td>630 m</td>
<td>750 m</td>
<td>880 m</td>
<td>1000 m</td>
<td>1130 m</td>
</tr>
<tr>
<td>80 km/h</td>
<td>450 m</td>
<td>560 m</td>
<td>670 m</td>
<td>780 m</td>
<td>890 m</td>
<td>1000 m</td>
</tr>
<tr>
<td>70 km/h</td>
<td>390 m</td>
<td>490 m</td>
<td>590 m</td>
<td>680 m</td>
<td>780 m</td>
<td>880 m</td>
</tr>
<tr>
<td>60 km/h</td>
<td>340 m</td>
<td>420 m</td>
<td>500 m</td>
<td>590 m</td>
<td>670 m</td>
<td>750 m</td>
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<tr>
<td>50 km/h</td>
<td>280 m</td>
<td>350 m</td>
<td>420 m</td>
<td>490 m</td>
<td>560 m</td>
<td>630 m</td>
</tr>
<tr>
<td>40 km/h</td>
<td>230 m</td>
<td>280 m</td>
<td>340 m</td>
<td>390 m</td>
<td>450 m</td>
<td>500 m</td>
</tr>
<tr>
<td>30 km/h</td>
<td>170 m</td>
<td>210 m</td>
<td>250 m</td>
<td>300 m</td>
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</tr>
<tr>
<td>25 km/h</td>
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<tr>
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<td>250 m</td>
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<tr>
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<td>110 m</td>
<td>130 m</td>
<td>150 m</td>
<td>170 m</td>
<td>190 m</td>
</tr>
</tbody>
</table>

*TABLE 6.2: Minimum Sighting Distance*

### 7. ENDING LOOKOUT WORKING

The PO must make sure all Workers, tools, equipment and materials are clear of the Worksite.
8. KEEPING RECORDS

The PO must keep Permanent Records about the details and changes to the Worksite Protection arrangements on the Lookout Working Worksite Planner form.

9. REFERENCE

Rule 2001 Walking in the Danger Zone  
Rule 2003 Handsignals and Verbal Commands  
Rule 3011 Absolute Signal Blocking  
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines  
N&I 8800-400-001 Public Transport Authority Rail Access Manual

10. EFFECTIVE DATE

1 November 2018
C O N T E N T S

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Track Vehicle Approval .......................................................................................... 3
4. Preparing Track Vehicles for Travel ......................................................................... 4
5. Occupying a Running Line ...................................................................................... 4
6. Track Vehicle Travel ............................................................................................... 5
   6.1. Authority for Road Rail Vehicles to Travel ................................................... 6
      6.1.1. Obtaining a Road Rail Vehicle Authority ........................................ 6
      6.1.2. Road Rail Vehicle Stopping for Work ............................................. 7
      6.1.3. Filling a Road Rail Vehicle Authority ............................................. 7
   6.2. Authority for Track Maintenance Machines to Travel ....................................... 7
7. Travelling in Convoy .............................................................................................. 7
   7.1. Competent Worker in the Leading Track Vehicle ......................................... 8
   7.2. Track Vehicle Operators .............................................................................. 8
8. Travelling Over Level Crossings ............................................................................ 9
9. Disabled Track Vehicles ......................................................................................... 9
10. Overdue Track Vehicle ......................................................................................... 9
11. Travelling Through Local Possession Authority or Track Occupancy Authority Limits ................................................................. 10
12. Track Vehicle Speed Limits .................................................................................. 10
   12.1. Road Rail Vehicles ..................................................................................... 10
13. Headlights ............................................................................................................ 10
14. Tail Lights ............................................................................................................ 11
15. Hazard Lights ...................................................................................................... 11
16. Stabling Track Vehicles ....................................................................................... 11
17. Track Vehicle Stopping for Work ......................................................................... 11
18. Keeping Records .................................................................................................. 11
19. Reference ............................................................................................................ 12
20. Effective Date ...................................................................................................... 12
1. PURPOSE

The purpose of this rule is to prescribe protocols for managing Track Vehicle safety when traveling and carrying out work in the Public Transport Authority (PTA) Network.

2. GENERAL

Track Vehicles include:

- Road Rail Vehicles (RRVs) including:
  - Overhead Line Equipment (OLE) Maintenance Vehicles; and
  - Track Inspection Vehicles.
- Track Maintenance Machines, including recorder cars.

Prior notice must be given by Special Notice when Track Vehicles (other than RRVs) are to run or work on a Running Line.

Competent Workers in charge of Track Vehicles must act in accordance with Rule 2027 Responsibilities of Rail Traffic Crew.

Whistles must be used in accordance with Rule 4007 Rail Traffic Whistles.

3. TRACK VEHICLE APPROVAL

Track Vehicle types must be approved as Fit For Purpose by the Rollingstock Manager.

WARNING

If a Track Vehicle that does not reliably operate Track Circuits is to Travel over self-normalising Points, and the Points are in a position where they can self-normalise, the Points must be Secured for the passage of the Track Vehicle.

The Rollingstock Manager must provide a list of Track Vehicles that reliably operate the Signalling system and Level Crossing Warning equipment.

Only Track Vehicles approved by the Rollingstock Manager are permitted to operate under Live OLE.

If compatible Track Vehicles are fitted with approved coupling devices, they must be coupled together during Travel.
4. PREPARING TRACK VEHICLES FOR TRAVEL

The Track Vehicle Operator must make sure that the Vehicle is fitted with working:

- communication systems;
- brakes;
- Headlights;
- Tail Lights, or an approved End-of-Train Marker on the rear of the last Vehicle; and
- Hazard Lights, or flashing Warning lights.

The Track Vehicle Operator must make sure that the Vigilance Control Device, where fitted, is working.

The Track Vehicle Operator must make sure the Vehicle carries:

- one red and one yellow flag;
- an approved Track Circuit Shorting Clip; and
- Safeworking forms as necessary.

5. OCCUPYING A RUNNING LINE

Track Vehicles may occupy a Running Line only with the Authority of the:

- Train Controller responsible for the Location;
- Possession Protection Officer (PPO) in charge of a Local Possession Authority (LPA); or
- Protection Officer (PO) in charge of a Track Occupancy Authority (TOA).

The Track Vehicle Operator must use a Track Circuit Shorting Clip, with the Train Controller’s permission, to illuminate a Track to enable Train Control to confirm the Location.

The Train Controller must apply Blocking Facilities to protect the Location at which the Track Vehicle is to enter or be placed on the Running Line.

The Train Controller must advise the Competent Worker when Blocking Facilities have been applied. Blocking Facilities must be applied and removed in accordance with Rule 6003 Blocking Facilities.

Track Vehicles must enter or be placed on Running Lines only:

- within the limits of an Occupancy Authority; or
- at approved on and off Track Locations where the approach of Rail Traffic can be managed by Controlled Absolute Signals.

The Location where the Track Vehicle is to enter or be placed on the Running Line must be verified using one or more of the following:

- a kilometre sign and Section;
• a Points Identification Number;
• a Signal Identification Number;
• observance of Points or Signal Aspect change;
• recognised on/off tracking Locations; or
• another identifier.

Before Travel begins, the Competent Worker in charge of the Track Vehicles must make sure that there is Effective Communication between all Track Vehicles involved and the Train Controller.

6. TRACK VEHICLE TRAVEL

Track Vehicles singularly, coupled, or in Convoy must be worked under Manual Block Working conditions, in accordance with Rule 5023 Manual Block Working.

The Train Controller must tell affected Train Controllers of the Travel of a Track Vehicle.

Travelling Track Vehicles must have a Competent Worker in charge of the movement in the lead Vehicle.

In double line and multiple line areas, Track Vehicles must Travel on the correct Running Line.

Fixed Signals must be passed at Stop in accordance with Rule 6013 Passing Fixed Signals at Stop.

Approved Track Vehicles Travelling on Signal indications must be supervised by a Worker who is competent in the relevant System of Safeworking.

Where the Competent Worker in charge of the Track Vehicle is unfamiliar with the Route, a Competent Worker who is familiar with the Route must accompany the Track Vehicle in accordance with Procedure 9006 Piloting Rail Traffic.

The Competent Worker must inform the Train Controller about:
• the number and types of Track Vehicles in a movement; and
• the identification numbers and order of all Vehicles in the Convoy.

As necessary during Travel, the Competent Worker in charge of the movement must:
• obey instructions from the Train Controller;
• report to the Train Controller entry and clearance of Sections as they occur;
• tell other Track Vehicle Operators in the Convoy about conditions relating to the movement;
• tell the Train Controller when the limits of the Authority have been Cleared by the rearmost Vehicle;
• make sure that Points are set correctly and Secured for the movement;
• be alert for Workers in the Rail Corridor; and
• get the POs Authority before entering into a Work on Track Authority area or traversing a Worksite within a Work on Track Authority.

6.1. AUTHORITY FOR ROAD RAIL VEHICLES TO TRAVEL

Road Rail Vehicles (RRV) must be Authorised to Travel on a Road Rail Vehicle Authority (RRVA) issued by the Train Controller responsible for that area; or

On an RRVA transferred to the Train Controller from an adjoining area of control where the RRV will be moving from one area of control to another.

RRV movements between areas of control must comply with Rule 2029 Section 5 Responsibilities of Train Controllers and Rule 5023 Manual Block Working.

Where a RRV is Authorised to follow, but is not part of a Rail Traffic movement Convoy, the Competent Worker must not permit the RRV to be within 200 metres of that Rail Traffic.

6.1.1. Obtaining a Road Rail Vehicle Authority

The Competent Worker in charge of a RRV must obtain an RRVA from the Train Controller responsible for the area over which the Vehicle is to Travel; or

When the RRV is Travelling from one area of control to an adjoining area of control, the Travel Authority will continue on the RRVA issued.

The RRVA will be transferred to the Train Controller of the adjoining area and both Train Controllers will sign the RRVA as acceptance of the transfer.

Before Authorising an RRVA, the Train Controller must make sure that:

• any Rail Traffic holding a Unidirectional Authority has Cleared the starting point of the proposed RRVA and will not be returning;

• the Competent Worker knows about existing obstructions;

• the Competent Worker understands and agrees to the limits of the RRVA;

• they confirm Location by means of a Track Circuit Shorting Clip;

• Blocking Facilities have been applied to prevent Unauthorised, entry by Rail Traffic into the RRVA limits; and

• the Competent Worker is advised when Blocking Facilities have been applied.

Before moving into the Section the Competent Worker must:

• confirm Blocking Facilities have been applied by repeating back to the Train Controller the details of the Blocking;

• record the Blocking on the RRVA;

• ensure that all Points are correctly set; and

• obtain the Train Controller’s verbal approval to PROCEED.
6.1.2. Road Rail Vehicle Stopping for Work

The Competent Worker must act in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines, if the RRV is required to stop for work, when:

- there areAdjacent lines; and
- the work may encroach into the Danger Zone of the Adjacent line.

6.1.3. Fulfilling a Road Rail Vehicle Authority

The RRVA must be Fulfilled by the Competent Worker when all of the instructions on the RRVA have been carried out.

The Train Controller and the Competent Worker must endorse their copy of the RRVA as Fulfilled.

Where all of the instructions on the RRVA cannot be carried out then the Train Controller and the Competent Worker must endorse their copy of the RRVA as Cancelled.

6.2. Authority for Track Maintenance Machines to Travel

Track Maintenance Machines must Travel only on the Authority of Fixed Signals.

Fixed Signals displayed to the first Vehicle apply to all Track Maintenance Machines in the Convoy.

A Track Maintenance Machine must not Set Back without the Authority of the Train Controller.

After the Track Maintenance Machines have passed the Protecting Signal, the Train Controller must ensure the Protecting Signal is at Stop and Blocking Facilities applied, in accordance with Rule 5023 Manual Block Working.

7. Travelling in Convoy

No more than three (3) Track Vehicles are permitted to Travel in Convoy.

The Competent Worker in charge must ensure that Track Vehicle Operators:

- maintain a minimum distance of 200 metres and a maximum distance of 400 metres between Track Vehicles; and
- close the distance to less than 200 metres, when instructed to do so.

The Convoy must close the distance nominated by the Competent Worker:

- if the leading Vehicle stops;
- before entering a Section; and
- before Travelling over an Active Control Level Crossing.

Track Vehicle Operators in Convoy must maintain Effective Communication.

If communication is lost, the Track Vehicle Operator must Travel at Restricted Speed.
7.1. COMPETENT WORKER IN THE LEADING TRACK VEHICLE

The Competent Worker in the leading Track Vehicle must warn the following Track Vehicle Operators if the lead Track Vehicle:

- slows down or stops;
- approaches an Active Control Level Crossing; or
- approaches the Protection limits of a Worksite.

7.2. TRACK VEHICLE OPERATORS

Track Vehicle Operators must adjust the speed of Track Vehicles according to messages received from the Competent Worker or other Track Vehicle Operators within the Convoy.

Tell other Track Vehicle Operators in the Convoy:

- when pre-planned easily identified Locations or reference points during the journey have been reached; and
- if there is a need to slow down or stop the Track Vehicle.

If the Track Vehicle Operator is unsure of the whereabouts of the Track Vehicles ahead when the last reported Location is reached, the Track Vehicle Operator must Travel at Restricted Speed.

If the Track Vehicle Operator needs to stop the vehicle, the Track Vehicle Operator must warn following Track Vehicle Operators by the use of one or more of the following:

- sending two-way radio messages;
- flashing the Track Vehicle’s lights;
- sounding the Whistle of the Track Vehicle repeatedly; or
- giving a STOP Handsignal at a Safe Braking Distance behind the Track Vehicles.

The Track Vehicle Operator must continue to give the Warning until acknowledged by the following Track Vehicle Operator.
8. TRAVELLING OVER LEVEL CROSSINGS

The Competent Worker in the leading Track Vehicle must tell the other Track Vehicle Operators:

- that the Track Vehicle is approaching a Level Crossing, and the following Track Vehicle Operators are to reduce their speed and be prepared to Stop;
- they are to close up safely and Travel over the Level Crossing as a group; and
- the Track Vehicle Operator must ensure that all Track Vehicles, in particular insulated Track Vehicles, Travel over a Level Crossing only if it is safe to do so.

If a Track Vehicle cannot reliably operate the Signalling system and Level Crossing Warning equipment as approved by the Rollingstock Manager, the Track Vehicle Operator must stop short of the Level Crossing.

Before Travelling over a Level Crossing, the Competent Worker must make sure that:

- the Level Crossing is Clear of all road or pedestrian traffic;
- there is sufficient Sighting Distance to enable their Vehicle to cross; or
- if required, they manually operate the Level Crossing Warning equipment.

9. DISABLED TRACK VEHICLES

Where a Track Vehicle becomes disabled or causes an obstruction for any reason, it must be protected in accordance with Rule 4001 Protecting Rail Traffic.

10. OVERDUE TRACK VEHICLE

If a Track Vehicle movement is overdue the Competent Worker and the Train Controller must act in accordance with Rule 2027 Responsibilities of Rail Traffic Crew and Rule 2029 Responsibilities of Train Controllers.
11. TRAVELLING THROUGH LOCAL POSSESSION AUTHORITY OR TRACK OCCUPANCY AUTHORITY LIMITS

Only Track Vehicles associated with the LPA or TOA are permitted to enter the limits of the Work on Track Authority.

Track Vehicles entering or Travelling within the limits of the Work on Track Authority must:

- be Piloted; or
- receive written or verbal instructions from the PPO or PO.

Track Vehicles must only depart from the limits of the Work on Track Authority with the Train Controller’s Authority.

12. TRACK VEHICLE SPEED LIMITS

**WARNING**

Track Vehicle Operators must Travel at speeds that are safe for the prevailing conditions.

The speed of a Track Vehicle must not exceed:

- the speed specified for the Track Vehicles; or
- if it is lower than the speed specified for the Track Vehicle, the Track Speed.

Track Vehicles, other than RRVs, must not exceed 20 km/h over a Level Crossing.

12.1. ROAD RAIL VEHICLES

A RRV must not exceed 10 km/h over Level Crossing or Points.

If a RRV must Travel behind a Train in a Section, it must travel at a Controlled Speed.

13. HEADLIGHTS

Headlights must be switched on during Travel.

Headlights must be dimmed when approaching:

- Rail Traffic;
- a Platform;
- a Location where Shunting is in progress; and
- a road vehicle on a nearby road.
14. **TAIL LIGHTS**

*Track Vehicles* must have red *Tail Lights* lit or an approved *End-of-Train Marker* during *Travel*.

15. **HAZARD LIGHTS**

*Track Vehicles* on a *Running Line* must have approved and operating *Hazard Lights*.

16. **STABLING TRACK VEHICLES**

In the *Electrified Area, Track Vehicles* must be *Stabled* in accordance with *Rule 2017 Working Around Electrical Infrastructure*.

*Track Vehicles* must be:

- *Clear of Running Lines*;
- *Secured* against unintended movement; or
- if *Stabled* in a *Siding*, be inside *Derail Devices*.

*Track Vehicles* must be *Secured* against *Unauthorised* operation and unintended movement at all times.

17. **TRACK VEHICLE STOPPING FOR WORK**

*Track Vehicles* stopping for work, other than *RRVs* must be protected using a *Work on Track Authority*.

18. **KEEPING RECORDS**

The *Train Controller* and the *Competent Worker* in charge of *Track Vehicles* must keep a *Permanent Record* of the details of the *Travel* of the *Track Vehicle*.
19. REFERENCE

Rule 2007 Network Communications
Rule 2017 Working Around Electrical Infrastructure
Rule 2027 Responsibilities of Rail Traffic Crew
Rule 2029 Responsibilities of Train Controllers
Rule 4001 Protecting Rail Traffic
Rule 4007 Rail Traffic Whistles
Rule 5023 Manual Block Working
Rule 6003 Blocking Facilities
Rule 6013 Passing Fixed Signals at Stop
Procedure 9006 Piloting Rail Traffic
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines
Procedure 9016 Written Authorities and Forms

20. EFFECTIVE DATE

1 November 2018
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

3025
TEMPORARY SPEED RESTRICTIONS
CONTENTS

1. Purpose ......................................................................................................................... 3
2. General .......................................................................................................................... 3
   2.1. Advice of a Temporary Speed Restriction ................................................................. 3
3. Types of Signs ................................................................................................................ 3
   3.1. Temporary Speed Restriction Ahead Sign ................................................................. 4
   3.2. Temporary Speed Restriction Start Sign ................................................................. 5
   3.3. Temporary Speed Restriction End Sign ................................................................. 5
   3.4. Placement ............................................................................................................. 5
   3.5. Diverging Routes ................................................................................................. 6
   3.6. Adjoining Temporary Speed Restrictions ............................................................ 6
   3.7. Stopping Place Between Speed Restrictions Ahead and Speed Restrictions Start Signs ...................................................................................................................... 6
4. General arrangement of Temporary Speed Restrictions Signs ..................................... 7
5. Keeping Records .......................................................................................................... 12
6. Reference ...................................................................................................................... 12
7. Effective Date ............................................................................................................... 12
1. PURPOSE

The purpose of this rule is to set out the protocols for applying a Temporary Speed Restriction (TSR) in the Public Transport Authority (PTA) Network. The object of a TSR is to reduce the speed of Rail Traffic to ensure safe passage over a Section of Track when the Track is not safe for Normal Speed.

2. GENERAL

A TSR is applied by a Maintenance Representative.
A TSR overrides any existing higher speed.
A TSR may be applied due to:
- Infrastructure conditions;
- risks to Track Workers; or
- weather conditions.

2.1 ADVICE OF A TEMPORARY SPEED RESTRICTION

Rail Traffic Crew must be advised about a TSR by TSR signs, and:
- the issue of a Special Notice; or
- the issue of a Condition Affecting the Network (CAN) warning.

If it is not possible to place TSR signs immediately, Rail Traffic Crew must be given written or verbal advice of the TSR, before they enter the affected Section of Track.

TSR signs must be placed as soon as practical after the Speed Restriction is imposed.

Rail Traffic Crew must keep the advice for the duration of the journey.

3. TYPES OF SIGNS

TSR Ahead signs are diamond shaped with a yellow background and a horizontal black stripe and:
- indicate that a TSR is ahead; and
- display the maximum speed permissible for each Rail Traffic type over the affected Section of Track.

The TSR start signs are circular shaped with a yellow background and a horizontal black stripe to indicate:
- to inform Rail Traffic Crew that they are entering the limits of a TSR; and
- the maximum speed permissible for each Rail Traffic type over the affected Section of Track.
TSR end signs are white and circular to indicate to Rail Traffic Crew that they are leaving the limits of a TSR.

**NOTE**
In Bidirectional areas where the TSR applies in both directions, the back of the TSR start sign will indicate to Rail Traffic Crew that they are leaving the limits of a TSR.

### 3.1. TEMPORARY SPEED RESTRICTION AHEAD SIGN

<table>
<thead>
<tr>
<th>SIGN</th>
<th>NAME AND DESCRIPTION</th>
<th>REQUIRED ACTION</th>
</tr>
</thead>
</table>
| ![Temporary Speed Restriction Ahead Sign](image) | Temporary Speed Restriction Ahead  
This sign is placed 1000 metres from a Temporary Speed Restriction Start sign.  
Placed below the Temporary Speed Restriction Ahead sign is a Speed Restriction sign showing the maximum speed permitted for the restricted area. | Rail Traffic Crew to Proceed, being prepared to bring the Rail Traffic under control and Travel at the speed shown on the Speed Restriction Board placed below the sign.  
**Note:**  
If no maximum speed is displayed on the Temporary Speed Restriction Ahead sign, Rail Traffic Crew must be prepared to reduce speed as detailed in the Drivers Information documentation where available, or to 15km/h over the TSR area. |
### 3.2. Temporary Speed Restriction Start Sign

<table>
<thead>
<tr>
<th>SIGN</th>
<th>NAME AND DESCRIPTION</th>
<th>REQUIRED ACTION</th>
</tr>
</thead>
</table>
| ![Temporary Speed Restriction Start Sign](image) | Temporary Speed Restriction Start  
This sign is placed 50 metres from the area covered by a Temporary Speed Restriction.  
Placed below the Temporary Speed Restriction Start sign is a Speed Restriction sign showing the maximum speed permitted for the restricted area. | Rail Traffic is to Proceed at the speed shown on the Speed Restriction sign placed below the Speed Restriction Start sign.  
Note: If no maximum speed is displayed on the Temporary Speed Restriction Start sign, Rail Traffic Crew must be prepared to reduce speed as detailed in the Drivers Information documentation where available, or to 15km/h over the TSR area. |

### 3.3. Temporary Speed Restriction End Sign

<table>
<thead>
<tr>
<th>SIGN</th>
<th>NAME AND DESCRIPTION</th>
<th>REQUIRED ACTION</th>
</tr>
</thead>
</table>
| ![Temporary Speed Restriction End Sign](image) | Temporary Speed Restriction End  
This sign is placed 50 metres past the Temporary Speed Restriction.  
Note: In Bidirectional areas where the TSR applies in both directions, the back of the TSR Start sign will indicate to Rail Traffic Crew that they are leaving the limits of a TSR. | Proceed at the Restricted Speed until the Rail Traffic consist has passed beyond the Temporary Speed Restriction End sign. |

### 3.4. Placement

TSR signs must be placed:
- wherever possible, to the left of the line to which the TSR applies; and
- where they can be clearly seen by Rail Traffic Crew.
3.5. DIVERGING ROUTES

TSR signs must be placed on all lines that might give access to the affected line.

If the TSR applies on a diverging Route, the TSR ahead sign and TSR start sign will display an arrow in the direction of the divergence, or additional text to indicate the Track to which the Speed Restriction applies.

3.6. ADJOINING TEMPORARY SPEED RESTRICTIONS

Where there are Adjoining TSRs and the signs would overlap, the TSRs are to be treated as a single TSR and the lowest speed will apply.

3.7. STOPPING PLACE BETWEEN SPEED RESTRICTION AHEAD AND SPEED RESTRICTION START SIGNS

Where a stopping place exists between the Speed Restriction Ahead and the Speed Restriction Start signs, a Speed Restriction Ahead sign must be placed at the departure end of the Stopping Place before the Speed Restriction Start sign.

Attached to the sign will be the letter R and a Speed Restriction sign showing the speed the Rail Traffic is to proceed over the restricted area.
4. **GENERAL ARRANGEMENT OF TEMPORARY SPEED RESTRICTION SIGNS**

*FIGURE: 4.1 General arrangement of TSR signs for single Bidirectional Track.*
FIGURE: 4.2 General arrangement of TSR signs on double line Unidirectional Track.
FIGURE: 4.3 General arrangement of TSR signs on double line Unidirectional Track where only one line is affected.
FIGURE: 4.4 General arrangement of TSR signs for a diverging line.
FIGURE 4.5 General Arrangement of TSR signs when a stopping place is between the Speed Restriction ahead and the Speed Restriction Starts signs.
5. **KEEPING RECORDS**

*Maintenance Representatives, Rail Traffic Crew and Train Controllers* must keep a *Permanent Record* of the details of TSRs.

6. **REFERENCE**

Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN)

7. **EFFECTIVE DATE**

| 19 February 2016 |
# CONTENTS

1. Purpose .................................................................................................................. 3
2. General .................................................................................................................. 3
3. Rail Traffic Protection ........................................................................................... 3
   3.1. Disabled Rail Traffic ..................................................................................... 4
   3.2. Adjacent Lines .............................................................................................. 4
       3.2.1. Track Circuit Shorting Clips ............................................................ 5
4. Restrain Authority .................................................................................................. 6
5. Reference .............................................................................................................. 6
6. Effective Date ........................................................................................................ 6
1. PURPOSE

The purpose of this rule is to outline provisions for Protection for Rail Traffic that has failed or become an obstruction in the Public Transport Authority (PTA) Network.

2. GENERAL

If an obstruction is reported, the Train Controller responsible for the affected Section of line must act in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN), and:

- instruct Rail Traffic Crew in or approaching the affected Block to stop their Rail Traffic immediately; and

- apply Blocking Facilities in accordance with Rule 6003 Blocking Facilities to prevent entry of further Rail Traffic into an affected or potentially affected Section of Track.

3. RAIL TRAFFIC PROTECTION

WARNING
An unexpected loss of brake pipe pressure may indicate that Rail Traffic has derailed or has derailed and fouled Adjacent lines. Where Adjacent lines are or might be Obstructed, those lines must be Protected first.

Rail Traffic requires Protection where:

- the Rail Traffic Crew needs assistance;
- the Rail Traffic has Obstructed, or might Obstruct, Adjacent lines; or
- the line is Obstructed.

The Train Controller may advise the Rail Traffic Crew of Disabled Rail Traffic that Protection is not required provided:

- communications with the first approaching Rail Traffic has been established; and
- that Rail Traffic Crew is advised of the circumstances.

The Train Controller must make a Permanent Record of that advice.
3.1. DISABLED RAIL TRAFFIC

The Rail Traffic Crew of Disabled Rail Traffic must:

- ensure their own safety;
- tell the Train Controller:
  - there is a failure;
  - the Location of the Disabled Rail Traffic; and
  - the nature of the failure, when this has been determined.

The Train Controller must, where necessary:

- issue a Restraint Authority to the Rail Traffic Crew of:
  - the Disabled Rail Traffic;
  - approaching Rail Traffic; and
  - apply Blocking Facilities.

3.2. ADJACENT LINES

**WARNING**

Where the Rail Traffic Crew are unable to confirm that the Adjacent line is not obstructed, they must assume that it is obstructed and protect that line first.

If the Rail Traffic Crew suspect their Rail Traffic has fouled an Adjacent line they must immediately tell the Train Controller.

Where the Rail Traffic Crew are not assured by the Train Controller that other Rail Traffic has been stopped or prevented from entering the affected Block they must:

- immediately and repeatedly transmit an Emergency broadcast; and
- use Rail Traffic lights to warn any approaching Rail Traffic by flashing the Headlights.

On Bidirectional lines where there are Adjacent lines, Protection must be applied to affected lines in both directions.

The Rail Traffic Crew must apply Protection to affected Adjacent lines with the priority they consider necessary.
### 3.2.1. Track Circuit Shorting Clips

**WARNING**

*Track Circuit Shorting Clips* cannot be used unless it is determined that it is safe to do so.

The *Rail Traffic Crew* must determine that if there are any fallen *Overhead Line Equipment (OLE)* and they are not close to or in contact with the *Rail Traffic* or rails.

In *Track Circuited Territory* the *Rail Traffic Crew* must:

- prior to getting out of the *Rail Traffic*, determine that there are no fallen *Overhead Line Equipment (OLE)* close to or in contact with the *Rail Traffic* or rails;

- once it has been determined that it is safe to do so, fasten a *Track Circuit Shorting Clip* to the rails of the *Adjacent* obstructed lines; and

- if possible, confirm that *Affected Signals* show Stop.

Where the *Track Circuit Shorting Clip* cannot be used because of the proximity of fallen *OLE* and the *Rail Traffic Crew* cannot establish communications with *Train Control*, the *Rail Traffic Crew* must continue to:

- transmit an *Emergency* broadcast; and

- use *Rail Traffic* lights to warn any approaching *Rail Traffic* by flashing the *Headlights.*

![FIGURE 3.1: Track Circuit Shorting Clip placement to protect an Adjacent line when Obstructed, where there are Bidirectional lines.](image)
4. RESTRAINT AUTHORITY

Rail Traffic Crews that have been issued a Restraint Authority must not allow their Rail Traffic to move unless the Train Controller has cancelled the Restraint Authority.

5. REFERENCE

Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN)
Rule 6003 Blocking Facilities

6. EFFECTIVE DATE

24 July 2017
1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
  2.1. Testing Equipment ....................................................................................... 3
  2.2. Dangerous Goods ......................................................................................... 3
3. Brakes ................................................................................................................... 4
  3.1. Holding Rail Traffic Stationary ...................................................................... 4
    3.1.1. Security of Rail Traffic Left on Running Lines ................................ 4
  3.2. Abnormal or Defective Brakes ..................................................................... 4
  3.3. Handbrakes and Securing Devices .............................................................. 4
5. Driver Supervisory Systems .................................................................................. 5
6. Defective Equipment ............................................................................................. 5
  6.1. Speedometer Failure .................................................................................... 5
  6.2. Driver Supervisory Systems ......................................................................... 6
7. Defective Vehicles ................................................................................................. 6
  7.1. Inspecting and Managing Defects ................................................................. 7
8. Reference .............................................................................................................. 8
9. Effective Date ........................................................................................................ 8
1. PURPOSE

The purpose of this rule is to provide information to Rail Traffic Crew about requirements for ensuring Rail Traffic is Fit For Purpose before accessing, and during Travel on the Public Transport Authority (PTA) Network.

2. GENERAL

Rail Traffic must be Fit For Purpose before access to and during Travel on the PTA Network.

Rail Traffic must comply with the PTA’s gauge outline in accordance with PTA 8190-400-001 Standard Gauge Mainline Code of Practice Track & Civil Infrastructure and PTA 8190-400-002 Narrow Gauge Mainline Code of Practice Track & Civil Infrastructure.

Rail Traffic Crew must not, without Authority, bypass, disconnect or turn off any device provided for the safe operation of Rail Traffic.

Prior to entering the Network, Rail Traffic Crew must ensure that all necessary brake tests have been performed and equipment is within specified limits.

Rail Traffic Integrity must be re-established whenever the Consist changes. Rail Traffic Integrity must be documented and maintained.

Rail Traffic must be compatible with Civil Infrastructure standards.

Loading carried on Rail Traffic must be Secure and restrained safely throughout the journey.

2.1. TESTING EQUIPMENT

Prior to entering the PTA Network, Rail Traffic Crew must ensure that the following equipment is fully operational:

- speedometer, if this can be checked;
- Motive Power Unit lights;
- Motive Power Unit Whistle;
- End-of-Train Marker or End-of-Train Monitor;
- communications equipment; and
- Driver Supervisory Systems.

2.2. DANGEROUS GOODS

Before Rail Traffic Travels in the PTA Network, the classes of Dangerous Goods and the Identification Numbers of Vehicles carrying Dangerous Goods must be recorded in the Consist documentation.
3. BRAKES

3.1. HOLDING RAIL TRAFFIC STATIONARY

Rail Traffic braking systems must be capable of stopping and holding the Rail Traffic stationary in all Network conditions applicable to the Route.

3.1.1. Security of Rail Traffic Left on Running Lines

Whenever it is necessary for Rail Traffic or a portion of Rail Traffic to be left unattended on a Running Line for longer than 30 minutes, in addition to the application of the automatic brake, 100 per cent hand/park brakes must be applied. Vehicles not provided with hand brakes must, where necessary, be Secured to meet the requirements indicated above.

3.2. ABNORMAL OR DEFECTIVE BRAKES

If during Travel there is an abnormal application of brakes or the braking performance is inadequate, the Rail Traffic Crew must:

- bring the Rail Traffic to a complete Stop;
- advise the Train Controller;
- if necessary, apply Protection for the Rail Traffic in accordance with Rule 4001 Protecting Rail Traffic;
- if possible, determine the cause of the application or the extent of the defect;
- if possible, remedy the cause of the application or defect; and
- tell the Train Controller when the journey has been resumed or if the defect cannot be remedied.

3.3. HANDBRAKES AND SECURING DEVICES

Equipment used for securing Rail Traffic must be tested before Rail Traffic is detached from a Motive Power Unit or a continuous brake system.

If a Vehicle without working Handbrakes needs to be detached and Secured, it must be coupled to a Vehicle that has working Handbrakes and can secure the combined weight of both Vehicles.
4. RAIL TRAFFIC SAFETY MANAGEMENT SYSTEMS

Rail Traffic Safety Management Systems may include:

- Vigilance Control;
- Speedometer;
- Detonator Detector System (freight);
- Automatic Train Protection System;
- Platform Detection System; or
- Safe Braking System.

5. DRIVER SUPERVISORY SYSTEMS

Driver Supervisory Systems may include:

- Vigilance Control;
- Detonator Detector System (freight); or
- Automatic Train Protection System.

6. DEFECTIVE EQUIPMENT

Where any Driver Supervisory System fails enroute, the Rail Traffic Crew must obtain the Operator’s Representative approval to continue.

The Train Controller must be advised by the Rail Traffic Crew of:

- the system failure; and
- the Operator’s Representative approval to continue.

6.1. SPEEDOMETER FAILURE

Where approved to continue by their Operator’s Representative, affected Rail Traffic Crew must advise the Train Controller of the approval and ensure that permissible speeds are not exceeded and may continue to Travel until:

- the Motive Power Unit is remarshalled at the first suitable Location;
- the equipment can be repaired or replaced; or
- the Motive Power Unit is Worked Out Of Service.
6.2. DRIVER SUPERVISORY SYSTEMS

If Driver Supervisory Systems in the leading Motive Power Unit are faulty and need to be Isolated during Travel, the Rail Traffic Crew and the Train Controller must confer to determine what actions are required to ensure safety of the Rail Traffic and Track Workers.

Actions to ensure safety of the Rail Traffic may include:
- getting a second Rail Traffic Crew member for driver only operation;
- reduction of speed; and
- Travel at Restricted Speed.

If the affected Motive Power Unit cannot continue to Travel safely; it must be Worked Out Of Service.

7. DEFECTIVE VEHICLES

WARNING
Where there is a risk of being struck by Rail Traffic on Adjacent lines, the Rail Traffic Crew must arrange to implement safety measures to reduce the risk.

WARNING
Adjacent lines may be under the control of different Train Controllers or Access Providers.

If the Rail Traffic Crew becomes aware that any portion of their Rail Traffic that may be defective, the Rail Traffic Crew must:
- stop if necessary;
- tell the Train Controller;
- protect the Rail Traffic, if required; and
- inspect Rail Traffic for fault or failure, or if this is not possible, arrange for inspection.
7.1. INSPECTING AND MANAGING DEFECTS

WARNING

If the Rail Traffic Crew suspect that a Rail Traffic defect may have caused damage to Infrastructure the Rail Traffic Crew must tell the Train Controller.

If the inspection confirms that there is a defect, the Rail Traffic must tell the Train Controller:

- the nature of the defect; and
- if the defect can be remedied on site.

If the Rail Traffic Crew considers that the defective Rail Traffic cannot Travel normally, the Rail Traffic Crew or Operator’s Representative must determine:

- the ability of the Rail Traffic to Travel;
- any restrictions to be placed on the Rail Traffic for Travel; or
- the proposed plan for removing the Rail Traffic from Running Lines.

If the defective Rail Traffic is able to Travel, the Rail Traffic Crew must tell the Train Controller about operating restrictions that apply.

If the Rail Traffic is to be detached, the Rail Traffic Crew must:

- advise the Train Controller of the details of the Rail Traffic including any Dangerous Goods and the Rail Traffic’s defect;
- jointly agree with the Train Controller, as to the Location where the Rail Traffic is to be detached and;
- secure the Rail Traffic at the agreed Location.

Any equipment that has detached from Rail Traffic must be moved to a Location where it cannot be struck by other Rail Traffic.

The Train Controller must be advised of any detached equipment, and if the detached equipment cannot be moved clear of the line.
8. **REFERENCE**

Rule 4001 Protecting Rail Traffic  
4040-409-502 Automatic Train Protection Training Course  
8190-400-001 Standard Gauge Mainline Code of Practice Track & Civil Infrastructure  
8190-400-002 Narrow Gauge Mainline Code of Practice Track & Civil Infrastructure

9. **EFFECTIVE DATE**

1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

4005
RAIL TRAFFIC LIGHTS AND MARKERS
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Headlight Use ........................................................................................................ 3
4. Displaying Visibility Lights ..................................................................................... 7
5. Using Lights for Warning ....................................................................................... 7
6. Failed Headlights ................................................................................................... 7
   6.1. Total Headlight Failure and Visibility Lights are Not Available ..................... 7
   6.2. Total Headlight Failure and Visibility Lights are Available ............................ 8
7. Failed Headlights and Whistle ............................................................................... 8
   7.1. Headlights and Whistle Failed, and Visibility Lights Not Available ............... 8
   7.2. Headlights and Whistle Failed, and Visibility Lights Available ..................... 8
8. Rail Traffic Markers ............................................................................................... 9
   8.1. Front of Rail Traffic ....................................................................................... 9
   8.2. Rear of Rail Traffic ....................................................................................... 9
   8.3. Motive Power Unit is Rear Vehicle .................................................................. 9
   8.4. Inspection of End-of-Train Marker ................................................................ 9
   8.5. Failed End-of-Train Marker ......................................................................... 9
   8.6. Missing End-of-Train Markers ..................................................................... 10
   8.7. Identifying Number ..................................................................................... 10
   8.8. Other Lights ............................................................................................... 10
9. Reference ............................................................................................................. 10
10. Effective Date ...................................................................................................... 10
1. PURPOSE

The purpose of this rule is to provide the protocols for use of Visibility Lights and Marker Lights on Rail Traffic in the Public Transport Authority (PTA) Network to:

- indicate the normal direction of Travel;
- indicate completeness of Rail Traffic; and
- enhance the visibility of Rail Traffic.

2. GENERAL

Rail Traffic must not enter the PTA Network unless the Rail Traffic lights and Marker Lights are working correctly.

Headlights must be set on full, at the front of all moving Rail Traffic unless required to be dimmed or turned off as prescribed within this rule.

An approved End-Of-Train Marker or at least one approved red light must be displayed at the rear of Rail Traffic.

3. HEADLIGHT USE

WARNING

When approaching Level Crossings, Headlights must remain on full unless opposing Rail Traffic is simultaneously approaching. In this case, Rail Traffic Crew are permitted to dim the Headlights.

As indicated in the following diagrams Rail Traffic Crew are permitted to dim or turn off Headlights when Visibility Lights are operating under the following conditions:
Figure 3.1 When approaching, standing or working at Locations where Shunting is being performed.

FIGURE: 3.2: When approaching or stopped behind other Rail Traffic.
FIGURE: 3.3: When approaching and crossing the lead end of opposing Rail Traffic.
FIGURE: 3.4: When Handsignals are displayed or when approaching people or workers on or about the Track.
4. **DISPLAYING VISIBILITY LIGHTS**

If provided, the **Visibility Lights** of **Rail Traffic** must be turned on when the **Rail Traffic** is moving on **Running Lines**.

If **Visibility Lights** fail, **Rail Traffic** may continue normally, provided **Headlights** are turned on.

---

5. **USING LIGHTS FOR WARNING**

If necessary, **Rail Traffic Crew** may flash their **Headlights** or change the colour of **Marker Lights** displayed, from white to red to give a **Warning**.

---

6. **FAILED HEADLIGHTS**

All cases of total **Headlight** failure must be reported to the **Train Controller**.

The **Train Controller** and the **Rail Traffic Crew** must make arrangements to effect repairs.

If this is not possible, the **Rail Traffic** may proceed to the next repair facility.

**WARNING**

Where **Headlights** have failed, **Rail Traffic Crew** may need to make additional use of the **Whistle** to compensate for the lack of visual **Warning**.

---

6.1. **TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS NOT AVAILABLE**

If visibility is good, **Rail Traffic** must **Travel at Controlled Speed**.

During periods of **Low Visibility**, **Rail Traffic** must **Proceed at Controlled Speed** to the next repair facility.

When approaching **Level Crossings**, **Rail Traffic** must **Travel at Restricted Speed** prepared to Stop and not proceed over the **Level Crossing**, until:

- **Active Control Level Crossing** warning equipment is operating; or
- road or pedestrian traffic is not approaching or has stopped at the **Level Crossing**.

When approaching **Locations** where the **Rail Traffic Crew** is aware of or can see **Workers** or other personnel are present, **Rail Traffic** must **Travel at Restricted Speed**.

During hours of darkness, **Rail Traffic** must be declared a failure and recovered in accordance with **Rule 4009 Removing Disabled Rail Traffic**.
6.2. **TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* have failed and *Visibility Lights* are available, *Rail Traffic* may *Travel* at *Normal Speed*.

---

7. **FAILED HEADLIGHTS AND WHISTLE**

7.1. **HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS NOT AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are not available and no other *Motive Power Unit* can be used as the lead unit, the *Rail Traffic Crew* must carry out instructions for operating with total *Headlight* failure when *Visibility Lights* are not available in accordance with Section 6.1.

7.2. **HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are available, the *Rail Traffic Crew* must:

- continue the movement with the *Visibility Lights* turned on and *Travel* at:
  - *Controlled Speed* if visibility is good; or
  - *Restricted Speed* during periods of *Low Visibility*;

- slow to *Restricted Speed* before each *Level Crossing* and be prepared to *Stop* if road or pedestrian traffic is approaching;

- not *Proceed* over the *Level Crossing* unless, at an *Active Control Level Crossing*, equipment is operating.

- slow to *Restricted Speed* approaching other *Rail Traffic* and where *Workers* may be present on the ground;

- slow to *Restricted Speed* approaching people on or about the *Track*; and

- slow or *Stop* as necessary, if the approach of *Rail Traffic* is not attracting the appropriate attention.
8. RAIL TRAFFIC MARKERS

8.1. FRONT OF RAIL TRAFFIC

The front of Rail Traffic must be identified by either Headlights, Visibility Lights or Marker Lights.

If Marker Lights become defective they must be repaired or replaced as soon as practicable.

8.2. REAR OF RAIL TRAFFIC

The rear of Rail Traffic must be identified by:
- an End-Of-Train Marker;
- one or more clearly visible, steady or flashing red lights;
- an End-Of-Train Monitor; or
- a combination of the above.

End-Of-Train Markers and monitors must have at least one red light that is illuminated during the hours of darkness or when visibility is low.

8.3. MOTIVE POWER UNIT IS REAR VEHICLE

When a Motive Power Unit is operating without Vehicles or is at the rear of the Rail Traffic Consist, one of the following must be displayed:
- one or more red tail lights; or
- an End-Of-Train Marker.

8.4. INSPECTION OF END-OF-TRAIN MARKER

The operation of an End-Of-Train Marker must be checked before departure and where possible enroute by:
- direct observation of the marker; or
- using telemetry in the cab of the Rail Traffic.

8.5. FAILED END-OF-TRAIN MARKER

If the rear End-Of-Train Marker fails enroute:
- the Train Controller must be told;
- a red reflector, red flag or red light may be used as an alternative rear marker; and
- Rail Traffic may Travel only as far as the next Location where the End-Of-Train Marker can be repaired or replaced.
8.6. Missing End-Of-Train Markers

If Rail Traffic is detected with no End-Of-Train Marker the Train Controller must be informed.

Rail Traffic may Travel at the discretion of the Train Controller only as far as the next Location where the marker can be replaced.

Rail Traffic must be worked in accordance with Rule 5023 Manual Block Working until the End-Of-Train Marker has been replaced.

The Train Controller must confirm that:

- the Rail Traffic is Complete; or
- the Sections to the rear of the Rail Traffic are clear.

If the Rail Traffic is unable to be confirmed as Complete, affected Sections must be treated as Obstructed in accordance with Rule 2009 Reporting and Responding to Conditions Affecting the Network.

Until it can be established that the section is clear, the Train Controller must:

- apply Blocking Facilities to prevent other Rail Traffic from entering the affected Section;
- tell Rail Traffic Crew within the affected Section to Stop their Rail Traffic; and
- warn Rail Traffic on Adjacent lines.

8.7. Identifying Number

Where provided, number lights must be illuminated on the leading Motive Power Unit.

8.8. Other Lights

Step and other lights may be illuminated on all units to improve visibility of Rail Traffic at Night.

9. Reference

Rule 2009 Reporting and Responding to Conditions Affecting the Network (CAN)
Rule 4009 Removing Disabled Rail Traffic
Rule 5023 Manual Block Working

10. Effective Date

1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFeworkING RULES AND PROCEDURES

4007
RAIL TRAFFIC WHISTLES

4007 Rail Traffic Whistles Rev1.00
Date: 01 November 15
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
   2.1. Whistle Codes .............................................................................................. 4
   2.2. Failure to Acknowledge Rail Traffic Whistle ................................................. 4
3. Failed Whistle ........................................................................................................ 4
   3.1. Response to Failure ..................................................................................... 4
   3.2. Running With Failed Whistle ........................................................................ 4
4. Reference ............................................................................................................... 5
5. Effective Date ........................................................................................................ 5
1. PURPOSE

This purpose of this rule is to detail the protocols concerning Whistles which are used by Rail Traffic to give audible Warning or acknowledge Handsignals in the Public Transport Authority (PTA) Network.

2. GENERAL

Before Rail Traffic enters the Network, Rail Traffic Whistles must be working correctly. Rail Traffic Whistles must not be sounded unless a valid reason exists. Rail Traffic Whistles must be sounded with appropriate intensity, length and repetition for the circumstances.

Unless otherwise prohibited, Rail Traffic Whistles must be sounded when:

- approaching road Level Crossings;
- approaching pedestrian Level Crossings not fitted with automatic gates, Warning lights and bells;
- necessary for safety;
- people or animals are on or near the Track;
- acknowledging Handsignals; and
- otherwise required by the PTA Safeworking Rules and Procedures.

Where multiple Rail Traffic movements are likely to simultaneously approach a Level Crossing, the Rail Traffic Crew must repeatedly sound the Whistle until Rail Traffic has reached the Level Crossing.

The Rail Traffic Crew must sound the Whistle when approaching Locations where there is limited Sighting Distance when the Rail Traffic movement is travelling in the Wrong Running Direction on a Unidirectional Track.
2.1. WHISTLE CODES

Rail Traffic Crew must use the following Whistle codes:

<table>
<thead>
<tr>
<th>CODE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>One long whistle</td>
<td><em>Warning</em>, challenge or approaching a road or pedestrian <em>Level Crossing.</em></td>
</tr>
<tr>
<td>One short whistle</td>
<td>acknowledgment or moving off in depots.</td>
</tr>
<tr>
<td>Two short whistles</td>
<td>Setting back.</td>
</tr>
<tr>
<td>Three short whistles</td>
<td>Danger-Stop.</td>
</tr>
<tr>
<td>Continuous whistling</td>
<td>When assistance is required</td>
</tr>
</tbody>
</table>

2.2. FAILURE TO ACKNOWLEDGE RAIL TRAFFIC WHISTLE

If an expected response or acknowledgment to the Rail Traffic Whistle is not received, the Rail Traffic Crew must continue to sound the Whistle and, if required, attempt to Stop the Rail Traffic.

3. FAILED WHISTLE

The Rail Traffic Crew must report all cases of Whistle failure to the Train Controller and to the Operators’ Representative.

3.1. RESPONSE TO FAILURE

The Rail Traffic Crew and the Train Controller must make arrangements to:

- effect repairs;
- remarshal the Motive Power Units; or
- replace the lead Motive Power Units.

3.2. RUNNING WITH FAILED WHISTLE

If the Whistle fails and cannot be repaired and no other Motive Power Units can be used as the lead unit, the Rail Traffic Crew must:

- continue the movement and Travel at;
  - *Controlled Speed* if visibility is good; or
  - *Restricted Speed* during periods of *Low Visibility*;
- flash the *Headlights* and other *Visibility Lights* to attract attention where necessary;
• slow to Restricted Speed before each Level Crossing, being prepared to Stop if road or pedestrian traffic is approaching;
• not proceed over the Level Crossing, unless;
  o at an Active Control Level Crossing where equipment is operating;
• slow to Restricted Speed approaching other Rail Traffic where Workers may be present on the ground;
• slow to Restricted Speed approaching pedestrians on or about the Track; and
• slow or Stop as necessary, if the approach of the Rail Traffic is not attracting the appropriate attention.

If the Whistle and Headlights fail and no other Motive Power Unit can be used as the lead unit, Rail Traffic must act in accordance with Rule 4005 Rail Traffic Lights and Markers.

4. REFERENCE

Rule 2003 Handsignals and Verbal Commands
Rule 4005 Rail Traffic Lights and Markers

5. EFFECTIVE DATE

1 November 2015
## CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Disabled Rail Traffic .............................................................................................. 3
   3.1. Disabled Rail Traffic Crew ............................................................................ 3
   3.2. Train Controller ............................................................................................ 4
4. Authorities ............................................................................................................. 4
   4.1. Assisting Rail Traffic to Enter the Section From the Rear ......................... 4
   4.2. Assisting Rail Traffic to Enter the Section From the Advance ................. 4
   4.3. During Pilot Key Working on Single Line Automatic Signalling Sections .... 5
   4.4. Restrain Authorities ...................................................................................... 5
5. Removing Disabled Rail Traffic ............................................................................. 5
   5.1. Coupling to the Disabled Rail Traffic ............................................................ 5
   5.2. Assistance From the Rear and Propelling the Disabled Rail Traffic to the Advance ........................................................................................................... 6
   5.3. Double Line Automatic Signalling ................................................................ 6
      5.3.1. Where Assistance Has Been Provided From the Rear and is to Remove Disabled Rail Traffic to the Rear ................................................................. 6
      5.3.2. Where Assistance Has Been Provided From the Advance and is to Remove the Disabled Rail Traffic to the Advance ............................................. 6
      5.3.3. Where Assistance Has Been Provided From the Advance and is to Remove the Disabled Rail Traffic to the Rear ......................................... 7
   5.4. Single Line Automatic Signalling ................................................................ 7
      5.4.1. Where Assistance Has Been Provided From the Rear and is to Remove the Disabled Rail Traffic to the Rear ..................................................... 7
      5.4.2. Assistance From the Advance and Removing the Disabled Rail Traffic to the Advance ............................................................................. 8
      5.4.3. Where Assistance Has Been Provided From the Advance Station and is to Remove the Disabled Rail Traffic to the Rear ............................. 8
6. Rail Traffic Parted .................................................................................................. 9
7. Rail Traffic Parted and Rail Traffic Crew Unaware ................................................ 9
8. Cancelling Relief Rail Traffic Authority ............................................................... 10
9. Fulfilling a Releif Rail Traffic Authority ............................................................... 10
10. Keeping Records ................................................................................................. 10
11. Reference ............................................................................................................ 10
12. Effective Date ...................................................................................................... 10
1. PURPOSE

The purpose of this rule is to provide instructions to Train Controllers and Rail Traffic Crew for the removal of Disabled Rail Traffic from Running Lines in the Public Transport Authority (PTA) Network.

2. GENERAL

The Train Controller must determine the method of removing the Disabled Rail Traffic. If the normal Proceed Authority permitted by the existing System of Safeworking is not available, and the remedial working cannot be covered by Rule 6013 Passing Fixed Signals at Stop, the Rail Traffic movement must be Authorised using an appropriate Authority.

3. DISABLED RAIL TRAFFIC

3.1. DISABLED RAIL TRAFFIC CREW

The Rail Traffic Crew of the Disabled Rail Traffic must:

- ensure their own safety;
- tell the Train Controller;
  - there is a failure;
  - their Location;
  - the nature of the failure, when this has been determined; and
- if necessary, protect the Disabled Rail Traffic in accordance with Rule 4001 Protecting Rail Traffic.

**WARNING**

An unexpected loss of brake pipe pressure may indicate that Rail Traffic has Derailed or has Derailed and fouled Adjacent lines. Until otherwise confirmed, Rail Traffic Crew must always act on the presumption that Adjacent lines have been fouled.

If the Rail Traffic Crew suspect their Rail Traffic has Obstructed an Adjacent line, they must protect against approaching Rail Traffic in accordance with Rule 4001 Protecting Rail Traffic.
3.2. TRAIN CONTROLLER

The Train Controller responsible for the affected Sections of line must:

- issue Restraint Authority in accordance with Rule 4001 Protecting Rail Traffic; and
- be assured by the Rail Traffic Crew that the Disabled Rail Traffic, if required, has been protected.

4. AUTHORITIES

The Train Controller must:

- advise affected Competent Workers of the intended movement;
- tell the Rail Traffic Crew of the Disabled Rail Traffic about details of assistance to be provided; and
- tell the Rail Traffic Crew of the assisting Rail Traffic about the details of the Disabled Rail Traffic and where the Disabled Rail Traffic is to be taken.

NOTE

The Train Controller must tell the relief Rail Traffic Crew the kilometre Location of the end of the Disabled Rail Traffic in the direction that relief is being provided, and the Protection details.

4.1. ASSISTING RAIL TRAFFIC TO ENTER THE SECTION FROM THE REAR

The Authority for the assisting Rail Traffic to enter the Section from the rear is:

- on double line Automatic Signalling Sections, the normal Proceed Aspect on the Signal, where available, or verbal permission from the Train Controller when the Proceed Aspect is unavailable;
- on single line Automatic Signalling Sections, verbal permission from the Train Controller;
  - a Relief Rail Traffic Authority (RRTA); and
  - if returning to the rear, the Half Pilot Key from that Location.

4.2. ASSISTING RAIL TRAFFIC TO ENTER THE SECTION FROM THE ADVANCE

The Authority for the assisting Rail Traffic to enter the Section from the advance station is:

- on single and double line Automatic Signalling Section, verbal permission from the Train Controller, and an RRTA; and
• on a single line *Automatic Signalling Section*, if returning to the advance station, the Half Pilot Key from that Location.

**NOTE**
During *Pilot Key Working* the Half Pilot Key will not be available at the advance station and is not required.

4.3. **DURING PILOT KEY WORKING ON SINGLE LINE AUTOMATIC SIGNALLING SECTIONS**

Where *Pilot Key Working* is in force and the Disabled Rail Traffic is to be removed to the rear station, the relief Rail Traffic Crew must be in possession of the Pilot Key for that section, in addition to the RRTA.

4.4. **RESTRAINT AUTHORITIES**

Restrain Authorities are issued and cancelled in accordance with Rule 4001 Protecting Rail Traffic.

**NOTE**
When assistance is provided from the rear of disabled Rail Traffic on double line, a Restraint Authority form is not required to be issued to the Rail Traffic Crew of the Disabled Rail Traffic.

5. **REMOVING DISABLED RAIL TRAFFIC**

The assisting Rail Traffic Crew required to remove Disabled Rail Traffic must:

• establish *Effective Communications* with the Disabled Rail Traffic Crew;
• move toward the Disabled Rail Traffic Crew at Restricted Speed and Stop 50 metres from that Rail Traffic;
• be Piloted or Handsignalled to the Disabled Rail Traffic; and
• remove the Disabled Rail Traffic as Authorised by the Train Controller.

5.1. **COUPLING TO THE DISABLED RAIL TRAFFIC**

The Disabled Rail Traffic Crew will by hand or verbally, *Signal* the assisting Rail Traffic Crew to couple to the Disabled Rail Traffic.

The assisting Rail Traffic Crew will advise the Train Controller when ready to move the Disabled Rail Traffic.
5.2. ASSISTANCE FROM THE REAR AND PROPELLING THE DISABLED RAIL TRAFFIC TO THE ADVANCE

The assisting Rail Traffic Crew will ensure the Disabled Rail Traffic Crew are able to assist in the braking and safety of the propelling movement.

Prior to allowing the Disabled Rail Traffic to be propelled, the Disabled Rail Traffic Crew will ensure Effective Communications are established between Rail Traffic Crews and:

- the Train brake is operational from the Motive Power Unit of the Disabled Rail Traffic; or
- the Propelling movement is made in accordance with Rule 4015 Setting Back or Propelling on Running Lines.

5.3. DOUBLE LINE AUTOMATIC SIGNALLING

5.3.1. Where Assistance Has Been Provided From the Rear and is to Remove Disabled Rail Traffic to the Rear

Before permitting the assisting Rail Traffic to remove the Disabled Rail Traffic in the Wrong Running Direction, the Train Controller must:

- ensure no Rail Traffic has entered the Section behind the assisting Rail Traffic;
- place the Signal controlling the entry to the Section at Stop and apply Blocking Facilities; and
- ensure an RRTA has been issued to the Rail Traffic Crew of the assisting Rail Traffic.

The assisting Rail Traffic Crew must:

- before moving to the rear, be in possession of an RRTA;
- return to the rear Location as directed by the Train Controller;
- on arrival at the rear Location, obtain permission from the Train Controller to enter the Location; and
- advise the Train Controller when the Section is Clear.

5.3.2. Where Assistance Has Been Provided From the Advance and is to Remove the Disabled Rail Traffic to the Advance

The Rail Traffic Crew of the assisting Rail Traffic:

- removes the Disabled Rail Traffic as Authorised by the Train Controller; and
- advises the Train Controller when the Section is Clear.
5.3.3. Where Assistance has Been Provided From the Advance and is to Remove the Disabled Rail Traffic to the Rear

Before permitting the assisting Rail Traffic to remove the Disabled Rail Traffic in the Wrong Running Direction, the Train Controller must:

- ensure no Rail Traffic has entered the Section behind the Disabled Rail Traffic;
- place the Signal controlling the entry to the Section at Stop and apply Blocking Facilities; and
- ensure an RRTA has been issued to the Rail Traffic Crew of the assisting Rail Traffic.

The Rail Traffic Crew must:

- before moving to the rear, be in possession of an RRTA;
- on arrival at the rear Location, obtain permission from the Train Controller to enter;
- advise the Train Controller the Section is Clear; and
- ensure the Propelling movement is made in accordance with Rule 4015 Setting Back or Propelling on Running Lines.

NOTE

The Disabled Rail Traffic Crew must assist with the Propelling movement as required.

5.4. Single Line Automatic Signalling

5.4.1. Where Assistance has Been Provided From the Rear and is to Remove the Disabled Rail Traffic to the Rear

Before permitting the assisting Rail Traffic to remove the Disabled Rail Traffic to the rear, the Train Controller must:

- place the Signal controlling the entry to the Section at Stop and apply Blocking Facilities; and
- make sure the assisting Rail Traffic Crew are in possession of the Half Pilot Key from the rear Location.

The assisting Rail Traffic Crew must:

- before moving to the rear station, be in possession of the Half Pilot Key from the rear Location;
- on arrival at the rear Location, with the Disabled Rail Traffic, obtain permission from the Train Controller to enter;
- advise the Train Controller when the Section is Clear; and
- replace the Half Pilot Key.
5.4.2. **Assistance From the Advance and Removing the Disabled Rail Traffic to the Advance**

The assisting Rail Traffic Crew must:
- before removing the Disabled Rail Traffic to the advance station, be in possession of the Half Pilot Key from the advance Location;
- remove the Disabled Rail Traffic as Authorised by the Train Controller;
- advise the Train Controller when the Section is Clear; and
- replace the Half Pilot Key.

5.4.3. **Where Assistance has been Provided From the Advance Station and is to Remove the Disabled Rail Traffic to the Rear**

Before permitting the assisting Rail Traffic to remove the Disabled Rail Traffic to the controlled Location in the rear, the Train Controller must:
- make sure no Rail Traffic has entered the Section behind the Disabled Rail Traffic;
- place the Signal controlling the entry to the Section at Stop and apply Blocking Facilities; and
- ensure the assisting Rail Traffic Crew are in possession of the Half Pilot Key from the rear Location.

The assisting Rail Traffic Crew must:
- before moving to the rear station, be in possession of the Half Pilot Key from the rear Location;
- on arrival at the rear station, obtain permission from the Train Controller to enter;
- advise the Train Controller when the Section is Clear;
- replace the Half Pilot Key; and
- the Propelling movement is made in accordance with Rule 4015 Setting Back or Propelling on Running Lines.
6. **RAIL TRAFFIC PARTED**

Rail Traffic Crews who become aware that their Rail Traffic has Parted must:

- Stop the Rail Traffic; and
- tell the Train Controller about the Parting and, if possible, the Location of the detached vehicles.

**WARNING**

Before stopping the forward portion of Parted Rail Traffic, Rail Traffic Crews must consider the risk of it being struck by the detached portion of the Rail Traffic.

The Train Controller must determine whether the Proceed Authority for the movement back to the detached vehicles:

- is available under the existing system of Safeworking; or
- must be Authorised using an RRTA.

The Rail Traffic Crew must not Set Back the forward portion of the Rail Traffic to the Location of the detached Vehicles unless:

- the detached Vehicles are secured; and
- the Set Back movement is made in accordance with Rule 4015 Setting Back or Propelling on Running Lines.

7. **RAIL TRAFFIC PARTED AND RAIL TRAFFIC CREW UNAWARE**

The Train Controller must, if necessary:

- arrange to locate the detached portions of the Rail Traffic;
- arrange to warn Rail Traffic Crews approaching the affected portions of line;
- arrange to prevent Rail Traffic from approaching the affected portions of line;
- apply Blocking Facilities; and
- arrange for recovery of the detached Vehicles.

Competent Workers who find detached Vehicles must:

- if possible, Secure them, and arrange for their Protection; and
- tell the Train Controller.
8. **CANCELLING A RELIEF RAIL TRAFFIC AUTHORITY**

The RRTA may be cancelled only if the Train Controller is assured that the Authorised movement has not started or has not been completed.

The Train Controller must tell affected Competent Workers that the RRTA has been cancelled.

---

9. **FULFILLING A RELIEF RAIL TRAFFIC AUTHORITY**

The RRTA must be Fulfilled only when the Rail Traffic Crew assures the Train Controller that the Authorised movements have been completed and the Block is Clear.

---

10. **KEEPING RECORDS**

Train Controllers must keep a Permanent Record of:

- the issue of the RRTA; and
- details of affected Competent Workers told about the Authorised movements.

Rail Traffic Crew and other Competent Workers must keep a Permanent Record of the issue of the RRTA.

---

11. **REFERENCE**

Rule 4001 Protecting Rail Traffic
Rule 4015 Setting Back or Propelling on Running Lines
Rule 6003 Blocking Facilities
Rule 6013 Passing Fixed Signals at Stop

---

12. **EFFECTIVE DATE**

22 July 2016
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

4011
STATION LIMITS

4011 Station Limits Rev1.01
Date: 22 July 2016
Page 1 of 6
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Station Limits ......................................................................................................... 3
   3.1. Double Line .................................................................................................. 3
   3.2. Bidirectional Single Line ............................................................................... 5
4. Station working ...................................................................................................... 6
   4.1. Running Lines .............................................................................................. 6
   4.2. Unsignalled Movements ............................................................................... 6
5. Reference .............................................................................................................. 6
6. Effective Date ........................................................................................................ 6
1. PURPOSE

The purpose of this rule is to provide instructions on how Station Limits are defined and how Rail Traffic movements are controlled within Station Limits in the Public Transport Authority (PTA) Network.

2. GENERAL

Station Limits define the limits of Controlled Locations.

If Fixed Signals are not available, Train Controllers must give verbal Authority for movements within Station Limits.

Train Controllers must make sure they do not Authorise conflicting movements.

3. STATION LIMITS

Depending on their availability at a Location, signs or Signals determine arrival end and departure end of Station Limits.

A Station Limit is defined by a:

- specified Controlled Absolute Signal;
- Station Limit sign; or
- limit of Shunt sign.

NOTE

Controlled Absolute Signals are identified by a white reflectorised marker plate located on the centre of the mast, with the Signal Identification Number displayed.

3.1. DOUBLE LINE

Station Limits in Double Line territory are determined by:

<table>
<thead>
<tr>
<th>LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
|       | the first Controlled Absolute Signal at that Location; or
|       | Station Limit sign. |
| To    |
|       |
|       | the last Controlled Absolute Signal at that Location; |
|       | Limit of Shunt sign beyond that Signal; or |
|       | Station Limit sign. |
FIGURE: 3.1 Example of Station Limits in Double Line territory.

A. First Controlled Absolute Signal in arrival direction
B. Station Limit sign beyond the last Controlled Absolute Signal
C. Last Controlled Absolute Signal in the departure direction on each Line
D. Last Controlled Absolute Signal in the departure direction
E. First Controlled Absolute Signal in arrival direction
3.2. **Bidirectional Single Line**

Station Limits in *Bidirectional* single line territory are determined by:

<table>
<thead>
<tr>
<th><strong>LIMIT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
</tr>
<tr>
<td>The first <em>Controlled Absolute Signal</em> at that Location.</td>
</tr>
<tr>
<td>To</td>
</tr>
<tr>
<td>The first <em>Controlled Absolute Signal</em> in the opposing direction, at that Location.</td>
</tr>
</tbody>
</table>

A. First Controlled Absolute Signal - in arrival direction and
The Last Controlled Absolute Signal - in the departure direction

*FIGURE: 3.2 Example of Station Limits in Bidirectional single line territory.*
4. STATION WORKING

4.1. RUNNING LINES

Rail Traffic movements on Running Lines within Station Limits must be Authorised by the Train Controller.

If available, Fixed Signals must be used to Authorise movements. Signals at Stop must be passed only in accordance with Rule 6013 Passing Fixed Signals at Stop.

4.2. UNSIGNALLED MOVEMENTS

Unsignalled movements within Station Limits must not exceed Restricted Speed.

Before Authorising an unsignalled movement that opposes other Rail Traffic, the Train Controller must make sure that at least one unoccupied Block is maintained between the movements.

The Block between the opposing movements must remain unoccupied until one of the approaching Rail Traffic movements is brought to a Stop.

The Train Controller must tell the Rail Traffic Crew involved in the unsignalled movement not to Proceed beyond the relevant Station Limit.

5. REFERENCE

Rule 6013 Passing Fixed Signals at Stop

6. EFFECTIVE DATE

22 July 2016
4015

SETTING BACK OR PROPELLING ON RUNNING LINES
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Authorities ............................................................................................................. 3
   3.1. Setting Back to Attach a Portion of Parted Rail Traffic ................................. 3
   3.2. Setting Back Unable to Proceed in the Normal Direction ............................. 3
       3.2.1. Double Line ................................................................................... 3
       3.2.2. Single Line ..................................................................................... 4
   3.3. Setting Back at Stopping Places ................................................................. 4
4. Assurances ............................................................................................................ 4
   4.1. Authority Details ........................................................................................... 4
5. Conditions for Setting Back or Propelling .............................................................. 5
   5.1. Rail Traffic Crew ........................................................................................... 6
       5.1.1. The Rail Traffic Has Operating Brakes ........................................... 6
       5.1.2. The Rail Traffic Does Not Have Operating Brakes ......................... 6
   5.2. Level Crossings ............................................................................................ 6
6. Reference .............................................................................................................. 6
7. Effective Date ........................................................................................................ 6
1. PURPOSE

The purpose of this rule is to describe how Rail Traffic is managed when it is required to Set Back or Propel on Running Lines in the Public Transport Authority (PTA) Network.

2. GENERAL

Rail Traffic may need to Set Back or Propel if:

- the forward portion of Rail Traffic is Set Back or propelled towards a stationary portion of Rail Traffic;
- a Limit of Authority is overrun;
- it cannot continue in the forward direction;
- a Stopping Place has been partially or completely overrun, and it is necessary to return to the Stopping Place; or
- an unsafe condition is encountered.

3. AUTHORITIES

Signals, if available, must be used to give Proceed Authorities.

3.1. SETTING BACK TO ATTACH A PORTION OF PARTED RAIL TRAFFIC

**WARNING**

An appropriate Authority is required if the rear portion is beyond a Controlled Location.

The verbal Authority of the Train Controller is required before setting back on a Running Line if the forward portion of Rail Traffic is to Set Back towards a stationary portion of the Rail Traffic.

3.2. SETTING BACK – UNABLE TO PROCEED IN THE NORMAL DIRECTION

Rail Traffic may need to be Set Back if it cannot continue in the forward direction.

3.2.1. Double Line

In double line areas the movement back is Authorised by the Train Controller on a Wrong Direction Authority and where possible Signal, indication.
3.2.2. Single Line

In single line areas the movement back is Authorised by the Train Controller where:

- the Rail Traffic Crew is in possession of the Half Pilot Key from the Location to which the Rail Traffic is moving; or
- the Rail Traffic Crew is in sight of a Controlled Absolute Signal which controls entry to the Controlled Location and that Signal is at Proceed.

3.3. Setting Back at Stopping Places

Rail Traffic may need to be Set Back if an overrun of a stopping place occurs.

The verbal Authority of the Train Controller must be obtained to Set Back and a Competent Worker must be in attendance to ensure the move is safe.

4. Assurances

Before Authorising the movement, the Train Controller must:

- ensure the Section of Track into which the movement is to Proceed is Clear of Rail Traffic;
- where available, apply Blocking Facilities; and
- ensure current Work On Track Authority or methods in affected Sections are Fulfilled or worksites are protected.

4.1. Authority Details

An Authority issued to Rail Traffic for a Set Back or Propelling movement must specify the Location to which Travel is Authorised.
5. CONDITIONS FOR SETTING BACK OR PROPELLING

_Rail Traffic_ must _Set Back_ or _Propel_ only:

- if it is not practicable to haul it; and
- as far as the _Authority_ to _Propel_ allows.

Where practicable the _Rail Traffic Crew_ must drive from the leading end of _Rail Traffic._

The _Competent Worker_ directing the _Set Back_ or _Propelling_ movement must:

- closely accompany or precede the leading _Vehicle_; or
- ride in the leading _Vehicle_ in a position designated as safe by the _Operator_ and approved by the PTA.

_Effective Communication_ must be in place between the _Competent Worker_ and the _Rail Traffic Crew_.

Where verbal commands are used to direct _Rail Traffic_ movements, the _Competent Worker_ directing the movement and the _Rail Traffic Crew_, must communicate at agreed intervals.

If communication between the _Rail Traffic Crew_ and the _Competent Worker_ directing the movement is interrupted, the _Rail Traffic Crew_ must Stop the _Rail Traffic_ immediately.
5.1. **RAIL TRAFFIC CREW**

The *Rail Traffic Crew* must:

- must be satisfied that effective precautions are taken to prevent *Vehicles* breaking away;
- ensure that the movement is *Authorised*; and
- make sure that the movement does not exceed its *Limit of Authority*.

**5.1.1. The Rail Traffic Has Operating Brakes**

Where the *Airbrake* connection is continuous throughout the *Rail Traffic Consist* and:

- the leading *Vehicle* is fitted with an operating *Airbrake*;
- there is a *Driver* qualified to operate the *Airbrake*; and
- the *Driver* in the lead *Vehicle* has constant communication with the *Propelling Rail Traffic*; then the *Rail Traffic* can *Travel* at a maximum speed of 80kph.

**5.1.2. The Rail Traffic Does Not Have Operating Brakes**

Where the *Airbrake* connection is not continuous throughout the *Rail Traffic Consist*, and the *Rail Traffic* must *Travel* at *Restricted Speed*.

**5.2. LEVEL CROSSINGS**

At *Active Control Level Crossings*, a setting back or *Propelling* movement must not proceed unless warning equipment is operating or the *Level Crossing* is manually protected.

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**6. REFERENCE**

Nil

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**7. EFFECTIVE DATE**

| 19 February 2016 |
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Stopped Rail Traffic ............................................................................................... 3
4. Inspecting Stopped Rail Traffic ............................................................................. 4
5. Disabled Rail Traffic ............................................................................................. 4
6. Overdue Track Occupancy .................................................................................... 4
7. Reference .............................................................................................................. 5
8. Effective Date ........................................................................................................ 5
1. **PURPOSE**

The purpose of the rule is to provide instructions for dealing with overdue *Occupancy* in the Public Transport Authority (PTA) *Network*.

2. **GENERAL**

Where the agreed or expected reporting, clearance or *Section* running times are exceeded by 15 minutes, the *Train Controller* must act in accordance with *Rule 2029 Responsibilities of Train Controllers* and:

- contact the *Competent Worker* in charge of the *Work on Track* activities; or
- contact the *Rail Traffic Crew*.

If this contact cannot be made, the *Train Controller* must advise the *Track Workers’ or Rail Traffic Crew’s* organisations and alert them to the circumstances.

The requirements of *Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN)* must be observed if the *Train Controller* cannot communicate with the *Rail Traffic Crew* of an overdue *Rail Traffic* movement.

The *Rail Traffic Crew* of overdue movements must act in accordance with *Rule 2027 Responsibilities of Rail Traffic Crew*.

If the *Track Worker’s or Rail Traffic Crew’s* safety cannot be established, the *Train Controller* must initiate the PTA’s *9000-000-011 Emergency Management Manual*.

3. **STOPPED RAIL TRAFFIC**

If *Rail Traffic* is delayed due to an unscheduled Stop the *Rail Traffic Crew* must immediately advise *Train Control* of:

- the *Location* of the stopped *Rail Traffic*;
- the reason why the *Rail Traffic* has stopped; and
- the expected duration of the stoppage.

If a *Rail Traffic* stoppage is or will become extended, the *Rail Traffic Crew* must:

- tell the *Train Controller* the reason why the *Rail Traffic* stoppage is extended;
- if necessary, *Secure the Rail Traffic*; and
- if necessary, provide *Protection* for the *Rail Traffic* in accordance with *Rule 4001 Protecting Rail Traffic*. 
4. **INSPECTING STOPPED RAIL TRAFFIC**

**WARNING**

Where there is a risk of being struck by *Rail Traffic* on *Adjacent* lines, the *Rail Traffic Crew* must arrange to implement safety measures to reduce the risk.

**WARNING**

*Adjacent* lines may be under the control of different *Train Controllers* or *Access Providers*.

If it is necessary to inspect their *Rail Traffic* the *Rail Traffic Crew* must:

- make sure that they are protected against *Rail Traffic* on *Adjacent* lines in accordance with *Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines*; and
- tell the *Train Controller* the result of the inspection.

5. **DISABLED RAIL TRAFFIC**

If the *Rail Traffic Crew* reports overdue *Rail Traffic* as *Disabled*, the *Train Controller* must act in accordance with *Rule 4009 Disabled Rail Traffic*.

6. **OVERDUE TRACK OCCUPANCY**

If a *Work on Track Authority* is overdue, the *Protection Officer (PO)* must tell the *Train Controller*:

- the reason why the *Authority* is overdue; and
- the *Location*, if assistance is required.
7. Reference

Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN)
Rule 2027 Responsibilities of Rail Traffic Crew
Rule 2029 Responsibilities of Train Controllers
Rule 4001 Protecting Rail Traffic
Rule 4009 Disabled Rail Traffic
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines

8. Effective Date

1 November 2018
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

5001
CENTRALISED TRAFFIC CONTROL SYSTEM
# CONTENTS

1. Purpose ................................................................................................................. 3  
2. General.................................................................................................................. 3  
3. Proceed Authorities ............................................................................................... 3  
4. Failure of Control Functions .................................................................................. 4  
5. Reference.............................................................................................................. 4  
6. Effective Date ........................................................................................................ 4
1. PURPOSE

This purpose of this rule is to describe the operation of the Centralised Traffic Control (CTC) used in the Public Transport Authority (PTA) Network.

2. GENERAL

The CTC comprises:
- a Location for the control of Points and Signals;
- Controlled Absolute Signals at the entrance to each Section;
- Controlled Absolute Signals protecting the Route through interlockings;
- Absolute Signals (Intermediate Signals) are placed to divide Sections into multiple Blocks; and
- Track Circuits or Axle Counters.

Sections consist of single or multiple lines that are Unidirectional or Bidirectional.

Interlocking of Track Circuits, Axle Counters, Points and Protecting Signals prevent a Running Signal from displaying a Proceed indication unless:
- the Block beyond the Signal is not occupied;
- there are no conflicting Routes set; and
- the Points are correctly set.

The Train Controller controls the entry of Rail Traffic into Sections and through interlockings.

If the CTC is reported as or is suspected to be faulty or unreliable, a method of Special Working must be used until the CTC has been restored.

3. PROCEED AUTHORITIES

The Authority for Rail Traffic to enter and occupy a Block is:
- a Proceed Signal;
- a verbal Authority; or
- a written Authority.
4. **FAILURE OF CONTROL FUNCTIONS**

If the function to control Points and Signals fails, the Train Controller must instruct the Competent Worker to:

- confirm the setting of Points;
- manually operate the Points as required; and
- manually secure the Points if necessary.

The Rail Traffic Crew must obtain an Authority to pass Signals at Stop in accordance with Rule 6013 Passing Fixed Signals at Stop.

5. **REFERENCE**

Rule 6013 Passing Fixed Signals at Stop

6. **EFFECTIVE DATE**

1 November 2015
5003

HALF PILOT KEYS AND PILOT KEY WORKING
CONTENTS

1. Purpose ................................................................................................................. 3

2. General .................................................................................................................. 3
   2.1. Half Pilot Keys .............................................................................................. 3
   2.2. Lost or Damaged Half Pilot Keys ................................................................. 3

3. Pilot Key Working .................................................................................................. 4
   3.1. Pilot Key ....................................................................................................... 4
   3.2. Competent Worker Available ....................................................................... 5
   3.3. Advising Rail Traffic Crews. ....................................................................... 5

4. Introducing Pilot Key Working ............................................................................... 5
   4.1. Departure Signal Has Failed ........................................................................ 5
   4.2. Departure Signal Will Show a Proceed Indication ........................................ 5
   4.3. Rail Traffic Arrives at the Other End of the Section ..................................... 5
   4.4. Introduction by Road Vehicle ....................................................................... 6
   4.5. Transfer of Pilot Key ..................................................................................... 6

5. Working of Rail Traffic ........................................................................................... 6
   5.1. Assurances .................................................................................................. 6
   5.2. Following Rail Traffic .................................................................................... 6

6. Pilot Key Lost ........................................................................................................ 7

7. Reporting ............................................................................................................... 7

8. Resumption of Normal Working............................................................................. 8

9. Keeping Records ................................................................................................... 8

10. Reference .............................................................................................................. 8

11. Effective Date ....................................................................................................... 8
1. PURPOSE

The purpose of this rule is to detail the protocols for the use of Half Pilot Keys which are provided at each end of a single line Section and work in conjunction with the Departure Signals at the end of the Section where they are located in the Public Transport Authority (PTA) Network.

Half Pilot Keys are used to assist in providing safe separation of Rail Traffic during Signalling failures, Rail Traffic failures and some Work on Track activities.

2. GENERAL

At each end of a single line automatic signalling section, a Half Pilot Key is located adjacent to the Departure Signals.

Half Pilot Keys are engraved with the names of the stations at each end of the Section; the first station shown is the station at which the key belongs.

A Half Pilot Key must not be removed without permission of the Train Controller.

2.1. HALF PILOT KEYS

A Half Pilot Key is housed in a switch. To remove a Half Pilot Key it is turned to "out", then withdrawn.

The Half Pilot Key works in conjunction with the Departure Signals at the end of the Section where it is located. When the Half Pilot Key is withdrawn or not turned to "in" the Departure Signals at that end will remain at Stop.

![Figure 2.1. Male key](image1)

![Figure 2.2. Female key](image2)
2.2. LOST OR DAMAGED HALF PILOT KEYS

In the event of a Half Pilot Key becoming lost or damaged in such a way that it cannot be inserted in the Pilot Key switch:

- the Worker discovering the loss or damage must advise the Train Controller, who will advise the Transperth Train Operations Manager;
- the Transperth Train Operations Manager must make Altered Working arrangements for Rail Traffic until such time as a new Half Pilot Key is obtained, in accordance with Rule 1001 Scope of the Network Rules, Section 2.4; and
- if a lengthy delay is likely to occur before a replacement is obtained, the Transperth Train Operations Manager may Authorise the Maintenance Representative to cut the Half Pilot Key contact out of circuit, to enable working under proper Signal indication.

3. PILOT KEY WORKING

In the event of failure of the Departure Signal controlling the entrance to a single line automatic signalling section, Pilot Key Working is introduced as required.

3.1. PILOT KEY

A Pilot Key consists of two Half Pilot Keys taken from the Pilot Key switches located Adjacent to the Departure Signals at each end of the Section concerned. It is assembled by screwing the two Half Pilot Keys together.

![FIGURE 3.1. Full Pilot Key assembled](image)

Half Pilot Keys are arranged in such a manner that it is not possible to screw them together unless they are from each end of the affected Section.

After screwing the two Half Pilot Keys together, the Competent Worker must:

- examine the Pilot Key to ensure it correctly shows the names of the stations at each end of the affected Section; and
- advise the Train Controller when Pilot Key Working is instituted.

Rail Traffic Crew must not accept a Pilot Key that is not properly screwed together or does not display the Location names applicable to the affected Section.
3.2. **COMPETENT WORKER AVAILABLE**

The *Competent Worker*, if available, may attend the *Location* and work as directed by the *Train Controller* to assist with *Pilot Key Working*.

3.3. **ADVISING RAIL TRAFFIC CREW**

*Rail Traffic Crew* approaching a *Section* where *Pilot Key Working* has been instituted must be given prior notification by:

- the issue of a *Special Notice*; or
- verbal advice from the *Train Controller*.

4. **INTRODUCING PILOT KEY WORKING**

4.1. **DEPARTURE SIGNAL FAILURE**

Where the *Departure Signal* fails, the *Train Controller* must arrange issue of an *Alternative Proceed Authority* (*APA*) for the first *Rail Traffic* to pass the *Departure Signal* at Stop, in accordance with Rule 5019 *Alternative Proceed Authority*.

The *Rail Traffic Crew* must remove the *Half Pilot Key* and take it to the other end of the *Section*.

4.2. **DEPARTURE SIGNAL SHOWING A PROCEED INDICATION**

Where the *Departure Signal* shows a *Proceed* indication, the *Rail Traffic* must pass the *Departure Signal* at *Proceed*, and when passed, the *Rail Traffic Crew* must remove the *Half Pilot Key* and take it to the other end of the *Section*.

4.3. **RAIL TRAFFIC ARRIVAL AT THE OTHER END OF THE SECTION**

On arrival at the other end of the section the *Rail Traffic Crew* must:

- remove the *Half Pilot Key* from that end;
- screw the *Half Pilot Keys* together;
- advise the *Train Controller* that *Pilot Key Working* has been instituted; and
- leave the *Pilot Key* where instructed by the *Train Controller*.

**NOTE**

Where the *Pilot Key* would be at the wrong end of the *Section* after *Pilot Key Working* has been introduced, the *Train Controller* may delay the introduction of *Pilot Key Working* by continuing to issue APAs.
4.4. INTRODUCTION BY ROAD VEHICLE

Where approved by the Transperth Train Operations Manager, Pilot Key Working may be introduced by a road vehicle, provided:

• the state of the Section is known;
• no Rail Traffic is in the affected Section; and
• Rail Traffic at or Closely Approaching the Location has been issued a Restraint Authority.

4.5. TRANSFER OF PILOT KEY

After Pilot Key Working has been introduced the Pilot Key can be transferred from one end of the Section to the other by whatever means available.

The Train Controller will direct the Competent Worker where to take the Pilot Key and where it is to be left.

5. WORKING OF RAIL TRAFFIC

When Pilot Key Working has been introduced and Rail Traffic is Authorised to pass a Departure Signal at Stop by the Train Controller, this Authority applies to the Departure Signal only and if any Intermediate Signals are at Stop they can only be passed as provided in Rule 6013 Passing Fixed Signals at Stop.

5.1. ASSURANCES

Before being Authorised to enter the Section and where Pilot Key Working has been introduced, Rail Traffic Crew must be in possession of the Pilot Key, or Pilot Key Caution Authority form after seeing the Pilot Key.

5.2. FOLLOWING RAIL TRAFFIC

When it is necessary to start two or more Rail Traffic movements from one end of the Section, before Rail Traffic has to be started from the opposite end, the Train Controller must issue the Rail Traffic Crew a Pilot Key Caution Authority form.

Rail Traffic must not be permitted to enter a Section under Pilot Key Working unless the preceding Rail Traffic has passed completely out of:

• the Section; or
• where Permissive Working is permitted, the first Block.
The *Rail Traffic Crew* must not accept a Pilot Key Caution Authority form unless they first sight the *Pilot Key*.

**NOTE**
A Pilot Key Caution Authority form applies to a single journey only, to the other end of the *Section*.

The Pilot Key Caution Authority form must be cancelled when the *Rail Traffic* has arrived *Complete* at the end of the *Section*.

The last *Rail Traffic Crew* which is to pass over the *Section* before a *Rail Traffic* movement has to be started from the other end, must carry the *Pilot Key*.

---

**6. PILOT KEY LOST**

Where a *Pilot Key* is lost, the *Train Controller* must advise the Transperth Train Operations Manager, who must make special arrangements for working of *Rail Traffic*.

If the lost *Pilot Key* is found, the *Train Controller* must be advised, and the *Train Controller* will advise the Transperth Train Operations Manager.

---

**7. REPORTING**

The *Rail Traffic Crew* must advise the *Train Controller* when the *Rail Traffic*:

- enters the affected *Section*; and
- arrives *Complete* at the *Location* at the end of the affected *Section*.
8. RESUMPTION OF NORMAL WORKING

WARNING

Where normal working is to be resumed, Rail Traffic must not be permitted to depart until the Departure Signal is displaying a Proceed indication.

When normal working is to be resumed, the Train Controller must instruct the Rail Traffic Crew or Competent Worker at the Location where Pilot Key Working is to be cancelled, to:

- unscrew the Pilot Key;
- replace the appropriate Half Pilot Key in the Pilot Key switch; and
- then take the other Half Pilot Key to the opposite end of the Section.

After replacing each Half Pilot Key and turning them to "in", the Rail Traffic Crew or Competent Worker must advise the Train Controller.

The Train Controller must test affected Departure Signals when each Half Pilot Key is replaced.

9. KEEPING RECORDS

Train Controllers must keep a Permanent Record of the details of Pilot Key Working.

10. REFERENCE

Rule 1001 Scope of the Network Rules
Rule 5019 Alternative Proceed Authority
Rule 6013 Passing Signals at Stop

11. EFFECTIVE DATE

1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

5019
ALTERNATIVE PROCEED AUTHORITY
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Assurances ............................................................................................................ 3
   3.1. Active Control Level Crossings .................................................................... 4
4. Issuing an Alternative Proceed Authority .............................................................. 4
5. Restraint of Rail Traffic ........................................................................................ 4
6. Reporting ............................................................................................................... 5
7. Authorising a Following Rail Traffic movement ..................................................... 5
8. Cancelling an Alternative Proceed Authority ........................................................ 5
9. Fulfilling an Alternative Proceed Authority ............................................................ 5
10. Returning to Normal Working ............................................................................. 6
11. Keeping Records .................................................................................................. 6
12. Reference .............................................................................................................. 6
13. Effective Date ....................................................................................................... 6
1. **PURPOSE**

The purpose of this rule is to detail the protocols for using *Alternative Proceed Authorities* (APA) in the Public Transport Authority (PTA) Network. These are *Issued* to authorise *Rail Traffic* movements to pass a *Departure Signal* at Stop.

2. **GENERAL**

A written APA will be *Issued* to authorise *Rail Traffic* movements to pass a *Departure Signal* at Stop in single line *Automatic Signalling Sections*.

During APA working, safe separation between *Rail Traffic* movements must be maintained.

Unless entry is *Authorised*, *Rail Traffic* must be *Restrained* from entering the limits of APA working.

An APA must specify:

- the *Limit of Authority* for the movements it *Authorises*;
- the line to be used; and
- where necessary, specify any *Speed Restrictions* that must be applied.

3. **ASSURANCES**

The *Train Controller* must make sure or be assured that:

- conflicting *Occupancy* or *Routes* are not *Authorised*;
- the *Track* within the limits of the APA will be occupied only by *Authorised Rail Traffic*;
- *Effective Communication* is established between:
  - *Rail Traffic Crew*; and
  - affected *Competent Workers*;
- previously *Issued Proceed Authorities* have been *Cancelled* or *Fulfilled*;
- current *Work on Track Authorities* in affected *Sections* are *Fulfilled*, or *Worksites* are protected against movements under the APA;
- other *Competent Workers* known to be affected have been told about the planned movements under the APA;
- the *Route* to be taken by *Rail Traffic* is:
  - set and *Secured*; or
  - will be set and *Secured* by a *Competent Worker*; and
- *Protecting Signals* are at Stop with *Blocking Facilities* applied in accordance with *Rule 6003 Blocking Facilities*. 
Where Blocking Facilities cannot be applied, Rail Traffic must be Restrained in writing on a Restraint Authority.

### 3.1. ACTIVE CONTROL LEVEL CROSSINGS

Where possible the Train Controller must make sure or be assured that Active Control Level Crossings are:

- operating correctly;
- if not operating correctly, attended by Competent Workers; or
- closed to road and pedestrian traffic.

Where unable to obtain or apply these assurances, the Train Controller must advise Rail Traffic Crew to treat Active Control Level Crossings as faulty and act in accordance with Rule 2015 Active Control Level Crossing Management.

### 4. ISSUING AN ALTERNATIVE PROCEED AUTHORITY

The Train Controller Authorises Travel by compiling and issuing an Alternative Proceed Authority Form.

The Train Controller must arrange for an APA to be Issued to the Rail Traffic Crew carrying out the Authorised movements.

If available, Signals within the limits of the APA must be cleared.

Rail Traffic Crew may only pass Signals at Stop:

- if Authorised on the Alternative Proceed Authority Form and with confirmation from Train Control to Proceed; and
- in accordance with Rule 6013 Passing Fixed Signals at Stop.

Rail Traffic Crew must be advised on the Alternative Proceed Authority Form of:

- what is known about the condition of Active Control Level Crossings;
- any Speed Restrictions; and
- any Speed Restrictions that may be applied by the Maintenance Representative because of the fault.

### 5. RESTRAINT OF RAIL TRAFFIC

Rail Traffic must be Restrained from entering a Block in which APA is in effect.

The Restraint Authority must direct Rail Traffic not to depart the Location irrespective of any available Proceed Authority.
6. REPORTING

The **Train Controller** must tell **Rail Traffic Crew** or other **Competent Workers** of the **Locations** at which they are to report entry, progress and exit.

7. AUTHORISING A FOLLOWING RAIL TRAFFIC MOVEMENT

When unoccupied **Blocks** behind **Rail Traffic** travelling on an **APA** are to be released for following **Rail Traffic** movements, the **Train Controller** must tell the **Rail Traffic Crew** to report when the **Rail Traffic** has passed **Complete** beyond nominated **Absolute Signals**.

When told by the **Rail Traffic Crew** that the **Rail Traffic** has passed **Complete** beyond nominated **Absolute Signals**, the **Train Controller** may issue an **APA** for a following **Rail Traffic** movement.

8. CANCELLING AN ALTERNATIVE PROCEED AUTHORITY

An **APA** may be **Cancelled** only if the **Train Controller** is assured that the **Authorised** movement has not started or has not been completed.

The **Train Controller** must tell affected **Competent Workers** that the **APA** has been **Cancelled**.

9. FULFILLING AN ALTERNATIVE PROCEED AUTHORITY

An **APA** must be **Fulfilled** only when the **Rail Traffic Crew** or **Competent Worker** assures the **Train Controller** that the **Authorised** movements have been completed and the **Block** is **Clear**.

The **Train Controller** must tell affected **Competent Workers** that the **APA** has been **Fulfilled**.
10. RETURNING TO NORMAL WORKING

Before normal working is resumed the Train Controller must ensure that:

- any Authority Issued to enter the affected Block is Cancelled or Fulfilled;
- the affected Block is Clear of any Rail Traffic;
- any Active Control Level Crossings in the Section are restored to normal operation;
- Blocking Facilities are removed;
- if required, Points that had been Secured are restored for normal operation; and
- instructions still in effect for the Restraint of Rail Traffic are Cancelled.

11. KEEPING RECORDS

Train Controllers must keep a Permanent Record of:

- the issue of an APA; and
- details of affected Competent Workers told about the Authorised movements.

Rail Traffic Crew and other Competent Workers must keep a Permanent Record of the issue of an APA.

12. REFERENCE

Rule 2015 Active Control Level Crossing Management
Rule 6003 Blocking Facilities
Rule 6013 Passing Fixed Signals at Stop

13. EFFECTIVE DATE

1 November 2018
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

5023
MANUAL
BLOCK WORKING
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Assurances ............................................................................................................ 4
4. Authorising and Reporting ..................................................................................... 4
5. Maintaining Separation ......................................................................................... 4
6. Restraint of Rail Traffic ......................................................................................... 4
7. Active Control Level Crossing ................................................................................ 5
8. Ending Manual Block Working ............................................................................... 5
9. Keeping Records .................................................................................................... 5
10. Reference .............................................................................................................. 5
11. Effective Date ........................................................................................................ 5
1. PURPOSE

The purpose of this rule is to describe how to manually maintain Blocks between Rail Traffic movements in the Public Transport Authority (PTA) Network where the Rail Traffic may not be reliably detected in the Centralised Traffic Control (CTC).

2. GENERAL

The Train Controller uses Manual Block Working to prevent Rail Traffic from entering occupied Blocks.

Manual Block Working is used when:

- it is specified in other Network publications;
- Track Circuits or Axle Counters may not reliably detect Rail Traffic; or
- the Train Controller requires Manual Block Working to be used.

The Authority for entry to a Block is a Proceed Signal indication.

NOTE
Where a Departure Signal is the entry Signal and that Departure Signal fails, an Alternative Proceed Authority will be the Authority for entry to the Block.

Manual Block Working must be used only for Right Running Direction movements.

The limits for Manual Block Working must extend from one Controlled Absolute Signal to another Controlled Absolute Signal.

NOTE
Permissive Block Working is not permitted during Manual Block Working.

An exception to this is where a Road Rail Vehicle (RRV) is authorised to follow Rail Traffic in accordance with Rule 3019 Track Vehicles.

Signals at Stop must not be passed during Manual Block Working unless Authorised by the Train Controller in accordance with Rule 6013 Passing Fixed Signals at Stop.
3. **ASSURANCES**

*Train Controllers* must be assured that:

- the *Block* is *Clear of Rail Traffic* before *Authorising Manual Block Working*;
- only *Rail Traffic* that is *Authorised to Travel* under *Manual Block Working* will enter the *Block*; and
- the *Block* is *Clear of Rail Traffic* before resuming normal operations.

---

4. **AUTHORISING AND REPORTING**

The *Train Controller* must *Authorise* and implement *Manual Block Working*. The *Train Controller* must advise other affected *Train Controllers* that *Rail Traffic* will be worked under *Manual Block Working* conditions.

Where required, the *Rail Traffic Crew* or a *Competent Worker* must report to the *Train Controller*:

- entry to the *Block*; and
- exit from the *Block*.

---

5. **MAINTAINING SEPARATION**

Once *Rail Traffic* enters the *Block*, the *Train Controller* must set the entry-end *Signal* at *Stop*, with *Blocking Facilities* applied in accordance *Rule 6003 Blocking Facilities*.

---

6. **RESTRAINT OF RAIL TRAFFIC**

*Rail Traffic* must be prevented from entering a *Block* in which *Manual Block Working* is *In Effect*, by applying *Blocking Facilities* to *Signals* controlling the entry to the *Manual Block Working* limits.

When it is necessary for *Rail Traffic* to be *Restrained*, the *Train Controller* may provide written advice to *Rail Traffic Crew*.
7. ACTIVE CONTROL LEVEL CROSSING
If Rail Traffic needs to pass over an Active Control Level Crossing operated automatically by Track Circuits, but the Rail Traffic cannot be relied upon to activate the Track Circuits, Rail Traffic Crews must:

- stop short of the Level Crossing, and if possible manually operate the Level Crossing; or
- arrange to stop approaching road and pedestrian traffic.

Rail Traffic may Proceed over the Level Crossing only if it is safe to do so.

8. ENDING MANUAL BLOCK WORKING
The Train Controller must be assured that the Block is Clear of any Rail Traffic before ending Manual Block Working.

9. KEEPING RECORDS
The Train Controller must keep a Permanent Record of the details of Manual Block Working.

10. REFERENCE
Rule 6003 Blocking Facilities
Rule 6013 Passing Fixed Signals at Stop

11. EFFECTIVE DATE
19 February 2016
PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

6001
OVERRUN OF LIMIT OF AUTHORITY
# CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Responding to Overrun of Limit of Authority.......................................................... 3
   3.1. Rail Traffic Crew Responsibilities................................................................ 3
   3.2. Train Controller Responsibilities ............................................................... 3
   3.3. Authority for Movement to Continue............................................................. 4
4. Reference .............................................................................................................. 4
5. Effective Date ........................................................................................................ 4
1. **PURPOSE**

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

2. **GENERAL**

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

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

3. **RESPONDING TO OVERRUN OF LIMIT OF AUTHORITY**

3.1. **RAIL TRAFFIC CREW RESPONSIBILITIES**

Rail Traffic Crew that have overrun a Limit of Authority must immediately take action to prevent a collision with other Rail Traffic by:

- stopping their Rail Traffic;
- if necessary, broadcasting an Emergency radio call; and
- telling the Train Controller.

3.2. **TRAIN CONTROLLER RESPONSIBILITIES**

The Train Controller must:

- arrange to Stop the Rail Traffic that has overrun its Limit of Authority and has not stopped;
- arrange to Stop and prevent other movements that are at risk;
- tell the Electric Control Officer (ECO) if the overrun is into a De-Energised area;
- tell Protection Officers (PO) at affected worksites;
- tell affected Rail Traffic Crew to wait for further instructions;
- determine the method of working to be used to clear Rail Traffic;
- tell the Transperth Train Operations Manager about the overrun of Authority;
- tell the affected Operator’s Representative about the overrun of Authority; and
- tell other affected Train Controllers.
3.3. AUTHORITY FOR MOVEMENT TO CONTINUE

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

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

- a control system fault, the Train Controller may Authorise the movement to continue for Signals other than a Departure Signal.
- Rail Traffic Crew error, the Transperth Train Operations Manager’s approval must be given for the movement to continue.

4. REFERENCE
Rule 4015 Setting Back or Propelling on Running Lines

5. EFFECTIVE DATE
1 November 2015
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Management of Blocking Facilities ........................................................................ 3
   3.1. Temporary Removal ..................................................................................... 3
   3.2. Permanent Removal .................................................................................... 4
4. Keeping Records ................................................................................................... 4
5. Reference .............................................................................................................. 4
6. Effective Date ........................................................................................................ 4
1. PURPOSE

The purpose of this rule is to detail the protocols for using Blocking Facilities in the Public Transport Authority (PTA) Network. These devices are used to prevent the unintended Issue of Occupancy Authorities or the operation of Signals or Point equipment.

2. GENERAL

WARNING

Unless assured by the Train Controller, Competent Workers must not assume that:
- Signals have been set at Stop;
- Points have been correctly set; or
- Blocking Facilities have been applied.

Unless otherwise permitted in the PTA Safeworking Rules and Procedures:
- equipment with Blocking Facilities applied must not be operated; and
- Train Controllers must not issue Occupancy Authorities for Sections that are shown as Blocked out of use on Train Control Diagrams.

3. MANAGEMENT OF BLOCKING FACILITIES

Before applying Blocking Facilities to Signals, Points or Sections of Track, Train Controllers must make sure that any affected Points are set in the correct positions.

3.1. TEMPORARY REMOVAL

Blocking Facilities may be temporarily removed from controls, with the approval of the Competent Worker who requested the application of the Blocking, in order to:
- set a different Route using the same controls;
- after safe arrangements have been made to clear a Signal to permit a movement over the blocked Route; or
- maintain and test the Signalling equipment.

Train Controllers must restore Blocking Facilities as soon as the activity that required their temporary removal has been completed, and confirm that the Blocking has been reapplied with the Competent Worker who requested the Blocking.
3.2. PERMANENT REMOVAL

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

4. KEEPING RECORDS

Train Controllers and the Competent Worker requesting the Blocking must make a Permanent Record of the application and removal of Blocking Facilities.

5. REFERENCE

Nil

6. EFFECTIVE DATE

1 November 2015
CONTENTS

1. Purpose .................................................................................................................. 3
2. General .................................................................................................................... 3
3. Indications of Fixed Signals ................................................................................... 4
  3.1. Stop ................................................................................................................ 4
  3.2. Proceed ........................................................................................................... 4
4. Types of Fixed Signals ............................................................................................ 5
  4.1. Running Signals .............................................................................................. 5
  4.2. Controlled Absolute Signals .......................................................................... 5
    4.2.1. Departure Signals .................................................................................. 5
  4.3. Absolute Signals ............................................................................................. 5
    4.3.1. Intermediate Signals ............................................................................. 5
    4.3.2. Approach Signals .................................................................................. 6
  4.4. Shunting Signals .............................................................................................. 6
5. Changing Signal Indications .................................................................................. 7
  5.1. Responding to a Condition Affecting the Network ........................................ 7
6. Irregular Signal Indications ..................................................................................... 7
7. Out of Service or Non-Commissioned Signals ....................................................... 8
8. Testing Signals ....................................................................................................... 8
9. Signal Indications and Their Meanings ................................................................. 9
10. Three Colour Light Signalling Operation ............................................................ 14
11. Repeater Signals .................................................................................................. 15
12. Reference ............................................................................................................. 15
13. Effective Date ....................................................................................................... 15
1. **PURPOSE**

The purpose of this rule is to identify *Fixed Signals* and the process of *Authorising* and regulating the movement of *Rail Traffic* in the Public Transport Authority (PTA) Network.

---

2. **GENERAL**

*Fixed Signals* are used to:

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

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

*Fixed Signals* must be located:

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

**NOTE**

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

*Fixed Signal* indications are displayed by coloured lights.

*Fixed Signals* may be fitted with marker plates for identification.
3. INDICATIONS OF FIXED SIGNALS

The indications of Fixed Signals are:

| **Clear** indicated by a green light | ![Green Light] |
| **Caution** indicated by a yellow light | ![Yellow Light] |
| **Stop** indicated by a red light | ![Red Light] |

Caution and Clear are Signal Aspects that give Rail Traffic Crew the Authority to Proceed.

3.1. STOP

Rail Traffic must Stop before a Signal displaying a Stop Aspect. Signals may be passed at Stop only in accordance with Rule 6013 Passing Fixed Signals at Stop.

3.2. PROCEED

A Proceed Aspect shows that:
- interlocked Points protected by the Signal are set in the correct position for the movement;
- no conflicting Route has been set; and
- where interlocked, Active Control Level Crossing equipment is operational.

A Proceed Aspect on a running Signal shows that the Block ahead is unoccupied.

A Proceed Aspect on a Shunting Signal does not indicate that the Block ahead is unoccupied.

NOTE
A Proceed Aspect on a Signal proves Route Integrity.
4. TYPES OF FIXED SIGNALS

*Fixed Signals* are of two types:
- Running Signal; and
- Shunting Signal.

4.1. RUNNING SIGNALS

There are two categories of *Running Signals*:
- Controlled Absolute Signal; and
- Absolute Signal.

4.2. CONTROLLED ABSOLUTE SIGNALS

**WARNING**

*Absolute Signals* must not be passed at Stop without the Authority of the *Train Controller*.

A *Controlled Absolute Signal* is:
- Controlled by the *Train Controller* and the passage of *Rail Traffic*; and
- identified by a white reflectorised marker plate located on the centre of the mast, or if there is more than one *Signal* on the same mast, showing a *Signal* number as shown on the diagram of *Signalling*.

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

Some *Controlled Absolute Signals* may be fixed at *Red*.

4.2.1. Departure signals

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

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

4.3. ABSOLUTE SIGNALS

4.3.1. Intermediate signals

*Intermediate Signals* are *Absolute Signals* used to divide the *Section* between *Controlled Locations* to facilitate the movement of following *Rail Traffic* and are:
- controlled only by the passage of *Rail Traffic*; and
identified by a white reflectorised marker plate located diagonally below and to the right of the Signal head and displays the signal number based on the kilometrage, preceded by the letter "D" for Down Signal and "U" for Up Signal.

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

4.3.2. Approach Signals

Approach Signals are Absolute Signals that do not divide the Section. These Signals are identified by a white reflectorised triangle marker plate located diagonally below and to the right of the Signal head, and displays the Signal number based on the kilometrage, preceded by the letter "D" for the Down Signal and "U" for the Up Signal.

The purpose of approach Signals is to provide an indication to Rail Traffic Crew that they are approaching a Controlled Location.

The normal indication of an Approach Signal is Proceed (Caution).

NOTE
Not all Controlled Locations have approach Signals.

4.4. Shunting Signals

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

A Shunting Signal Authorise a movement at Restricted Speed past that Signal.

WARNING
Shunting Signals can be cleared if the line beyond the Signal is occupied. Rail Traffic Crew must proceed as if the line is occupied.

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

• as far as the line ahead is Clear;
• limit of the Shunt sign;
• a set of non-interlocked Points;
• a Signal for the direction of Travel; or
• a shorter distance defined by the Train Controller.
5. CHANGING SIGNAL INDICATIONS

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

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

Additionally, the Train Controller must not activate any Points or Signals, or engage in any activity that is likely to jeopardise the safety of the Rail Traffic.

5.1. RESPONDING TO A CONDITION AFFECTING THE NETWORK

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

The Train Controller must tell the Rail Traffic Crew about the altered Signal Aspect:

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

6. IRREGULAR SIGNAL INDICATIONS

A Fixed Signal indication must be treated as Stop if:

- it is an Illegal Signal Indication;
- there is no indication;
- there is no indication other than the junction or Route Indicator; or
- it is not understood.

Competent Workers must report irregular Signal indications to the Train Controller.

The Train Controller must tell a Signals Maintenance Representative about irregular Signal indications.

The Train Controller must set affected Controlled Signals to Stop with Blocking Facilities applied, and:

- check that these Signals display a Stop indication;
- if the Signals do not display a Stop indication, issue Rail Traffic with a Restraint Authority; and
- Authorise Signals to be passed at Stop only in accordance with Rule 6013 Passing Fixed Signals at Stop.

If Absolute Signals maintain a Stop indication these Signals may be passed at Stop only in accordance with Rule 6013 Passing Fixed Signals at Stop.
If affected Absolute Signals maintain a Clear indication, the Train Controller must implement Rule 5023 Manual Block Working.

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

7. OUT OF SERVICE OR NON-COMMISSIONED SIGNALS

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

These are identified by:
- an obscuring cover over the Signal;
- a white cross affixed to the front of the Signal; or
- where next to a functioning Signal, having the Signal head covered or turned away from the line.

![FIGURE: 7.1 Examples of out of service or non-commissioned Signals]

8. TESTING SIGNALS

A Signal must not be tested if:
- Rail Traffic is Closely Approaching; and
- the testing could change the Signal indication.

If Rail Traffic is standing at a Signal at Stop, the Train Controller must:
before testing the Signal, tell the Rail Traffic Crew that Signal testing is about to commence and that their Rail Traffic movement must not move unless instructed to do so; and

after testing the Signal, tell the Rail Traffic Crew that the testing has been completed and, if required, give a Proceed Authority.

The Train Controller and Competent Worker must make a Permanent Record of the Signal test.

9. SIGNAL INDICATIONS AND THEIR MEANINGS

<table>
<thead>
<tr>
<th>Signal</th>
<th>Controlled Absolute</th>
<th>Absolute Intermediate</th>
<th>Meaning</th>
<th>Required Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image1.png" alt="Signal Image" /></td>
<td><img src="image2.png" alt="Signal Image" /></td>
<td>The Block ahead of the Signal is occupied or for any reason that the Rail Traffic has to be stopped.</td>
<td>Rail Traffic must be stopped before reaching the Signal.</td>
</tr>
<tr>
<td></td>
<td><img src="image3.png" alt="Signal Image" /></td>
<td><img src="image4.png" alt="Signal Image" /></td>
<td>The Block ahead of the Signal is Clear but the next Signal is at Stop.</td>
<td>Rail Traffic to proceed at Normal Speed for the Section and be prepared to stop at the next Signal.</td>
</tr>
<tr>
<td>Signal</td>
<td>Meaning</td>
<td>Required Action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlled Absolute</td>
<td>Absolute Intermediate</td>
<td>The Block ahead of the signal is Clear and the next Signal is either at Caution or Clear.</td>
<td>Proceed at Normal Speed for the Section.</td>
<td></td>
</tr>
<tr>
<td>Signal</td>
<td>Meaning</td>
<td>Required Action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute Approach</td>
<td>The Controlled Absolute Signal ahead is at Stop.</td>
<td>Rail Traffic to Proceed and be prepared to Stop at the next Signal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Yellow Signal" /></td>
<td><img src="image" alt="Caution Triangle" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute Approach</td>
<td>The Controlled Absolute Signal ahead is at Caution or Clear.</td>
<td>Proceed at Normal Speed for the Section.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Green Signal" /></td>
<td><img src="image" alt="Caution Triangle" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal</td>
<td>Type of Signal</td>
<td>Meaning</td>
<td>Action Required</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>---------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>Controlled Absolute Signal with a Single Aspect Shunt Signal on the same mast.</td>
<td>The Block ahead of the Signal is occupied or for any reason the Rail Traffic has to be stopped.</td>
<td>Rail Traffic must be stopped before reaching the Signal.</td>
<td></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>Controlled Absolute Signal with a single Aspect Shunt Signal on the same mast.</td>
<td>The Route is set and the Block ahead of the Signal may be occupied and movements are to be at Restricted Speed.</td>
<td>Rail Traffic to proceed with Caution and be prepared to Stop short of any obstruction.</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**

At some Locations, Running Signals will be at a reduced height due to there being insufficient room to fit a Signal at its normal height.
<table>
<thead>
<tr>
<th>Two Aspect Ground Shunt Signal</th>
<th>Meaning</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Red Signal" /></td>
<td>The <em>Route</em> for the <em>Signal</em> is not set.</td>
<td><em>Rail Traffic</em> must be stopped before reaching the <em>Signal</em>.</td>
</tr>
<tr>
<td><img src="image2" alt="Yellow Signal" /></td>
<td>The <em>Points</em> are set correctly for the <em>Route</em>.</td>
<td><em>Rail Traffic</em> is to proceed at <em>Restricted Speed</em> but be prepared to Stop short of any obstruction.</td>
</tr>
</tbody>
</table>
10. THREE COLOUR LIGHT SIGNALLING OPERATION

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

Signal A will remain at “Stop” until Train No. 2 has passed Clear of the overlap of Signal B.

Signal B displays a “Stop” aspect as Train No. 2 is passing the Signal.

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

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

Signal E will be held at “Stop” by Train No. 1 until has passed Clear of the overlap Track of Signal F.

Signal F displays a “Clear” (green) aspect as there is no Train in the Block in advance of the Signal.
11. REPEATER SIGNALS

Repeater Signals are provided to give Rail Traffic Crew advanced information of the indication of the main Fixed Signal.

Repeater Signals are used where the Fixed Signal that is to be repeated is located in a position where Rail Traffic Crew cannot respond in sufficient time to control Rail Traffic.

12. REFERENCE

Rule 5023 Manual Block Working
Rule 6013 Passing Fixed Signals at Stop

13. EFFECTIVE DATE

19 February 2016
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
   2.1. Appearance .................................................................................................. 3
   2.2. Size .............................................................................................................. 3
   2.3. Orientation .................................................................................................... 3
   2.4. Colour ........................................................................................................... 4
3. Permanent Speed Restriction Signs ................................................................. 5
4. Temporary Speed Restriction Signs ................................................................. 6
5. Permanent Signs ................................................................................................... 7
6. Track Work Signs ................................................................................................. 9
7. Reference ............................................................................................................ 10
8. Effective Date ..................................................................................................... 10
1. **PURPOSE**

The purpose of this rule is to detail how signs are to be used to convey information, such as safety critical instructions, advice and areas of control, in the Public Transport Authority (PTA) Network.

2. **GENERAL**

Signs must be:

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

**NOTE**

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

2.1. **APPEARANCE**

Signs on the PTA Network must be:

- reflective; and
- clearly distinguishable.

**NOTE**

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

2.2. **SIZE**

A sign must be as large as practical to allow clear sighting and interpretation by *Rail Traffic Crew* travelling at *Normal Speed*.

2.3. **ORIENTATION**

Signs must be oriented:

- horizontally wherever possible; or
- vertically, only if clearance between Tracks, or between Track and structures, is limited.
2.4. COLOUR

The background colour of a sign indicates its purpose.

A sign with a background that is mainly:

- red, indicates Stop.
- yellow, conveys a Warning.
- white and blue, conveys information or advice.

NOTE
Warning signs in the PTA Network may have a black background with yellow writing.
3. **PERMANENT SPEED RESTRICTION SIGNS**

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

<table>
<thead>
<tr>
<th>Sign</th>
<th>Name and Description</th>
</tr>
</thead>
</table>
| ![Permanent Speed Restriction Warning Sign](image) | **Permanent Speed Restriction Warning Sign**  
This sign is placed 500 metres from the *Speed Restriction* sign and *Rail Traffic* should *Proceed*, being prepared to bring the *Rail Traffic* under control and *Travel* at the speed shown on the *Speed Restriction* sign. |
| ![Speed Restriction Sign](image) | **Speed Restriction Sign**  
This sign is placed at the beginning of the *Speed Restricted* area.  
*Rail Traffic Crew* must proceed at the speed shown on the *Speed Restriction* sign. |
| ![End of Speed Restriction Sign](image) | **End of Speed Restriction Sign**  
This sign is placed at the end of the area covered by the *Speed Restriction*.  
*Rail Traffic Crew* must return to the *Track Speed*. |
| ![Turnout Speed Restriction Sign](image) | **Turnout Speed Restriction Sign**  
This sign is placed at *Facing Points* and *Trailing Points* to indicate the turnout speed for reverse setting.  
*Rail Traffic Crew* must proceed at the speed shown on the *Speed Restriction* sign until having completely cleared the area covered by the *Speed Restriction*.  
Where no sign is in place, the maximum speed for *Rail Traffic* over the reverse setting is 30 kph. |
4. **TEMPORARY SPEED RESTRICTION SIGNS**

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

<table>
<thead>
<tr>
<th>Sign</th>
<th>Name and Description</th>
</tr>
</thead>
</table>
| ![Temporary Speed Restriction Ahead](image)    | **Temporary Speed Restriction Ahead**  
This sign is placed 1000 metres from a *Temporary Speed Restriction* start sign.  
Placed below the *Temporary Speed Restriction* ahead sign is a *Speed Restriction* sign showing the maximum speed permitted for the restricted area. |
| ![Temporary Speed Restriction Start](image)    | **Temporary Speed Restriction Start**  
This sign is placed 50 metres from the area covered by a *Temporary Speed Restriction*.  
Placed below the *Temporary Speed Restriction* start sign is a *Speed Restriction* sign showing the maximum speed permitted for the restricted area. |
| ![Temporary Speed Restriction End](image)      | **Temporary Speed Restriction End**  
The sign is placed 50 metres past the temporary *Speed Restriction*. |
5. **PERMANENT SIGNS**

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

<table>
<thead>
<tr>
<th>Sign</th>
<th>Name and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Station Distance Sign" /></td>
<td><strong>Station Distance Sign</strong>&lt;br&gt;These signs are placed on the approach to stations providing a distance for the driver to the <em>Stopping Place</em>.</td>
</tr>
<tr>
<td><img src="image2.png" alt="Station Limits Sign" /></td>
<td><strong>Station Limits Sign</strong>&lt;br&gt;<em>Station Limits</em> boards are used to define <em>Station Limits</em> where <em>Fixed Signals</em> are not provided.&lt;br&gt;<em>Rail Traffic Crew</em> must not proceed beyond the <em>Station Limits</em> board until <em>Authorised</em> by the <em>Train Controller</em>.&lt;br&gt;<em>Station Limits</em> boards may be installed on the reverse side of the Limit of Shunt board to define <em>Station Limits</em> for <em>Rail Traffic</em> that is <em>Travelling</em> in the wrong direction.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Limit of Shunt Sign" /></td>
<td><strong>Limit of Shunt Sign</strong>&lt;br&gt;<em>Rail Traffic</em> being <em>Shunted</em> is not to move beyond this sign.</td>
</tr>
<tr>
<td>Sign</td>
<td>Name and Description</td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
</tr>
</tbody>
</table>
| ![Kilometre Pegs](image) | **Kilometre Pegs**  
These signs display the distance from the start *Location* of the line or junction. |
| ![Blue Information Signs](image) | **Blue Information Signs**  
Blue information signs are placed at railcar depots and sidings. These signs provide information or instructions regarding operations at that *Location*. |
| ![Predictor Sign](image) | **Predictor Sign**  
Selected *Level Crossings* are fitted with a Predictor to detect Rail Traffic Approaching the crossing.  
Rail Traffic must not increase speed above the speed they were doing at the time they passed the predictor sign, until the leading vehicle has passed over the *Level Crossing*. |
6. **TRACK WORK SIGNS**

<table>
<thead>
<tr>
<th>Sign</th>
<th>Name and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Track Closed Warning Device" /></td>
<td><strong>Track Closed Warning Device</strong>&lt;br&gt;These signs are used when protecting the outer limits of a Local Possession Authority (LPA) and Track Occupancy Authority (TOA).&lt;br&gt;The Rail Traffic is to Stop before reaching the Track Closed Warning Device.</td>
</tr>
<tr>
<td><img src="image2" alt="Rail Clamped Stop Sign" /></td>
<td><strong>Rail Clamped Stop Sign</strong>&lt;br&gt;These signs are used when protecting the outer limits of an LPA and TOA.&lt;br&gt;The Rail Traffic is to Stop before reaching the Rail Clamped Stop Sign.</td>
</tr>
<tr>
<td><img src="image3" alt="Rail Clamped Worksite Limits Sign" /></td>
<td><strong>Rail Clamped Worksite Limits Sign</strong>&lt;br&gt;These signs are used in a LPA to provided Protection between separated Worksites.</td>
</tr>
</tbody>
</table>
7. REFERENCE
Rule 3025 Temporary Speed Restrictions

8. EFFECTIVE DATE
4 December 2017
PUBLIC TRANSPORT AUTHORITY
SAFEBACKING RULES AND PROCEDURES

6009
INDICATORS
CONTENTS

1. Purpose .................................................................................................................. 3
2. General .................................................................................................................. 3
3. Route Indicators ................................................................................................... 4
4. Junction Indicators .............................................................................................. 5
5. Reference ............................................................................................................. 5
6. Effective Date ....................................................................................................... 5
1. **PURPOSE**

The purpose of this rule is to describe the protocols for using Indicators. They are provided to give Rail Traffic Crew information on the Route setting of Points and may be used in conjunction with Fixed Signals in the Public Transport Authority (PTA) Network.

2. **GENERAL**

**WARNING**

Indicators do not indicate the line ahead is Clear. When used in conjunction with Signals, the Indicator when illuminated does not Authorise the Rail Traffic Crew to pass a Signal at Stop. The Signal must show a Proceed Authority to pass.

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

*Points Indicators* take several forms:
- *Route Indicators*; and
- *Junction Indicators*. 
3. ROUTE INDICATORS

A Route Indicator is mounted above, alongside or below a Controlled Absolute Signal and exhibits indications in conjunction with a Proceed Aspect on that Signal.

When illuminated, Route Indicators display one or two alphanumeric characters, in accordance with the designations assigned to each Route on the diagram of Signalling.

Route Indicators display the characters by means of a matrix of white lights.

Where the Route display is not perfectly displayed or unclear, Rail Traffic Crews may Proceed on the Signal indication and confirm the Route with the Train Controller.

A Route Indicator, when illuminated, does not Authorise the Rail Traffic Crew to pass a Signal at Stop. The Signal must show a Proceed Indication for Authority to pass.

Signals with a Route Indicator attached can only be passed at Stop in accordance with Rule 6013 Passing Fixed Signals at Stop.
4. JUNCTION INDICATORS

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

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

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

A Junction Indicator when illuminated does not Authorise the Rail Traffic Crew to pass a Signal at Stop. The Signal must show a Proceed Indication for Authority to pass it.

Signals with a Junction Indicator attached can only be passed at Stop in accordance with Rule 6013 Passing Fixed Signals at Stop.

5. REFERENCE

Rule 6013 Passing Fixed Signals at Stop

6. EFFECTIVE DATE

1 November 2015
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Stopped at a Fixed Signal ..................................................................................... 4
4. Condition of the Block Ahead ............................................................................. 4
5. Passing a Fixed Signal .......................................................................................... 5
6. Speed of Travel ..................................................................................................... 5
   6.1. Beyond a Fixed Signal ................................................................................. 5
   6.2. Unknown Cause ........................................................................................... 5
   6.3. Known Cause ............................................................................................... 6
7. Within Work On Track Authority Limits ............................................................ 6
8. Keeping Records ................................................................................................... 6
9. Reference .............................................................................................................. 6
10. Effective Date ...................................................................................................... 6
1. PURPOSE

The purpose of this rule is to describe how to manage Rail Traffic when passing a Fixed Signal at Stop in the Public Transport Authority (PTA) Network.

2. GENERAL

The Authority for passing a Fixed Signal at Stop applies to Signals that cannot be cleared for an intended movement.

Rail Traffic must not pass a Fixed Signal at Stop unless Authorised to do so by:

- the Train Controller;
- a Handsignaller acting under the Train Controller's instructions;
- the Possession Protection Officer (PPO) in charge of a Local Possession Authority (LPA); or
- the Protection Officer (PO) in charge of a Track Occupancy Authority (TOA).

Where the Fixed Signal to be passed at Stop is a Departure Signal, the Authority to pass it at Stop must be a:

- written Authority on an Alternative Proceed Authority form, in accordance with Rule 5019 Alternative Proceed Authority;
- written Authority on a Relief Rail Traffic Authority form, in accordance with Rule 4009 Disabled Rail Traffic; or
- written Pilot Key or Pilot Key Caution Authority form during Pilot Key Working, in accordance with Rule 5003 Half Pilot Keys and Pilot Key Working.

Where associated Rail Traffic is to enter the limits of an LPA or TOA past a Departure Signal at Stop, the move must be Authorised by the PPO in charge of a LPA, or the PO in charge of a TOA.
3. **STOPPED AT A FIXED SIGNAL**

The Rail Traffic Crew must speak to the Train Controller if a Signal at Stop does not Clear.

The Rail Traffic Crew must give the Train Controller:

- the Rail Traffic Identification Number, and
- the Signal identification number and Location.

4. **CONDITION OF THE BLOCK AHEAD**

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

The Train Controller must tell the Rail Traffic Crew:

- if the Block is Clear;
- if the Block is occupied if known, the Location of the last Rail Traffic to enter the Block; or
- the Location of any obstructions or failed Infrastructure in the Block.

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

- report the condition of the Block to the Train Controller as soon as practicable; and
- report when the Rail Traffic has exited the Block.

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

- set and Secured; or
- will be set and Secured by a Competent Worker.
5. PASSING A FIXED SIGNAL

The Rail Traffic Crew must obtain the Authority of the Train Controller to pass a Fixed Signal at Stop.

The Train Controller must ensure that any opposing Rail Traffic has been Restrained before Authorising the Rail Traffic Crew to pass a Signal at Stop.

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

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

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

6. SPEED OF TRAVEL

6.1. BEYOND A FIXED SIGNAL

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

6.2. UNKNOWN CAUSE

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

The Rail Traffic movement must Travel at Restricted Speed until the movement has passed the next Fixed Signal displaying a Proceed Indication.
6.3. KNOWN CAUSE

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

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

7. WITHIN WORK ON TRACK AUTHORITY LIMITS

Within the limits of a LPA, the Rail Traffic Crew must get the Authority of the PPO to pass a Fixed Signal at Stop.

Within the limits of a TOA, the Rail Traffic Crew must get the Authority of the PO to pass a Fixed Signal at Stop.

8. KEEPING RECORDS

Train Controllers and, where necessary, Rail Traffic Crew must keep a Permanent Record of the details of a Fixed Signal passed at Stop.

9. REFERENCE

Rule 4009 Disabled Rail Traffic
Rule 5003 Half Pilot Keys and Pilot Key Working
Rule 5019 Alternative Proceed Authority

10. EFFECTIVE DATE

1 November 2015
## CONTENTS

1. **Purpose** ................................................................................................................. 3

2. **General** .................................................................................................................. 3

3. **Fitting a Points Clip** ............................................................................................... 4
   3.1. **Competent Worker** ....................................................................................... 4

4. **Reference** .............................................................................................................. 4

5. **Effective Date** ........................................................................................................ 4
1. PURPOSE

The purpose of this procedure is to explain how Points Clips are used to secure Points in the normal or reverse position in the Public Transport Authority (PTA) Network. They may also be used to Secure expansion joints for Wrong Running Direction movements.

2. GENERAL

Facing Points on Running Lines must be locked. The Points must be clipped if it cannot be assured that the Points will remain in the correct position.

Where possible, a Points Clip must be padlocked. If the Points Clip cannot be padlocked, the Points must be inspected before each Rail Traffic movement.

FIGURE 2.1: Example of a fitted Points Clip
3. FITTING A POINTS CLIP

3.1. COMPETENT WORKER

The Competent Worker must:

- make sure that the work can be done safely;
- get Authority from the Train Controller to clip the Points and an assurance the Points will not be operated;
- make sure that the correct type of Points Clip is used;
- make sure that the Points are in the correct position; and
- fit the Points Clip at the correct position, as close to the toe of the Points blade as possible, for that set of Points.

- Make sure that the Points Clip is fitted;
  - to the underside of the rail;
  - between the sleepers; and
  - with the jaws of the Points Clip to the rails and tightened.
- Where “Swing Nose” Points are in use, make sure the blades are aligned with the main Points and clamped as required.
- Where “K” blades are in use, make sure the “K” blades are aligned with the main Points and clamp the closed “K” blade.
- Where practicable, padlock the Points Clip.
- Make sure that the Points are properly closed and ensure that the Route is correct before allowing Rail Traffic to Travel.

NOTE

In some cases, such as when the connecting rods have been disconnected for maintenance, it may be necessary to clamp all Points blades to ensure the safe passage of Rail Traffic over them.

4. REFERENCE

Nil

5. EFFECTIVE DATE

1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFeworking RULEs AND PROCEDURES

9006
PILOTING
RAIL TRAFFIC
CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Piloting Over Unfamiliar Route ................................................................. 3
4. Piloting Rail Traffic Through Work on Track Authorities .................. 4
   4.1. Rail Traffic Entering a Work on Track Authority ............................ 4
   4.2. Rail Traffic Entering a Worksite ....................................................... 5
   4.3. Rail Traffic Departing the Authority .............................................. 5
5. Keeping Records ............................................................................................... 5
6. Reference .......................................................................................................... 5
7. Effective Date .................................................................................................... 5
1. PURPOSE

The purpose of this procedure is to detail the protocols where Pilots, when required, accompany Rail Traffic Crew to direct Rail Traffic movements in the Public Transport Authority (PTA) Network.

2. GENERAL

WARNING

Rail Traffic Crew are responsible for the safe operation of Piloted Rail Traffic.

A Pilot must be used when the Rail Traffic Crew is unfamiliar with the Route.

A Pilot may be used when Rail Traffic is to Travel through a worksite under a Work on Track Authority, and the rules allow for Rail Traffic entry to the worksite.

The Pilot must:

- confirm with the Train Controller, Possession Protection Officer (PPO) or Protection Officer (PO), as required, when and where to meet the Rail Traffic to be Piloted;
- have knowledge of the Route;
- give clear directions to the Rail Traffic Crew; and
- tell Rail Traffic Crew about operating restrictions and conditions in a timely manner.

3. PILOTING OVER AN UNFAMILIAR ROUTE

To Pilot Rail Traffic over a Route unfamiliar to the Rail Traffic Crew, the Pilot must:

- be Competent in the operation of Rail Traffic over the Route;
- ensure that the Rail Traffic has an Authority to Travel over the Route; and
- ensure that Rail Traffic is operated safely over the Route.
4. PILOTING RAIL TRAFFIC THROUGH WORK ON TRACK AUTHORITIES

The PPO or PO must appoint a Competent Worker to act as the Pilot.

The Pilot must:

- establish and maintain Effective Communication with the Train Controller and the PPO or the PO;
- confirm how entry into and exit from a worksite under a Work on Track Authority will be Authorised;
- confirm with the PPO or PO:
  - the Route to be taken;
  - the Locations of all worksites; and
  - the contact details of all POs within the Work on Track Authority.

4.1. RAIL TRAFFIC ENTERING A WORK ON TRACK AUTHORITY

WARNING

Only Rail Traffic associated with a Local Possession Authority (LPA) or Track Occupancy Authority (TOA) may enter a worksite under the LPA or TOA.

The Pilot must get Authority to enter a worksite under a:

- LPA, from the PPO; or
- TOA, from the PO.

The Pilot must:

- act under the direction of the PPO or PO;
- make sure that Points and Crossovers are set and Secured correctly before Travelling over them; and
- tell the Rail Traffic Crew the Locations of worksites.
4.2. RAIL TRAFFIC ENTERING A WORKSITE

Before making a movement within a worksite under a Work on Track Authority, the Pilot must contact the PPO or PO and get:

- Authority for the movement; and
- an assurance that the intended Route is Clear, and that no conflicting movements have been, or will be, Authorised.

If there is no Competent Worker at the Location of the In-Field Protection, the Pilot must:

- get the Authority of the PPO or PO to remove the Protection;
- remove or arrange to remove the Protection before passing the Location; and
- replace or arrange to replace the Protection after passing the Location.

4.3. RAIL TRAFFIC DEPARTING THE AUTHORITY

The Pilot must get Authority from the Train Controller for Rail Traffic to exit a worksite under a Work on Track Authority.

The Pilot must tell the Train Controller and PPO or PO when the Rail Traffic has exited the worksite under a Work on Track Authority.

5. KEEPING RECORDS

The Train Controller, PPO and PO must make a Permanent Record of relevant details, including the details of entry into and exit from worksites and Work on Track Authorities.

6. REFERENCE

Nil

7. EFFECTIVE DATE

1 November 2015
9010

PROTECTING WORK FROM RAIL TRAFFIC ON ADJACENT LINES
# CONTENTS

1. Purpose ................................................................................................................. 3
2. General.................................................................................................................. 3
3. Means of Risk Reduction ...................................................................................... 3
   3.1. Local Possession Authority .......................................................................... 3
   3.2. Track Occupancy Authority .......................................................................... 3
   3.3. Absolute Signal Blocking .............................................................................. 3
   3.4. Lookout Working .......................................................................................... 3
4. Demarcation Fencing ............................................................................................ 4
5. Using Demarcation Fencing .................................................................................. 4
6. Reference .............................................................................................................. 4
7. Effective Date ........................................................................................................ 4
1. PURPOSE

The purpose of this procedure is to provide instruction on the Protection of Workers from Rail Traffic on Adjacent lines, in the Public Transport Authority (PTA) Network.

2. GENERAL

Rail Traffic on lines Adjacent to Work on Track is a danger to Workers. Workers must be protected from all Rail Traffic.

Excluding Rail Traffic from Adjacent lines gives the highest level of Protection.

WARNING

Adjacent lines may be under the control of a different Train Controller or Access Provider.

During the Safety Assessment for the work, and as Protection needs change, the Possession Protection Officer (PPO) or the Protection Officer (PO) must decide on the best means to reduce the risk from Rail Traffic on Adjacent lines.

3. MEANS OF RISK REDUCTION

If the Safety Assessment indicates that Workers need to be protected from Rail Traffic on Adjacent lines, the PPO or the PO must choose one or more of the following means to reduce the risk.

3.1. LOCAL POSSESSION AUTHORITY

A Local Possession Authority (LPA) may be taken out over Adjacent lines to exclude Rail Traffic.

3.2. TRACK OCCUPANCY AUTHORITY

A Track Occupancy Authority (TOA) may be taken out over Adjacent lines to exclude Rail Traffic.

3.3. ABSOLUTE SIGNAL BLOCKING

Absolute Signal Blocking (ASB) may be used to exclude Rail Traffic on Adjacent lines.

3.4. LOOKOUT WORKING

Lookout Working may be used to provide Warning of approaching Rail Traffic on Adjacent lines.
4. **DEMARCATION FENCING**

**WARNING**

Demarcation Fencing is only a Warning that a boundary exists. It may not stop Workers from entering a Danger Zone on an Adjacent line.

Demarcation Fencing is an easily seen, continuous boundary marker. Demarcation Fencing used within the PTA Network must be of a type approved by the PTA.

5. **USING DEMARCATION FENCING**

The PO must:

- put appropriate Protection or safety measures in place to protect Workers installing Demarcation Fencing;
- make sure that the Demarcation Fencing is installed before starting other work;
- make sure that the Demarcation Fencing can withstand disturbances caused by passing Rail Traffic;
- keep Workers and equipment on the safe side of the Demarcation Fencing;
- if necessary, place Competent Workers to make sure that Workers stay within the Demarcation Fencing;
- make sure that the Demarcation Fencing is kept in good condition throughout the work; and
- make sure that nothing is stacked or placed against the Demarcation Fencing.

6. **REFERENCE**

Rule 3025 Temporary Speed Restrictions

7. **EFFECTIVE DATE**

1 November 2018
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Setting Points ........................................................................................................ 4
   3.1. Indications of Points Setting ......................................................................... 4
   3.2. Restoration of Points .................................................................................... 4
4. Movement over Points ........................................................................................... 5
   4.1. Rail Traffic .................................................................................................... 5
   4.2. Competent Workers ..................................................................................... 5
   4.3. Trailing Points .............................................................................................. 5
5. Damaged Points .................................................................................................... 6
6. Failed Electrically Operated Points ....................................................................... 6
7. Manual operation of Electric Points ...................................................................... 7
   7.1. Train Controller Responsibilities .................................................................. 7
   7.2. Competent Worker Responsibilities ............................................................. 8
   7.3. Responsibilities of the Rail Traffic Crew ....................................................... 8
   7.4. Resumption of Normal Working ................................................................... 8
8. Points Motors ........................................................................................................ 9
   8.1. Type S .......................................................................................................... 9
   8.2. Type Y ........................................................................................................ 10
   8.3. Type W ....................................................................................................... 11
9. Additional Information .......................................................................................... 12
   9.1. Normal or Reverse Indicators .................................................................... 12
   9.2. Swing Nose Crossing ................................................................................. 13
   9.3. K Blades ..................................................................................................... 14
   9.4. Catch Points ............................................................................................... 15
10. Clipping of Points ................................................................................................ 16
11. Keeping Records .................................................................................................. 16
12. Reference ............................................................................................................. 17
13. Effective date ....................................................................................................... 17
1. **PURPOSE**

The purpose of this procedure is to provide instructions for operating and managing Points in the Public Transport Authority (PTA) Network.

2. **GENERAL**

The normal position of Points will be indicated by the Diagram of Signalling in Centralised Traffic Control (CTC).

Points on Running Lines over which Rail Traffic is to pass must be Secured for the safe passage of Rail Traffic.

Points may be operated by electric motors or mechanically by the use of a hand lever.

Electric motor operated Points are remotely operated by the Train Controller.

The different types of motors in use are:

- Type “S”;
- Type “Y”; and
- Type “W”.

Should one or more of the motors fail to operate, or if electronic detection of the Points is lost, an indication will be displayed in Train Control. Signals controlling Routes over Points with no detection will only display a Stop indication.

When a Points failure or loss of detection occurs, the Points may be required to be manually operated by a Crank Handle which is kept in a cabinet close to the electric Points.

Locally operated Points are provided in yards and depots for the setting of Routes for Rail Traffic movements. These Points can be either electrically or mechanically operated by a Competent Worker.
3. SETTING POINTS

3.1. INDICATIONS OF POINTS SETTING

The setting of Points must be communicated to Rail Traffic Crew, by:

- Signal indication;
- Points Indicators;
- direct observation of the Points; or
- other Competent Workers.

Points that are operated by hand must be examined to ensure that the Points are set for the intended Route.

3.2. RESTORATION OF POINTS

WARNING
At approved junctions and other approved Locations, Points may be left set for the last movement. Rail Traffic Crew must be prepared to find the Points incorrectly set at these Locations.

Points and locking mechanisms on Running Lines must be restored to their normal position after use unless otherwise instructed by the Train Controller.
4. MOVEMENT OVER POINTS

**WARNING**

*Points must not be operated while Rail Traffic is moving over or standing on the Points.*

4.1. RAIL TRAFFIC

*Rail Traffic* must remain clear of the *Points* until they are correctly set for the movement.

4.2. COMPETENT WORKERS

*Competent Workers* must stand in a *Safe Place*, well clear of *Points* and operating mechanisms, when *Rail Traffic* is passing over *Points*.

4.3. TRAILING POINTS

*Rail Traffic* must not run through *Trailing Points* that are not correctly set for the movement.

**WARNING**

*Rail Traffic Crews must not Set Back after Points have been run through until the Points have been inspected and declared safe.*

If *Rail Traffic* runs through a set of *Trailing Points*, the *Maintenance Representative* must be advised and:

- the movement must continue in the same direction; and
- the *Points* must be inspected by a *Competent Worker* before another movement is made over them.
5. DAMAGED POINTS

**WARNING**
*Competent Workers* required to inspect or hand operate *Points* must make sure that:
- safety measures are in place before starting work in the *Danger Zone*; and
- there is an easily reached *Safe Place* near the *Points*.

If *Points* are found to be defective or damaged the *Train Controller* must be advised and the *Points* must not be used until:

- the *Points* are inspected by a *Competent Worker* and found safe for the intended movement;
- a *Competent Worker* makes the *Route* safe for the *Rail Traffic* movement by clipping the *Points* in accordance with Procedure 9000 Clipping Points; or
- the *Points* are inspected and repaired by a *Maintenance Representative*.

6. FAILED ELECTRICALLY OPERATED POINTS

If the electrically operated *Points* are unable to be operated correctly, the *Points* must be:

- isolated by the removal of the *Crank Handle*; or
- set and clipped for the intended *Route*, in accordance with Procedure 9000 Clipping Points.
7. **MANUAL OPERATION OF ELECTRIC POINTS**

7.1. **TRAIN CONTROLLER RESPONSIBILITIES**

When *Points* fail or have lost detection the *Train Controller* must:

- make further attempts to operate the *Points* and if they still do not work correctly, arrange for a *Competent Worker* to attend the *Points*;
- advise the *Infrastructure* representative and record on the *Train Control Diagram*:
  - the number of the defective *Points*; and
  - when repairs to the *Points* have been completed.
- electronically lock the *Points*. This will ensure that the *Points* cannot move should the power be reinstated;
- instruct the *Competent Worker* to visually check the *Points* for obstructions. If an obstruction is found, instruct the *Competent Worker* to safely remove the obstruction;
- if no obstruction is found, give *Authority* to remove the *Crank Handle* and manually operate the *Points* into either the Normal or Reverse position;
- Instruct the *Competent Worker* not to replace the *Crank Handle* until *Authorised* to do so;
- when advised by the *Competent Worker* that the *Points* are in the required position, *Authorise* the *Rail Traffic Crew* to pass the relevant *Signal* at Stop in accordance with *Rule 6013 Passing Fixed Signals at Stop*; and
- advise the *Rail Traffic Crew* to ensure that the *Points* are set correctly before travelling over them.
7.2. COMPETENT WORKER RESPONSIBILITIES

**WARNING**
When removing an obstruction from Points mechanisms the Competent Worker must not place hands between or near parts that can move.

The Competent Worker, when instructed to manually Crank Points must:

- have communications equipment and, if necessary, a torch;
- visually check the Points for any obstruction that may be preventing the blades from closing. If an obstruction is found, contact Train Control then safely remove the obstruction;
- If the failure of the Points is not due to an obstruction, the Train Controller will advise which sets of Points are to be cranked, and the position (Normal or Reverse);
- obtain permission from the Train Controller before removing the Crank Handle from the switch in the cabinet;
- not replace the Crank Handle until Rail Traffic has passed completely over the Points, and then only when instructed to do so by the Train Controller;
- ensure all Points with the same number, including Swing Nose Points (frogs) and K Blades, if present, have been cranked to the position nominated by the Train Controller;
- once the Points have been cranked to the required position, check that all the Points are set correctly for the passage of the Rail Traffic; and
- advise Train Control that the Points are set correctly.

7.3. RESPONSIBILITIES OF THE RAIL TRAFFIC CREW

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

7.4. RESUMPTION OF NORMAL WORKING

When normal working is to resume, the Train Controller will instruct the Competent Worker to return the Crank Handle to its switch.

When the Crank Handle has been returned to its switch the Train Controller must be advised.

**NOTE**
Points are to be tested after the Crank Handle is restored to the switch.
8. POINTS MOTORS

8.1. TYPES S

The Competent Worker must:

- insert the voltage cut-off key and turn it clockwise. Turning the voltage cut-off key cuts the power to the machine and moves an internal obstruction arm so that the Crank Handle can be inserted;
- unlock and open the Crank Handle aperture cover and insert the Crank Handle fully;
- wind the Crank Handle until there is an audible “click”, at which point the indicator will show the required position of the Points. (Note: continue to crank even after the blade appears to be flush with the rail);
- check the Points to ensure that they are set correctly then contact Train Control;
- follow the instructions from the Train Controller;
- when the Train Controller advises normal working is to resume, remove the Crank Handle and close and padlock the cover plate;
- turn the voltage cut-off key counter clockwise (to the original position) and remove. Failure to turn the key back to the original position will result in the power to the machine remaining isolated and the Points will not operate electrically;
- return the Crank Handle and voltage cut-off key to the Crank Handle cabinet;
- replace the Crank Handle into the Crank Handle switch; and
- contact Train Control before leaving the area and ensure that the Crank Handle cabinet is locked.

There is an indicator which shows the position of the Points (Normal or Reverse).
8.2. **TYPE Y**

The *Competent Worker* must:

- unlock and open the *Crank Handle* aperture cover by exerting downward pressure on the hasp to release it;
- insert the *Crank Handle* into the motor;
- locate the indicator which shows the position of the *Points*;
- wind the *Crank Handle* until it will go no further and the indicator shows the required position;
- check all the *Points* to ensure that they are set correctly then contact *Train Control*;
- follow the instructions from the *Train Controller*;
- when the *Train Controller* advises normal working is to resume, remove the *Crank Handle*, and replace and padlock the hasp;
- replace the crank handle into the *Crank Handle* switch; and
- contact *Train Control* before leaving the area and ensure that the *Crank Handle* cabinet is locked.

There is an indicator which shows the position of the *Points* (Normal or Reverse).
8.3. **TYPE W**

**WARNING**

Care should be taken when turning the Crank Handle (as instructed below) to ensure that the Competent Workers hands are not damaged by the heads of the bolts in the sleeper. It is recommended that gloves be worn.

The Competent Worker must:

- unlock and open the hinged cover plate on the side of the machine;
- insert the Crank Handle into the circular hole behind the cover plate;
- wind the Crank Handle until there is an audible “click”, at which point the indicator will show the required position of the Points. (Note: continue to crank even after the point where the blade appears to be flush with the rail);
- follow the instructions from the Train Controller;
- when the Train Controller advises normal working is to resume, remove the Crank Handle and then close and padlock the cover plate;
- replace the Crank Handle into the Crank Handle switch; and
- contact Train Control before leaving the area and ensure that the Crank Handle cabinet is locked.

There is an indicator which shows the position of the Points (Normal or Reverse).
9. ADDITIONAL INFORMATION

9.1. NORMAL OR REVERSE INDICATORS

To indicate the Normal and Reverse setting of the Points, metal letters are provided, fixed on the sleeper at the toe of each blade. “N” indicates the Points are set Normal; “R” indicates the Points are set for Reverse.
9.2. SWING NOSE CROSSING

At some turnouts the Points may be provided with Swing Nose Blades (frogs). For this reason it is necessary to thoroughly examine the Points before Rail Traffic is permitted to Travel over them.
9.3. **K Blades**

At some dual gauge turnouts where a conflict of gauge occurs, the *Points* may be provided with K Blades. For this reason it is necessary to thoroughly examine the *Points* before *Rail Traffic* is permitted to *Travel* over them.
9.4. CATCH POINTS

Catch Points are Points placed at depots and Sidings. The purpose of Catch Points is to derail any Vehicle which might run out onto a Running Line and become a danger to Rail Traffic running on that line.

Usually they are a single blade that will lead the Rail Traffic away from the Main Line. These single blades can be controlled by any of the types of Points motors that have been described already in this procedure.

Figure 1: Single Blade Catch Point
Where a *Siding* is placed between the Up and Down Mains and there is insufficient room to use a single blade catch point, then wide to gauge catch *Points* are used which derail the *Train* in the centre.

Each *Points* blade is operated by an electric *Points* motor.

![Diagram of Wide to Gauge Catch Points](image)

*Figure 2: Wide to Gauge Catch Points*

### 10. CLIPPING OF POINTS

If it cannot be assured that the *Facing Points* on *Running Lines* will remain in the correct position, the *Points* are to be clipped in accordance with Procedure 9000 Clipping Points.

### 11. KEEPING RECORDS

The *Train Controller* and the *Maintenance Representative* must keep a Permanent Record of the *Points* failure.
12. REFERENCE
Rule 6013 Passing Fixed Signals at Stop
Procedure 9000 Clipping Points

13. EFFECTIVE DATE
1 November 2015
PUBLIC TRANSPORT AUTHORITY
SAFeworking RULES AND PROCEDURES

9016
WRITTEN AUTHORITIES AND FORMS
CONTENTS

1. Purpose ................................................................................................................. 3
2. General .................................................................................................................. 3
3. Forms Used ........................................................................................................... 3
   3.1. Rail Traffic Authorities .................................................................................. 3
   3.2. Work on Track Authorities and Methods ...................................................... 4
   3.3. Other Safeworking Forms ............................................................................ 4
4. Issuing Authorities ................................................................................................. 4
   4.1. Preparation of an Authority .......................................................................... 4
   4.2. Assurances .................................................................................................. 5
   4.3. Authority Format ........................................................................................... 5
      4.3.1. Blocking ID ..................................................................................... 6
   4.4. Transmission ................................................................................................ 6
   4.5. Error During Transmission ........................................................................... 7
5. Receipt of Authority ............................................................................................... 7
   5.1. Challenging Errors ....................................................................................... 7
   5.2. Error During Receipt .................................................................................... 7
   5.3. Forms Transmitted Electronically ................................................................. 8
   5.4. Read Back of Authorities or Forms ............................................................... 8
   5.5. Error During Read Back ............................................................................... 8
   5.6. Authority in Effect ......................................................................................... 8
6. Fulfilling an Authority ............................................................................................. 9
7. Cancelling an Authority .......................................................................................... 9
8. Reference ............................................................................................................... 9
9. Effective Date ........................................................................................................ 9
1. PURPOSE

The purpose of this procedure is to describe how to compile, Issue, Cancel and Fulfil written Authorities and forms used in the Public Transport Authority (PTA) Network.

2. GENERAL

Written Authorities and forms are used:

- in Systems of Safeworking in certain circumstances; and
- to make sure Safeworking instructions and information is clear, complete and issued in a consistent way.

Rail Traffic Crew and Competent Workers must establish Effective Communication with the Train Controller.

Written Authorities and forms may be:

- transmitted using voice communication and recorded in writing in accordance with Rule 2007 Network Communications; or
- sent electronically.

All Cancelled and Fulfilled written Authorities and forms must be maintained as a Permanent Record.

3. FORMS USED

3.1. RAIL TRAFFIC AUTHORITIES

Authorities and Safeworking instructions are issued to Rail Traffic Crew on one of the following forms:

- Alternative Proceed Authority;
- Pilot Key Caution Authority;
- Relief Rail Traffic Authority;
- Road Rail Vehicle Authority; or
- Restraint Authority.
3.2. Work on Track Authorities and Methods

Authorities and Safeworking instructions are issued to Track Workers on one of the following forms:

- Local Possession Authority (LPA);
- Track Occupancy Authority (TOA);
- Absolute Signal Blocking (ASB); or
- Worksite Protection Planner.

3.3. Other Safeworking Forms

Special Notices are other forms that may be required in relation to Safeworking for Rail Traffic Crew and other Workers.

4. Issuing Authorities

4.1. Preparation of an Authority

Authorities issued by the Train Controller, must:

- be uniquely identified;
- contain only information or instructions essential to the specific task;
- be filled out and recorded in an approved format;
- be filled out and recorded without deletions, alterations, or additions;
- not contain any letters, words or numerals surrounded by circles, brackets or other characters; and
- contain only authorised abbreviations.
4.2. ASSURANCES

Before preparing an Authority, the Train Controller must ensure all information is up to date relating to:

- Rail Traffic identification;
- Authorities currently In Effect;
- the Location of Rail Traffic affected by or having an effect on, the Authority;
- the Location of Worksites affected by or having an effect on the Authority;
- the integrity of the Route;
- Track conditions; and
- any Temporary Speed Restrictions (TSRs) or other Warnings for which advice is required.

4.3. AUTHORITY FORMAT

The following information must be recorded in the spaces provided on the Authority form:

- Authority type;
- date and time of issue;
- identity of Rail Traffic;
- identity of Possession Protection Officer (PPO) or Protection Officer (PO) for which the Authority is intended;
- as required, the leading Motive Power Unit or all Track Vehicle numbers;
- Location names in upper case block letters;
- limits of the Authority;
- name of the Train Controller;
- identity of the recipient of the Authority;
- any other instructions; and
- date and time at which read back is confirmed correct.
4.3.1. **Blocking ID**

Some forms have a field identified as Blocking ID. The Blocking ID is a special number that is provided to ensure that the Blocking Facilities cannot be removed inadvertently.

The Competent Worker requiring the placement of Blocking Facilities will provide a unique Blocking ID number to the Train Controller.

The Blocking ID number is generated by linking:

- the time of the application in Hour/Hour (HH) and Minute/Minute (MM) format;
- the last four digits of the PO’s Track Access permit number; and
- the direction of the track where the blocking will be activated, i.e., U for Up main, D for Down main and UD for both mains.

Example: 13450234UD

The Train Controller must enter the number directly into the Train Control system and is not permitted to record the number in any other manner.

4.4. **TRANSMISSION**

When dictating an Authority, the Train Controller must dictate at a speed that allows the recipient to record it during transmission.

The Train Controller must:

- clearly pronounce all information;
- pronounce each digit individually (e.g. ONE – SIX – TWO);
- spell Location names immediately after they are spoken (e.g. ALPHA, A-L-P-H-A);
  and
- pause if conditions do not allow the transmission to continue clearly.

Voice communications are to be carried out in accordance with Rule 2007 Network Communications.
4.5. ERROR DURING TRANSMISSION

If an error is detected during transmission of the Authority, the Train Controller must:

- cease issuing the Authority;
- write “NOT ISSUED” in upper case block letters with the date, time, name and signature diagonally across the face of the Train Controller’s copy;
- tell the recipient to write “NOT ISSUED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy of the partially prepared form; and
- issue a new Authority.

**NOTE**

Where the system allows it, the new Authority may be issued with the same number as the one marked “NOT ISSUED”.

5. RECEIPT OF AUTHORITY

During transmission the recipient must legibly record:

- the Authority as it is being transmitted;
- Location names in upper case block letters; and
- details as they are being transmitted. The detail must not be recorded from memory, presumption or notes.

5.1. CHALLENGING ERRORS

If an error or inconsistency is identified or suspected during transmission of an Authority, the recipient must:

- challenge the Authority; and
- seek clarification.

5.2. ERROR DURING RECEIPT

If the recipient makes an error during receipt of the Authority the recipient must:

- cease recording the Authority;
- advise the Train Controller that an error has been made;
- when advised to do so, write “NOT ISSUED” in upper case block letters with the date, time, recipients name and signature diagonally across the face of the recipient’s copy of the partially prepared form; and
- prepare to receive another Authority.
5.3. **FORMS TRANSMITTED ELECTRONICALLY**

If an *Authority* or form is delivered electronically, the recipient must make sure that the *Authority* or form is legible and contains no omissions.

5.4. **READ BACK OF AUTHORITIES OR FORMS**

The recipient must read back their copy of the *Authority* or form to the *Train Controller*. The *Train Controller* must:

- during the read back, verify that the *Authority* or form matches the *Authority* or form that has been transmitted;
- underline each word as it is read back; and
- tell the recipient the time at which the read back is confirmed as correct.

5.5. **ERROR DURING READ BACK**

If an error is detected during read back of the *Authority* or form, the *Train Controller* must:

- ask that the *Authority* or form to be read back again; and
- if it is confirmed that the *Authority* or form contains an error:
  - tell the recipient of the error;
  - tell the recipient to write “NOT ISSUED” in upper case block letters with the date, time, recipient’s name and signature diagonally across the face of each copy of the form; and
  - re-issue the *Authority* or form.

5.6. **AUTHORITY IN EFFECT**

An *Authority* is deemed to be *In Effect* at the time of confirmation of the correct read back.

An *Authority* remains *In Effect* until it is:

- *Fulfilled;* or
- *Cancelled.*
6. **FULFILLING AN AUTHORITY**

An Authority is *Fulfilled* after all instructions contained within it, have been carried out.

When an Authority is *Fulfilled*, the Rail Traffic Crew, Possession Protection Officer (PPO) or Protection Officer (PO) must:

- write “FULFILLED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy; and
- advise the *Train Controller* of the time that the Authority was *Fulfilled*.

When an Authority that was manually prepared is *Fulfilled*, the *Train Controller* must write “FULFILLED” in upper case block letters with the date, the time the Authority is *Fulfilled*, and the *Train Controller’s* name and signature diagonally across the face of their copy.

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7. **CANCELLING AN AUTHORITY**

If it is not possible to carry out all of the instructions contained within an Authority, the Authority must be *Cancelled*.

The Authority currently *In Effect* must be *Cancelled* before a replacement Authority containing altered instructions can be issued.

The manner of *Cancellation* and the type of a replacement Authority is determined by the *System of Safeworking* in use.

When an Authority is *Cancelled* the *Train Controller* must:

- tell the recipient to write “CANCELLED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy; and
- if manually prepared, write “CANCELLED” in upper case block letters with the date, time, and *Train Controller’s* name and signature diagonally across the face of the *Train Controller’s* copy.

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8. **REFERENCE**

Rule 2007 Network Communications

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9. **EFFECTIVE DATE**

4 December 2017
# CONTENTS

1. Purpose ................................................................................................................. 3  
2. General.................................................................................................................. 3  
3. Authorisation ......................................................................................................... 3  
4. Protection Officer ................................................................................................... 4  
   4.1. Protection Officer ........................................................................................ 4  
   4.2. Change of Protection Officer ........................................................................ 4  
5. Obtaining a Worksite Access Form ....................................................................... 4  
6. Protection .............................................................................................................. 5  
   6.1. In-Field Protection ....................................................................................... 5  
   6.2. Adjacent Line .............................................................................................. 5  
7. Fulfilling the Worksite Access Form ...................................................................... 5  
8. Keeping Records ................................................................................................... 5  
9. Reference .............................................................................................................. 6  
10. Effective Date ...................................................................................................... 6
1. PURPOSE

The purpose of this procedure is to provide details on the protocols for issuing and using the Worksite Access Form. This procedure is applicable to additional Work Group/s that require access to a Worksite that is already protected by a Work on Track Authority and or Worksite Permit with a designated PO. In addition, this procedure details how an additional Work Group/s are managed and protected by the PO who has the relevant Authority.

2. GENERAL

A Work on Track Authority is an authority that closes a defined portion of Track for a specific period of time. There are circumstances when an additional Work Group/s may require access to the Work on Track Authorities listed below.

- TOA.
- Fixed Worksite within an LPA.

NOTE

Additional Work Group/s must have their own PO who is responsible for managing the Rail Safety component of their work. Lookout Working is not permitted as a method of Protection. The higher level rule that is applied to protect the Worksite must be complied with.

3. AUTHORISATION

The PO in possession of the Work on Track Authority or Worksite Permit will complete and issue the PO supervising the additional Work Group a Worksite Access Form.

Before the Worksite Access Form is issued, the PO issuing the form must ensure that:

- there is no Rail Traffic operating in the Worksite;
- the task being conducted by the additional Work Group does not compromise the safety of the Worksite;
- the additional Work Group is not using any Track Vehicles; and the
- agreed limits on the Worksite Access Form are within the limits of the Worksite.

NOTE

Additional Work Group/s are only permitted to access a Worksite if it has been pre-planned.
4. PROTECTION OFFICER

4.1. PROTECTION OFFICER

The PO receiving the Worksite Access Form must make sure that:

- the Workgroup comply with the arrangements on the Worksite Access Form; and
- are briefed on any known hazards in the Worksite.

**NOTE**

The PO supervising an additional Work Group/s must not manage any Rail Traffic through the Worksite. Only the PO in possession of the Work on Track Authority and or Worksite Permit can perform this duty.

4.2. CHANGE OF PROTECTION OFFICER

If there is a change of PO, either having issued or received the Worksite Access Form, the contact details must be captured on the Worksite Access Form.

The incoming PO must:

- note their contact details on the Worksite Access Form, including;
- the contact details of the new PO in possession of the Work on Track Authority and or Worksite Permit; or
- the contact details of the new PO supervising the additional Work Group.

5. OBTAINING A WORKSITE ACCESS FORM

The PO in possession of the Work on Track Authority and or Worksite Permit issuing the Worksite Access Form and the PO receiving the Worksite Access Form, must confirm and record the following:

- the agreed Working Limits of the additional Work Group/s;
- name and contact details of the PO receiving the Worksite Access Form;
- the PO issuing the Worksite Access Form;
- the limits of the Worksite as per the Work on Track Authority (TOA) or Worksite Permit (LPA); and
- the type of Work on Track Authority.
6. PROTECTION

**WARNING**
Work must not start in the *Danger Zone* until Part A and B of the Worksite Access Form has been completed, repeated back and the agreed *Protection* is in place. The PO in charge of the *Worksite* cannot issue a Worksite Access Form until the *Work on Track Authority* or *Worksite Permit* has been authorised.

6.1. IN-FIELD PROTECTION

*In-Field Protection* will be applied as per Rules 3001 and 3005 by the PO in charge of the *Worksite*.

6.2. ADJACENT LINE

If the *Safety Assessment* indicates that *Workers* need to be protected from *Rail Traffic* on *Adjacent lines*, the PO must arrange for *Adjacent Lines* to be protected in accordance with *Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines*.

The PO may arrange for the speed of *Rail Traffic on Adjacent lines* to be restricted.

7. FULFILLING THE WORKSITE ACCESS FORM

The Worksite Access Form must be *Fulfilled* before the *Work on Track Authority* (TOA) or *Worksite Permit* (LPA) can be *Fulfilled*.

Before *Fulfilling* the Worksite Access Form the PO supervising the additional *Work Group* must:

- Make sure that staff, tools and equipment are outside of the *Danger Zone*.

8. KEEPING RECORDS

*Permanent Records* about the details and changes to the *Worksite Protection* arrangements must be retained by the PO receiving and issuing the Worksite Access Form.
9. REFERENCE

Rule 3005 Track Occupancy Authority
Rule 3001 Local Possession Authority
Rule 1004 Track Access Accreditation
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines

10. EFFECTIVE DATE

22 July 2016
9020

USING STANDING RAIL TRAFFIC FOR PROTECTION
# Contents

1. **Purpose** ....................................................................................................................... 3
2. **General** ......................................................................................................................... 3
3. **Using Rail Traffic to Provide a Safe place** ................................................................. 4  
   3.1. **The Train Controller** ......................................................................................... 4  
   3.2. **Rail Traffic Crew** .............................................................................................. 4  
   3.3. **Protection Officer or Competent Worker** ........................................................ 4  
   3.4. **Extending the Time for Work** ............................................................................ 5  
   3.5. **Departing the Worksite** ..................................................................................... 5  
4. **Using the Rail Traffic for Accessing Worksites** ....................................................... 6  
   4.1. **Rail Traffic Crew** .............................................................................................. 6  
   4.2. **Protection Officer** .............................................................................................. 6  
   4.3. **Departing the Worksite** ..................................................................................... 6  
5. **Communication with Train Control** ......................................................................... 7  
6. **Keeping Records** ......................................................................................................... 7  
7. **Reference** ...................................................................................................................... 7  
8. **Effective Date** ............................................................................................................... 7
1. **PURPOSE**

The purpose of this procedure is to describe how this method is used to provide Protection for Workers or Worksites, or a Safe Place for Workers in the Danger Zone in the Public Transport Authority (PTA) Network. Protection is provided by using Rail Traffic that has been prevented from moving. In addition this method allows Rail Traffic to transport Workers to a Worksite.

2. **GENERAL**

Some areas of the PTA Network are not able to be reached safely and many Locations have no Safe Place for Workers. To enable minor work to be carried out under this method using Rail Traffic to provide a Safe Place may be applied.

Using Rail Traffic to provide Protection should only be done in circumstances where it is not reasonably practicable to use a Protection method as prescribed in Rule 3000 Planning Work in the Rail Corridor.

The Safe Place provided by the Rail Traffic that has been prevented from moving is the Track in advance of the Rail Traffic:

- within the line of sight of the stopped Rail Traffic Crew; and
- where line of sight cannot be achieved, provided the Rail Traffic is Restrained.

**WARNING**

Always ensure that the work group is protected from Rail Traffic on Adjacent lines.

**FIGURE: 2.1: Example of Protection provided by stopped or Restrained Rail Traffic.**
3. USING RAIL TRAFFIC TO PROVIDE A SAFE PLACE

WARNING

Rail Traffic being used to provide a Safe Place must reliably activate Track Circuits or the Rail Traffic Crew must be in possession of the Authority for the Section.

3.1. THE TRAIN CONTROLLER

The Train Controller must:

- give Authority before this method of Protection is used;
- reach agreement with the Protection Officer (PO) or Competent Worker as to the time required to do the work;
- tell the Rail Traffic Crew the Location of the Worksite; and
- advise Rail Traffic on the line, that Workers will be working using Rail Traffic to provide a Safe Place.

The PO may either Travel on the Rail Traffic that is to provide Protection or meet at the Worksite.

3.2. RAIL TRAFFIC CREW

The Rail Traffic Crew must:

- stop as directed by the PO or Competent Worker;
- advise the Train Controller of their arrival at the Worksite;
- place the Train into neutral and ensure the park brake is applied, and
- advise the Train Controller that the Rail Traffic is stopped and Secured against movement.

3.3. PROTECTION OFFICER OR COMPETENT WORKER

WARNING

The Workers must remain on the Track which is Protected by the stationary Rail Traffic. They are not permitted to walk across to the Adjacent line or let equipment or tools to Foul the Adjacent line unless the Workers are Protected in accordance with Procedure 9010 Protecting work from Rail Traffic on Adjacent Lines.

The PO or Competent Worker must place a lockout device on the controller and secure with a padlock before exiting the Train.
3.4. **Extending the Time for Work**

Where the work is likely to overrun the anticipated time, the *Train Controller* must be advised and a decision made to continue, or to make the area safe and finish the work at a later time.

3.5. **Departing the Worksite**

The *PO* or *Competent Worker* must:
- make sure that *Workers* and equipment are clear of the *Track*;
- make sure the *Section of Track* is safe for traffic; and
- tell the *Rail Traffic Crew* that the work is complete and the *Rail Traffic* may be moved.

The *Rail Traffic Crew* must:
- remove the locking device; and
- contact *Train Control* and advise that they are leaving the *Worksite*.

**NOTE**

If work is being carried out beyond a *Platform*, and the positioning of the *Rail Traffic* would mean that the *Rail Traffic* is partially *Platformed*, then the whole of the *Rail Traffic* is to remain at the *Platform*. 
4. **Using the Rail Traffic for Accessing Worksites**

4.1. **Rail Traffic Crew**

The Rail Traffic Crew must:

- stop as directed by the PO;
- take action to ensure the Rail Traffic does not move; and
- advise the Train Controller on arrival at the Worksites.

The Rail Traffic Crew can depart the Worksites only after receiving a Handsignal from the PO.

4.2. **Protection Officer**

Where a Maintainer is working alone, that Maintainer must be the PO.

The PO must:

- when ready, complete a radio check with Train Control; and
- give an ALL CLEAR Handsignal to the Rail Traffic Crew.

The PO must agree with the Train Controller on the time to be picked up if the communications fail.

The PO must not move from the Safe Place until the nominated Rail Traffic has stopped to take them from the Worksite.

4.3. **Departing the Worksites**

Once work has been completed, the PO must contact Train Control and advise that the work is complete.

Train Control must arrange for the PO to be picked up by the next available Rail Traffic.

The Rail Traffic Crew picking up the PO from the Worksites must stop as directed by the PO.

Once the PO is on the Rail Traffic, the Rail Traffic Crew must contact Train Control and advise that they are leaving the Worksites, and the Train Controller must make a notation on the Train Control Diagram.
5. COMMUNICATION WITH TRAIN CONTROL

The PO must contact Train Control and give the following details:

- their name;
- their Track Access Permit number;
- the type of work that is going to be carried out;
- the Location of the work; and
- the anticipated time to complete the task.

6. KEEPING RECORDS

The Train Controller and the PO must make a Permanent Record of the Protection arrangements.

7. REFERENCE

Rule 3000 Planning Work in the Rail Corridor
Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines

8. EFFECTIVE DATE

1 November 2018
I N T E N T I O N A L L Y  B L A N K
<table>
<thead>
<tr>
<th><strong>A</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absolute Block</strong></td>
</tr>
<tr>
<td><strong>Absolute Signal</strong></td>
</tr>
<tr>
<td><strong>Absolute Signal Blocking (ASB)</strong></td>
</tr>
<tr>
<td><strong>Access</strong></td>
</tr>
<tr>
<td><strong>Access Provider</strong></td>
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<tr>
<td><strong>Access Road</strong></td>
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<tr>
<td><strong>Access User</strong></td>
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<tr>
<td><strong>Accredited Worker</strong></td>
</tr>
<tr>
<td><strong>Active Control Level Crossing</strong></td>
</tr>
<tr>
<td><strong>Adjacent</strong></td>
</tr>
<tr>
<td><strong>Adjoining</strong></td>
</tr>
<tr>
<td><strong>Advertise / Advertised</strong></td>
</tr>
<tr>
<td><strong>Affected Signal</strong></td>
</tr>
<tr>
<td><strong>Airbrake</strong></td>
</tr>
<tr>
<td><strong>Altered Working</strong></td>
</tr>
<tr>
<td><strong>Alternative Proceed Authority (APA)</strong></td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>Arc Infrastructure Train Order</strong></td>
</tr>
<tr>
<td><strong>Aspect</strong></td>
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<tr>
<td><strong>Associated Rail Traffic</strong></td>
</tr>
<tr>
<td><strong>Attended Location</strong></td>
</tr>
<tr>
<td><strong>Audible Warning Device</strong></td>
</tr>
<tr>
<td><strong>Australian Network Rules and Procedures (ANRP)</strong></td>
</tr>
<tr>
<td><strong>Authorise / Authorises</strong></td>
</tr>
<tr>
<td><strong>Authorised Investigator</strong></td>
</tr>
<tr>
<td><strong>Authorised Person (AP)</strong></td>
</tr>
<tr>
<td><strong>Authorising</strong></td>
</tr>
<tr>
<td><strong>Authority / Authorities</strong></td>
</tr>
<tr>
<td><strong>Automatic Signalling Section</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td><strong>Automatic Train Protection (ATP)</strong></td>
</tr>
<tr>
<td><strong>Axle Counters</strong></td>
</tr>
<tr>
<td><strong>Bidirectional</strong></td>
</tr>
<tr>
<td><strong>Block</strong></td>
</tr>
<tr>
<td><strong>Blocking</strong></td>
</tr>
<tr>
<td><strong>Blocking Facility</strong></td>
</tr>
<tr>
<td><strong>Block Working</strong></td>
</tr>
<tr>
<td><strong>Bond</strong></td>
</tr>
<tr>
<td><strong>Cancel / Cancelled / Cancellation</strong></td>
</tr>
<tr>
<td><strong>Catch Points</strong></td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td><strong>Catenary Wire</strong></td>
</tr>
<tr>
<td><strong>Caution (Aspect)</strong></td>
</tr>
<tr>
<td><strong>Caution (Handsignal)</strong></td>
</tr>
<tr>
<td><strong>Centralised Traffic Control (CTC)</strong></td>
</tr>
</tbody>
</table>
| **Certify / Certified** | To classify a Worker as Competent.  
To classify Infrastructure or Rollingstock as Fit for Purpose. |
| **Circuit Breaker** | A switch suitable for opening a Circuit automatically, as a result of predetermined fault conditions or by some form of external control. |
| **Circuits / Circuited** | An arrangement of Conductors and electrical apparatus connected to a source of electricity supply. |
| **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. |
<p>| <strong>Clear / Cleared</strong> | In reference to a Track Circuit, Block, section or Signal route, the absence of Rail Traffic. |
| <strong>Clear Aspect</strong> | A Proceed Indication displayed by a Signal. |
| <strong>Closely Approaching</strong> | Going towards a Location at a speed such that Rail Traffic Crews could not be expected to react in sufficient time to Stop. |
| <strong>Commission</strong> | To formally place into active service or use. |
| <strong>Communication Device</strong> | A device that supports Effective Communication. |
| <strong>Competent</strong> | Having the ability, skill and certification to carry out a relevant task. |</p>
<table>
<thead>
<tr>
<th><strong>Competent Worker</strong></th>
<th>A Worker Certified as Competent to carry out the relevant task.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complete</strong></td>
<td>Rail Traffic where the Consist has not parted.</td>
</tr>
<tr>
<td><strong>Condition Affecting the Network (CAN)</strong></td>
<td>A situation or condition that affects or has potential to affect the safety of the Network.</td>
</tr>
<tr>
<td><strong>Conductor</strong></td>
<td>A substance which permits the flow of Current.</td>
</tr>
<tr>
<td><strong>Consist</strong></td>
<td>Refer Train Consist.</td>
</tr>
<tr>
<td><strong>Contact Wire</strong></td>
<td>The bare solid Conductor, being the lower of the two overhead wires mounted directly above the Track centreline. The Pantographs of electric Trains press against the underside of this wire and collect the Current required by the Train.</td>
</tr>
<tr>
<td><strong>Catenenary Wire</strong></td>
<td>A bare solid Conductor (Contact Wire) installed in lieu of Catenary Wire at stations, below an overbridge and at Level Crossings.</td>
</tr>
<tr>
<td><strong>Controlled Absolute Signal</strong></td>
<td>A Signal that is controlled or operated by a Train Controller or a Competent Worker. The Signal must not be passed at Stop without Authority. Some of these Signals are fixed at Red.</td>
</tr>
<tr>
<td><strong>Controlled Location</strong></td>
<td>A Location where a Train Controller controls the Signalling and Safeworking operations either on-site or remotely.</td>
</tr>
<tr>
<td><strong>Controlled Signal</strong></td>
<td>A Signal that is, or may be, controlled or operated by a Train Controller or Competent Worker.</td>
</tr>
<tr>
<td><strong>Controlled Speed</strong></td>
<td>A speed that allows Rail Traffic to Stop short of an obstruction within half the distance of clear line that is visible ahead.</td>
</tr>
<tr>
<td><strong>Converging</strong></td>
<td>Lines meeting and joining to become one line.</td>
</tr>
<tr>
<td><strong>Convoy</strong></td>
<td>A group of Track Vehicles not coupled but travelling closely together under a single Occupancy Authority.</td>
</tr>
<tr>
<td><strong>Crank Handle</strong></td>
<td>A device used for the manual control of Points. Includes ESML handle, Manual Points Control Mechanism and handthrow point lever.</td>
</tr>
<tr>
<td><strong>Cross</strong></td>
<td>To go past other Rail Traffic Travelling in the opposite direction.</td>
</tr>
<tr>
<td>Crossing Location</td>
<td>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.</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Crossover</td>
<td>A portion of line that is used to divert Rail Traffic from one continuing line to another.</td>
</tr>
<tr>
<td>Current</td>
<td>The flow of electricity.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td></td>
</tr>
<tr>
<td>Dangerous Goods</td>
<td>Materials defined under the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code ©).</td>
</tr>
<tr>
<td>Danger Zone</td>
<td>Everywhere within three (3) metres horizontally from the nearest rail and any distance above or below this three (3) metres, unless a Safe Place exists or has been created.</td>
</tr>
<tr>
<td>De-Energisation</td>
<td>To De-Energise Overhead Line Equipment. Refer De-Energise.</td>
</tr>
<tr>
<td>De-Energise / De-Energised</td>
<td>The status of Overhead Line Equipment once Circuit Breakers and/or Isolators feeding a section have been opened. No earths are applied and no Permit to Work Issued. The three (3) and one (1) metre rules per this document shall apply as appropriate.</td>
</tr>
<tr>
<td>Delegate</td>
<td>A Competent Worker Authorised and designated to act in place of another.</td>
</tr>
<tr>
<td>Demarcation Fencing</td>
<td>Easily-seen, continuous Worksite safety boundary markers approved by the Access Provider.</td>
</tr>
<tr>
<td>Departure Signal</td>
<td>The Signal controlling the entrance to a Single Line Automatic Section.</td>
</tr>
<tr>
<td>Derail Device</td>
<td>A device intended to guide the wheels of Rail Traffic off rails.</td>
</tr>
<tr>
<td>Derailment</td>
<td>An incident in which one or more wheel sets run off the Track.</td>
</tr>
<tr>
<td>Designated Earthing Point (DEP)</td>
<td>A designated point at which the Overhead Line Equipment may be Earthed. Locations are identified by a yellow sign with black lettering positioned on the structure.</td>
</tr>
<tr>
<td><strong>Diagram of Signalling</strong></td>
<td>The Diagram of Signalling is a document provided and updated by the Signalling Engineering Manager. This document provides a linear map of the Track showing Signals and other associated equipment.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Disabled</strong></td>
<td>Unable to Travel due to a defect.</td>
</tr>
<tr>
<td><strong>Disabled Rail Traffic</strong></td>
<td>Rail Traffic that is unable to Travel due to a defect.</td>
</tr>
<tr>
<td><strong>Double Line Block (DLB) Territory</strong></td>
<td>The portions of line where the Double Line Block System of Safeworking is used.</td>
</tr>
<tr>
<td><strong>Double Line Working</strong></td>
<td>The working of Rail Traffic over separate Unidirectional lines for Up and Down movements.</td>
</tr>
<tr>
<td><strong>Down Main</strong></td>
<td>On the Fremantle Line, the Main Line traveling away from Fremantle. On all of the Lines, the Main Line traveling away from the City.</td>
</tr>
<tr>
<td><strong>Driver</strong></td>
<td>A Competent Worker controlling the movement of Rail Traffic.</td>
</tr>
<tr>
<td><strong>Driver Supervisory System</strong></td>
<td>A system fitted to a vehicle that can monitor the Driver (or Train) condition or performance and apply the Train brakes when a measured condition or performance parameter violates a required state or limit.</td>
</tr>
<tr>
<td><strong>Dual Gauge Track</strong></td>
<td>Track that allows Rail Traffic of different gauges to transit using a common rail.</td>
</tr>
<tr>
<td><strong>Earthed</strong></td>
<td>A Circuit is Earthed when it is connected to Traction Earth by a Conductor.</td>
</tr>
<tr>
<td><strong>Earthing</strong></td>
<td>Refer Earthed.</td>
</tr>
<tr>
<td><strong>Earthing Conductor</strong></td>
<td>A Conductor for connecting Electrical Equipment to earth.</td>
</tr>
<tr>
<td><strong>Earth Wire</strong></td>
<td>A Conductor electrically connecting together the steelwork of two or more structures and in turn connected to the Traction Earth system.</td>
</tr>
<tr>
<td><strong>Effective Communication</strong></td>
<td>The ability to successfully send, receive and understand information. The communication does not need to be continuous.</td>
</tr>
<tr>
<td><strong>Electrical Engineering Manager (EEM)</strong></td>
<td>The Branch Manager that leads overheads, electrical services and traction power within the Network and Infrastructure Division.</td>
</tr>
<tr>
<td><strong>Electrical Equipment</strong></td>
<td>Any apparatus which is used for the generation, transmission, distribution, control or utilisation of electricity.</td>
</tr>
<tr>
<td><strong>Electrical Infrastructure</strong></td>
<td>Equipment and systems for supplying and distributing electricity for traction purposes. Wires, cables, and Electrical Equipment associated with low-voltage electrical switch rooms, Signalling and Substations.</td>
</tr>
<tr>
<td><strong>Electrical Representative</strong></td>
<td>A person with the appropriate delegated authority and electrical engineering competence to make judgments about electrical safety.</td>
</tr>
<tr>
<td><strong>Electrical Safety Instructions</strong></td>
<td>Instructions provided by the Access Provider’s Electrical Maintenance Representatives for work on or near Electrical Infrastructure.</td>
</tr>
<tr>
<td><strong>Electrical Safety Observer</strong></td>
<td>A person who oversees the safety of other personnel working in the Electrified Area. This person shall have passed the Electrification Safety and Awareness Course and hold the equivalent competence of a Person Responsible for Electrification Safety (PRES).</td>
</tr>
<tr>
<td><strong>Electrical Section</strong></td>
<td>A length of Overhead Line Equipment which can be De-Energised by operating Circuit Breakers in a Feeder Station and / or Track Sectioning Cabin.</td>
</tr>
<tr>
<td><strong>Electric Control Officer (ECO)</strong></td>
<td>The person having control of the power supply to the electric traction system and who is responsible for all switching operations and isolations of electrical traction system.</td>
</tr>
<tr>
<td><strong>Electric Multiple Unit (EMU)</strong></td>
<td>An electric Train Consist.</td>
</tr>
<tr>
<td><strong>Electrified Area</strong></td>
<td>The area generally within the reserve of the electrified railway and any traction substation, Feeder Station and Track Sectioning Cabin.</td>
</tr>
<tr>
<td><strong>Electronic Book On System</strong></td>
<td>PTA’s electronic system which records Competent Workers booking on and off the Rail Corridor.</td>
</tr>
<tr>
<td><strong>Emergency</strong></td>
<td>Incident requiring urgent action. The incident might involve death or serious injury, health or safety effects, significant damage to property or Infrastructure.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Emergency De-Energisation</td>
<td>A De-Energisation of part or the whole of the overhead traction system, no isolators are opened and no Permit to Work is issued. Personnel may approach as close as one (1) metre from normally LIVE Overhead Line Equipment.</td>
</tr>
<tr>
<td>End-of-Train Marker</td>
<td>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.</td>
</tr>
<tr>
<td>End-of-Train Monitor</td>
<td>A device secured to the coupler of the last vehicle which communicates via radio link to the Locomotive and provides real time end-of-Train air pressure and other related information.</td>
</tr>
<tr>
<td>Exclusion Zone</td>
<td>An Exclusion Zone is a Location in the Danger Zone where work cannot be performed under Lookout Working.</td>
</tr>
<tr>
<td>Exclusive Occupancy</td>
<td>Sole occupancy of Track within defined limits.</td>
</tr>
<tr>
<td>Exemption Certificate</td>
<td>Refer Track Access Exemption Certificate.</td>
</tr>
<tr>
<td>Facing Points</td>
<td>Points with the switch blades facing approaching Rail Traffic.</td>
</tr>
<tr>
<td>Feeder</td>
<td>A transmission line Conductor or cable in the electrical power distribution system.</td>
</tr>
<tr>
<td>Feeder Station</td>
<td>A building containing Electrical Equipment to which traction power supplies from a Substation are brought, and from which the Overhead Line Equipment is fed.</td>
</tr>
<tr>
<td>Fit for Purpose</td>
<td>Able to be used for the function required.</td>
</tr>
<tr>
<td>Fixed Signal</td>
<td>A Signal that is located permanently near the line.</td>
</tr>
<tr>
<td>Fixed Worksite</td>
<td>A Worksite with boundaries that are fixed and defined for the duration of the work.</td>
</tr>
<tr>
<td>Foul</td>
<td>In a position to obstruct Rail Traffic on Adjacent lines.</td>
</tr>
<tr>
<td>Fulfil / Fulfilled / Fulfilling</td>
<td>To complete the instructions on, and associated activities, for an Occupancy Authority.</td>
</tr>
</tbody>
</table>
### G

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Exemption</td>
<td>An authority issued by the General Manager of Network and Infrastructure to allow Non-Accredited Workers to work in the Rail Corridor.</td>
</tr>
<tr>
<td>Ground Shunt Signal</td>
<td>A shunting signal mounted at ground level.</td>
</tr>
</tbody>
</table>

### H

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half Pilot Key</td>
<td>A device provided at each end of a single line Centralised Traffic Control (CTC) section and work in conjunction with the Departure Signals at the end of the section where they are located.</td>
</tr>
<tr>
<td>Handbrake</td>
<td>A device to secure a rail vehicle against movement.</td>
</tr>
<tr>
<td>Handsignal / Handsignalled</td>
<td>A Signal given by hand movements, with or without flags or lights.</td>
</tr>
<tr>
<td>Handsignaller</td>
<td>A Competent Worker who gives Handsignals to Rail Traffic Crew.</td>
</tr>
<tr>
<td>Haul</td>
<td>To move Rail Traffic using a motive power source at the leading end.</td>
</tr>
<tr>
<td>Hazard Light</td>
<td>Amber or orange flashing light fitted to a vehicle to provide Warning.</td>
</tr>
<tr>
<td>Headlight</td>
<td>White or blue lights fitted at the front of Rail Traffic to provide visibility for the Rail Traffic Crew and to improve the visibility of Rail Traffic.</td>
</tr>
<tr>
<td>Hertz</td>
<td>The frequency of the supply in cycles per second.</td>
</tr>
</tbody>
</table>

### I

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegal Signal Indication</td>
<td>A Signal indication that is inconsistent with the Signal Aspects and indications used in the Network, or the indications of Adjoining Signals and the known condition of the line, or what is known about Occupancy of the line.</td>
</tr>
<tr>
<td><strong>Incident Controller</strong></td>
<td>The person designated by the relevant Controlling Agency, responsible for the overall management and control of an incident within an incident area and the tasking of agencies in accordance with the needs of the situation.</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>In Effect</strong></td>
<td>Activate, become current, in force.</td>
</tr>
<tr>
<td><strong>In-Field Protection</strong></td>
<td>One or more devices approved by the PTA that provide warning to protect Rail Traffic Crew and Workers. The device or devices may be used in conjunction with Signalling or Blocking Facilities: * Rail Clamped Worksite Limits Signs; or * Rail Clamped Stop Sign.</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td>Refer Civil Infrastructure; Electrical Infrastructure; Signalling and Communications Infrastructure.</td>
</tr>
<tr>
<td><strong>Infrastructure Control Officer (ICO)</strong></td>
<td>A person who monitors and controls the status of operational assets and coordinates the response to Infrastructure faults and incidents.</td>
</tr>
<tr>
<td><strong>Instruction Sign</strong></td>
<td>A sign near or fixed to a Signal, bearing directions to Rail Traffic Crews.</td>
</tr>
<tr>
<td><strong>Interlock</strong></td>
<td>Interaction of equipment controlling Points and/or Signals to prevent conflicting movements, and to make sure routes are set correctly.</td>
</tr>
<tr>
<td><strong>Interlocking Area</strong></td>
<td>An area equipped with Interlocked Points and/or Signals.</td>
</tr>
<tr>
<td><strong>Interlocking Machine</strong></td>
<td>Equipment used to operate or control Interlocked Points and Signals.</td>
</tr>
<tr>
<td><strong>Intermediate</strong></td>
<td>Between two others.</td>
</tr>
<tr>
<td><strong>Intermediate Signal</strong></td>
<td>An Intermediate Signal is a Fixed Signal used to divide a section to facilitate the movement of following Rail Traffic.</td>
</tr>
<tr>
<td><strong>Isolated</strong></td>
<td>The status when Overhead Line Equipment is disconnected and separated from all sources of electricity supply in such a way that this disconnection and separation is secure. Isolated equipment is not safe to touch until a Permit to Work has been Issued, or in an Emergency situation safeguards laid down in this document have been complied with.</td>
</tr>
<tr>
<td><strong>Isolating</strong></td>
<td><strong>Refer Isolated.</strong></td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Isolator</strong></td>
<td>An offload switching device which in the open position provides a visible break and isolating distance appropriate for the voltage.</td>
</tr>
<tr>
<td><strong>Issue / Issued</strong></td>
<td>To give or send copies of Authorities, Warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.</td>
</tr>
</tbody>
</table>

**J**

<table>
<thead>
<tr>
<th><strong>Joint Occupancy</strong></th>
<th>Simultaneous Occupancy of Track within defined limits.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jumper Cable</strong></td>
<td>A length of Conductor provided with clamps for use as a temporary electrical connection to bridge across a gap, such as in a pipe or cable sheath.</td>
</tr>
<tr>
<td><strong>Junction Indicator</strong></td>
<td>An indicator provided at a junction Signal to inform the Driver which way a junction is set, by means of a line of white lights.</td>
</tr>
</tbody>
</table>

**L**

<table>
<thead>
<tr>
<th><strong>Level Crossing</strong></th>
<th>A Location where the railway line and a road or pedestrian walkway cross paths on the same level.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light, Battery Powered Tool or Device</strong></td>
<td>An internally powered tool or device that can be easily carried by one person and can be immediately removed from the Track.</td>
</tr>
<tr>
<td><strong>Light, Non-powered Hand Tool</strong></td>
<td>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 internal combustion engine.</td>
</tr>
<tr>
<td><strong>Light, Powered Hand Tool</strong></td>
<td>An internally powered tool that can be carried easily by one person, without mechanical assistance.</td>
</tr>
<tr>
<td><strong>Limit of Authority</strong></td>
<td>The limit may be defined by a sign, a Signal capable of displaying a Stop indication, or a specific kilometre point on a line. It defines the Location to which Rail Traffic may travel under a Proceed Authority or the limits of a Work on Track Authority.</td>
</tr>
<tr>
<td><strong>Live</strong></td>
<td>(LIVE or Energised) – This term applies to Electrical Equipment when a potential difference (voltage) exists between it and earth. DANGEROUS TO ENCROACH ON STATED CLEARANCES.</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Local Earth</strong></td>
<td>Portable appliance for establishing electrical connection between De-Energised Overhead Line Equipment and Traction Earth.</td>
</tr>
<tr>
<td><strong>Local Possession Authority (LPA)</strong></td>
<td>An Authority that closes a defined portion of Track for a specified period.</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>A place in the Network with a designated name, identification number, or Signalling reference.</td>
</tr>
<tr>
<td><strong>Locomotive</strong></td>
<td>Self-propelled, non-passenger-carrying railway vehicles used for Hauling other (typically freight or passenger) Rollingstock.</td>
</tr>
<tr>
<td><strong>Lookout</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Lookout Working</strong></td>
<td>A safety measure used by Competent Workers to carry out Work on Track without a formally Issued Work on Track Authority.</td>
</tr>
<tr>
<td><strong>Low Visibility</strong></td>
<td>Any condition that does not allow Competent Workers to view the distance required to work safely.</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Main Line</strong></td>
<td>The Running Line normally used for running Rail Traffic through and between Locations.</td>
</tr>
<tr>
<td><strong>Maintenance Representative</strong></td>
<td>An Authorised Access Provider’s employee or an organisation contracted to the Access Provider, responsible for maintaining Network infrastructure.</td>
</tr>
<tr>
<td><strong>Maintenance Vehicle</strong></td>
<td>Refer Track Vehicle.</td>
</tr>
<tr>
<td><strong>Major Incident</strong></td>
<td>An incident assessed by the Access Provider or delegate as having a potentially major impact on the Network, human life, property or the environment.</td>
</tr>
<tr>
<td><strong>Manual Block Working</strong></td>
<td>A method of working, which ensures sole occupancy by manually maintaining the Block for Rail Traffic movements.</td>
</tr>
<tr>
<td><strong>Marker Light</strong></td>
<td>Lights which indicate the front or rear of a Train.</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td><strong>Motive Power Unit</strong></td>
<td>A rail vehicle used to provide the power to move itself or other vehicles.</td>
</tr>
</tbody>
</table>

### N

<table>
<thead>
<tr>
<th><strong>National Standard for Health Assessment of Rail Safety Workers</strong></th>
<th>The National Standard provides practical guidance for Rail Transport Operators to meet rail safety legislative requirements by managing the risks posed by the ill health of rail safety Workers. The National Standard sets out how the health of rail safety Workers is to be assessed. Assessments are to be based on a risk analysis of rail safety tasks and the best available medical evidence.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network</strong></td>
<td>A combination of Track and other Infrastructure controlled by an Access Provider.</td>
</tr>
<tr>
<td><strong>Network Access Level Crossing</strong></td>
<td>Generally permanent Level Crossings provided at Authorised Locations for Network maintenance.</td>
</tr>
<tr>
<td><strong>Network Notice</strong></td>
<td>A notice issued by an Access Provider which contains Safeworking information for Workers.</td>
</tr>
<tr>
<td><strong>Night</strong></td>
<td>For the purpose of working, night is between the hours of sunset and sunrise.</td>
</tr>
<tr>
<td><strong>Nominated Person (NP)</strong></td>
<td>A person who has been appointed in writing by the Electrical Engineering Manager (EEM) to Issue and Cancel Permits to Work for particular equipment and is responsible to carry out electrical switching according to procedures in conjunction with the Electric Control Officer. The Nominated Person also Issues Vicinity Forms.</td>
</tr>
<tr>
<td><strong>Non-Accredited Worker</strong></td>
<td>A Worker who does not hold a Track Access Permit.</td>
</tr>
<tr>
<td><strong>Normal Speed</strong></td>
<td>A speed that does not exceed the speed limit currently In Effect for the Location and type of Rail Traffic.</td>
</tr>
</tbody>
</table>

### O

<p>| <strong>Obstruct / Obstructed</strong>                                    | To make a line unsafe for the passage of Rail Traffic. |
| <strong>Occupancy</strong>                                                | Presence of Rail Traffic or Track Workers on Track. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupancy Authority</td>
<td>A formal Authority that allows Occupancy of a portion of line by Rail Traffic or for Work on Track.</td>
</tr>
<tr>
<td>Open-Channel</td>
<td>A system that allows all radio users to take part in all conversations.</td>
</tr>
<tr>
<td>Open Circuit</td>
<td>The condition applying when a Circuit is incomplete, as by the opening of a switch, or by the omission of a connection in the Circuit, thus preventing Current from flowing.</td>
</tr>
<tr>
<td>Operator</td>
<td>An organisation that manages operates or maintains Rail Traffic on a Network.</td>
</tr>
<tr>
<td>Operator’s Representative</td>
<td>A person authorised by an Operator to act on their behalf.</td>
</tr>
<tr>
<td>Overhead Line Equipment (OLE)</td>
<td>An arrangement of Conductors, suspended over or Adjacent to the railway line, for supplying electricity to electric Trains, together with the associated foundations, structures, fittings, insulators and other attachments by means of which the Conductors are suspended or registered in position.</td>
</tr>
<tr>
<td>Overhead Supply</td>
<td>The supply of electric Current to the overhead wiring system for traction purposes.</td>
</tr>
<tr>
<td>Pantograph</td>
<td>A retractable frame, mounted on insulators on the roof of an electric Train, which presses against the underside of the Contact Wire and through which the Current is collected from the OLE.</td>
</tr>
<tr>
<td>Parting / Parted</td>
<td>Rail Traffic has or is becoming uncoupled en route (also known as dividing in some Networks).</td>
</tr>
<tr>
<td>Permanent Record</td>
<td>A record made in writing or in an electronic system, and kept for reference and audit.</td>
</tr>
<tr>
<td>Permanent Way</td>
<td>The system of earthworks, drainage, structures, and Track Work (but excluding Signalling and communications systems) completed to the required clearance, grade and alignment in readiness for traffic.</td>
</tr>
<tr>
<td>Permissive Block Working</td>
<td>A system whereby two or more Trains Travelling in the same direction and spaced a Block apart, may consecutively enter a Block section of single line on Signal indication.</td>
</tr>
<tr>
<td><strong>Permissive Signal</strong></td>
<td>A Fixed Signal that is normally controlled by the passage of Rail Traffic and its normal indication is a Proceed Authority.</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Permissive Working</strong></td>
<td>A system whereby Rail Traffic Travelling in the same direction may enter a single line on a Signal indication and are permitted to Proceed at Restricted Speed to the preceding Train or next Stop indication.</td>
</tr>
<tr>
<td><strong>Permit to Work</strong></td>
<td>A form of declaration signed and issued by a Nominated Person to a Person Responsible for Electrification Safety to be carried out on or near to Electrical Equipment. The purpose of the form is to make known to the recipient exactly which equipment is Isolated and Earthed, and upon which, or near to which, it is safe for the work to commence only so far as the Electrical Equipment is concerned.</td>
</tr>
<tr>
<td><strong>Person Responsible for Electrification Safety (PRES)</strong></td>
<td>This person ensures the Work Group comply with all of the appropriate clauses of Safeworking Rule 2017 Working Around Electrical Infrastructure for the activity being undertaken. The PRES accepts on behalf of the Work Group any Traction Distribution System Permit to Work or Vicinity Form Issued. Also the PRES converses with the ECO and Train Controller about issues relating to working in Electrified Area.</td>
</tr>
<tr>
<td><strong>Pilot / Piloted</strong></td>
<td>A Competent Worker, who accompanies, directs and advises Rail Traffic Crews; or To direct or guide Rail Traffic Crews and tell them about local conditions and operating restrictions on Running Lines and at Worksites.</td>
</tr>
<tr>
<td><strong>Pilot Key</strong></td>
<td>A Pilot Key consists of two Half Pilot Keys taken from the Pilot Key switches located Adjacent to the Departure Signals at each end of the section concerned. It is assembled by screwing the two Half Pilot Keys together.</td>
</tr>
<tr>
<td><strong>Pilot Key Working</strong></td>
<td>Pilot Key working is a system of working to permit Train operations when a Departure Signal has failed and cannot be repaired in a short time frame.</td>
</tr>
<tr>
<td><strong>Planned Work</strong></td>
<td>Work that is planned and endorsed by the MRIA with a Works Program Number.</td>
</tr>
<tr>
<td><strong>Platform / Platformed</strong></td>
<td>A raised or level area, next to the line, that allows people to enter and leave Trains.</td>
</tr>
<tr>
<td><strong>Points</strong></td>
<td>A Track component consisting of paired pieces of tapered rail that can be moved and set to allow Tracks to diverge or converge.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Points Clip</strong></td>
<td>A lockable clip for manually securing a point switch to the stock rail.</td>
</tr>
<tr>
<td><strong>Points Identification Number</strong></td>
<td>A number that identifies a set of Points.</td>
</tr>
<tr>
<td><strong>Points Indicator</strong></td>
<td>An indicator showing the position of Points.</td>
</tr>
<tr>
<td><strong>Points Securing Device</strong></td>
<td>A device approved by Access Providers used to prevent movement of Points from the required position.</td>
</tr>
<tr>
<td><strong>Possession Protection Officer (PPO)</strong></td>
<td>The Competent Worker responsible for coordinating Protection of Worksites under a Local Possession Authority.</td>
</tr>
<tr>
<td><strong>Proceed</strong></td>
<td>To advance or to carry on.</td>
</tr>
<tr>
<td><strong>Proceed Aspect</strong></td>
<td>Caution (yellow) or Clear (green) Aspects on a Signal that gives the Rail Traffic Crew the authority to Proceed.</td>
</tr>
<tr>
<td><strong>Proceed Authority</strong></td>
<td>An Authority that allows Rail Traffic to enter and occupy a portion of line and Proceed in the forward direction.</td>
</tr>
<tr>
<td><strong>Proceed Indication</strong></td>
<td>Refer Proceed Aspect.</td>
</tr>
<tr>
<td><strong>Proceed Restricted Authority (PRA)</strong></td>
<td>An Authority for Rail Traffic to move in the forward direction at Restricted Speed to enter the limits of a preceding Rail Traffic movement or a Track obstruction.</td>
</tr>
<tr>
<td><strong>Propel</strong></td>
<td>To push Rail Traffic away from the controlling Locomotive or Motive Power Unit.</td>
</tr>
<tr>
<td><strong>Propelling</strong></td>
<td>Refer Propel.</td>
</tr>
<tr>
<td><strong>Protecting Signal</strong></td>
<td>For a Worksite: A Controlled Absolute Signal that is held and maintained at Stop to prevent Rail Traffic entry into a Worksite. For Rail Traffic: An Absolute Signal that protects Rail Traffic from conflicting movements or entering an obstructed section.</td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td>The means used to prevent Rail Traffic from entering a Worksite or other portion of Track, or to prevent road or pedestrian traffic entering a Level Crossing.</td>
</tr>
<tr>
<td><strong>Protection Officer (PO)</strong></td>
<td>The Competent Worker responsible for managing the rail safety component of Worksite Protection.</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td><strong>Rail Bond</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Rail Clamped Stop Sign</strong></td>
<td>A device approved by the Public Transport Authority that provides Warning to protect Workers. Used when working under a Local Possession Authority or Track Occupation Authority.</td>
</tr>
<tr>
<td><strong>Rail Corridor</strong></td>
<td>The land on which a railway is built; comprising all property between property fences, or from the nearest rail in each direction for the distance specified by the Access Provider.</td>
</tr>
<tr>
<td><strong>Rail Industry Safety Standards Board (RISSB)</strong></td>
<td>Responsible for the development and management of rail industry standards, rules, codes of practice and guidelines, all of which have national application.</td>
</tr>
</tbody>
</table>
| **Rail Infrastructure Manager** | In relation to rail Infrastructure of a railway, means the person who has effective control and management of the rail Infrastructure, whether or not the person:  
  - owns the rail Infrastructure; or  
  - has a statutory or contractual right to use the rail Infrastructure or to control, or provide, Access to it. |
| **Rail Traffic** | Trains and Track Vehicle or Vehicles Travelling on the Network. |
| **Rail Traffic Consist** | Refer **Train Consist**. |
| **Rail Traffic Crew** | Competent Workers responsible for the operation of Rail Traffic. |
| **Rail Traffic Identification Number** | The unique identifying number of Rail Traffic. |
| **Rail Traffic Integrity** | The requirements that must be met for Rail Traffic to be deemed to be Fit for Purpose and able to enter and Travel in the Network. |
| **Rail Traffic Whistle** | Refer **Whistle**. |
| **Rail Transport Operator** | Means a:  
  - Rail Infrastructure Manager;  
  - Rollingstock Operator; or  
  - person who is both a Rail Infrastructure Manager and a Rollingstock Operator. |
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeater Signals</td>
<td>A Signal provided at some Locations to give Rail Traffic Crew better information about the indication of the next Signal.</td>
</tr>
<tr>
<td>Restrain / Restrained</td>
<td>To prevent movement of Rail Traffic with Signals, Signalling equipment, Blocking facilities, or the Issue of a written Warning.</td>
</tr>
<tr>
<td>Restraint Authority</td>
<td>The Restraint Authority directs Rail Traffic not to depart the Location irrespective of any available Proceed Authority.</td>
</tr>
<tr>
<td>Restricted Access</td>
<td>Access granted to a person or persons to carry out works in the Electrified Area without an Isolation and under certain restrictions imposed by the EEM or his/her nominated representatives.</td>
</tr>
<tr>
<td>Restricted Speed</td>
<td>Restricted speed is a speed that allows Rail Traffic to Stop short of an obstruction within half the distance of Clear Track that is visible ahead. Restricted Speed must not exceed 25 km/h.</td>
</tr>
<tr>
<td>Return Conductor</td>
<td>A Conductor attached to the OLE structure that carries Traction Return Current.</td>
</tr>
<tr>
<td>Right Running Direction</td>
<td>The normal direction of Travel on Unidirectional lines.</td>
</tr>
<tr>
<td>Road Rail Vehicle Authority</td>
<td>A form Issued by the Train Controller to permit a Road Rail Vehicle to Travel.</td>
</tr>
<tr>
<td>Roll-By Inspection</td>
<td>A visual inspection of moving Rail Traffic to identify equipment, loading security or other defects or failure.</td>
</tr>
<tr>
<td>Rollingstock</td>
<td>Any vehicle that operates on, or intends to operate on, or uses a railway Track, including any loading on such a vehicle, but excluding a vehicle designed for both on-and off-Track use when not operating on the Track. Rollingstock is a collective term for a large range of rail vehicles of various types, including Locomotives, freight wagons, passenger cars, Track machines and Road-Rail Vehicles.</td>
</tr>
<tr>
<td>Rollingstock Standards</td>
<td>Access Providers’ specified requirements for Locomotives, vehicles and Track Vehicles to operate on the Network.</td>
</tr>
<tr>
<td>Route</td>
<td>The path from one Limit of Authority to the next in the direction of Travel.</td>
</tr>
<tr>
<td><strong>Route Indicator</strong></td>
<td>A Route indicator that conveys its information by illuminated alphanumeric characters.</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Route Integrity</strong></td>
<td>The requirements that must be met for a Route to be deemed to be Fit for Purpose.</td>
</tr>
<tr>
<td><strong>Running Direction</strong></td>
<td>Refer Right Running Direction; Wrong Running Direction.</td>
</tr>
<tr>
<td><strong>Running Line</strong></td>
<td>A line (other than a Siding) that is used for Through-Movement of Rail Traffic.</td>
</tr>
<tr>
<td><strong>Running Signal</strong></td>
<td>A Fixed Signal placed near a Running Line to Authorise and control running movements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Safe Braking Distance</strong></th>
<th>A distance indicated to Rail Traffic that would allow Rail Traffic to Stop with the application of normal service braking.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safe Distance</strong></td>
<td>A distance between Workers and equipment and exposed electrical wires and equipment that an Access Provider deems as safe.</td>
</tr>
</tbody>
</table>
| **Safe Place**            | A place where Workers and equipment cannot be struck by Rail Traffic.  
A Safe Place is:  
- at least three (3) metres clearance between the Worker and the nearest Running Line;  
- behind a structure or barrier erected to provide Protection;  
- behind a designated safety line; or  
- a place created following the use of a rule that stops Rail Traffic. |
<p>| <strong>Safety Assessment</strong>     | An assessment process used to identify hazards for all work planned for the Rail Corridor and its potential to intrude on the Danger Zone. |
| <strong>Safeworking</strong>           | Safeworking is an integrated system of operating procedures and engineering for the safe operations of Trains and the protection of people and property on or in the vicinity of the railway. |
| <strong>Safeworking Rules and Procedures</strong> | Refer to Safeworking. |</p>
<table>
<thead>
<tr>
<th><strong>Section</strong></th>
<th><strong>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.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secure / Secured</strong></td>
<td><strong>To place and keep something in a known or prepared place or position to safeguard it against accidental or Unauthorised Access or movement.</strong></td>
</tr>
<tr>
<td><strong>Set Back</strong></td>
<td><strong>To move in the reverse direction to that provided in the current Proceed Authority.</strong></td>
</tr>
<tr>
<td><strong>Shunt</strong></td>
<td><strong>To move Rail Traffic, rakes of Vehicles, or Vehicles on lines for purposes other than Through-Movement.</strong></td>
</tr>
<tr>
<td><strong>Shunting / Shunting Operation</strong></td>
<td><strong>The process of moving Rail Traffic, rakes of Vehicles, or Vehicles on lines for purposes other than Through-Movement.</strong></td>
</tr>
<tr>
<td><strong>Siding</strong></td>
<td><strong>A portion of Track where Vehicles can be placed Clear of the Running Lines. Refer also Intermediate Siding.</strong></td>
</tr>
<tr>
<td><strong>Sighting Distance</strong></td>
<td><strong>The distance that someone can clearly see along the Track. When applying Lookout Working the Sighting Distance must be determine using an appropriate measuring tool.</strong></td>
</tr>
<tr>
<td><strong>Signal</strong></td>
<td><strong>A mechanical or electrical device erected beside a rail line to advise Rail Traffic Crew of the state of the line ahead.</strong></td>
</tr>
<tr>
<td><strong>Signal Aspect</strong></td>
<td><strong>The displayed pattern or position of lights or arms used to give a Signal indication.</strong></td>
</tr>
<tr>
<td><strong>Signal Indication Number</strong></td>
<td><strong>Unique identifying number of a Signal.</strong></td>
</tr>
<tr>
<td><strong>Signalled / Signalling</strong></td>
<td><strong>Refer Signal.</strong></td>
</tr>
<tr>
<td><strong>Signalling and Communication Infrastructure</strong></td>
<td><strong>Signalling equipment and communications equipment used as part of the Safeworking and operating systems of the Network.</strong></td>
</tr>
<tr>
<td><strong>Signals Engineer</strong></td>
<td><strong>A person with the appropriate delegated authority and Signals engineering competence to make judgments about Signalling safety.</strong></td>
</tr>
<tr>
<td><strong>Signals Maintenance Representative</strong></td>
<td><strong>A qualified and authorised Signals maintenance Worker.</strong></td>
</tr>
<tr>
<td><strong>Single Line Automatic Block Signalling (SLABS) Territory</strong></td>
<td>The portions of line where the Single Line Automatic Block Signalling System of Safeworking is used.</td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Single Line Working</strong></td>
<td>Rail Traffic working in both directions over a single line.</td>
</tr>
<tr>
<td><strong>Sole Occupancy</strong></td>
<td>Sole Occupancy of Track within defined limits.</td>
</tr>
<tr>
<td><strong>Special Notice</strong></td>
<td>Formal notification issued by the relevant authority regarding Rail Traffic operations or Track work.</td>
</tr>
<tr>
<td><strong>Special Working</strong></td>
<td>Working Rail Traffic using an Alternative Proceed Authority or Manual Block Working.</td>
</tr>
<tr>
<td><strong>Speed Restriction / Speed Restricted</strong></td>
<td>An imposed reduction of the Normal Speed for a portion of Track.</td>
</tr>
<tr>
<td><strong>Stable</strong></td>
<td>To leave Rail Traffic unattended and Secured, usually in a Siding.</td>
</tr>
<tr>
<td><strong>Station Limit</strong></td>
<td>Station Limits define the limits of Controlled Locations. Refer <strong>Rule 4011</strong>.</td>
</tr>
<tr>
<td><strong>Stopping Place</strong></td>
<td>A designated Location, next to the line, that may allow personnel to enter and leave Trains.</td>
</tr>
<tr>
<td><strong>Structure Bond</strong></td>
<td>A Bond connecting the steelwork of an overhead line structure, bridge, or other metal structure to the Traction Earth. This Bond is provided to prevent the rise of hazardous voltages on structures and steelwork.</td>
</tr>
<tr>
<td><strong>Structure Number</strong></td>
<td>A unique number given to an Overhead Line Equipment mast within the PTA Rail Corridor.</td>
</tr>
<tr>
<td><strong>Substation</strong></td>
<td>A compound containing electrical switchgear, Transformers and equipment to which main supplies from the Power Supply Authority are brought and from which a Feeder Station is fed.</td>
</tr>
<tr>
<td><strong>Sufficient Warning Time</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Supervisory Control and Data Acquisition (SCADA)</strong></td>
<td>A computerised system for the use of ECOs to remotely control the electric traction equipment in Substations, Feeder Stations, Track Sectioning Cabins and to operate motorised Isolators.</td>
</tr>
<tr>
<td><strong>Suspend</strong></td>
<td>Practice used in some Networks when a Work on Track Authority is suspended and then reinstated at a later time.</td>
</tr>
<tr>
<td><strong>Swing Nose Blades</strong></td>
<td>These blades are designed to switch against the stock rail to eliminate the flangeway gap between the conventional fixed nose vee and the stock rail.</td>
</tr>
<tr>
<td><strong>System of Safeworking</strong></td>
<td>An integrated system of operating procedures and engineered systems used in the Network, for safe operation of Rail Traffic, and protection of people and property.</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Tail Lights</strong></td>
<td>Red lights used as to designate the end of Rail Traffic. (Refer also End-of-Track Marker).</td>
</tr>
<tr>
<td><strong>Temporary Speed Restriction (TSR)</strong></td>
<td>An imposed reduction of the Normal Speed for a portion of Track.</td>
</tr>
<tr>
<td><strong>Temporary Traction Bond</strong></td>
<td>An insulated cable fitted with rail clamps at each end used to temporarily bridge gaps in the traction rail.</td>
</tr>
<tr>
<td><strong>Terminal Line</strong></td>
<td>A dead-end line.</td>
</tr>
<tr>
<td><strong>Through-Movement</strong></td>
<td>Transit or Travel in the Network. Refer also Transit or Travel.</td>
</tr>
<tr>
<td><strong>Touch Lookout(s)</strong></td>
<td>A Lookout provided to be able to touch another Worker to provide Warning of approaching Rail Traffic.</td>
</tr>
<tr>
<td><strong>Track</strong></td>
<td>The combination of rails, rail connectors, sleepers, ballast, Points and crossings.</td>
</tr>
<tr>
<td><strong>Track Access Exemption Certificate</strong></td>
<td>An Authority Issued by the General Manager of Network and Infrastructure, or delegate, to permit Non-Accredited Workers to work in the Rail Corridor for no more than five (5) consecutive days.</td>
</tr>
<tr>
<td><strong>Track Access Permit (TAP)</strong></td>
<td>Identification of a person deemed Competent to carry out work at the level identified on the Rail Industry Worker Card (RIWC).</td>
</tr>
<tr>
<td><strong>Track Circuit</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Track Circuited Territory</strong></td>
<td>Portions of line where the System of Safeworking relies on Track Circuits to detect the presence of Rail Traffic.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<td>-------------------------------------------</td>
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</tr>
<tr>
<td><strong>Track Circuit Shorting Clip</strong></td>
<td>A cable that can be clamped to a line’s rails to activate Track Circuits.</td>
</tr>
<tr>
<td><strong>Track Inspection Vehicles</strong></td>
<td>Refer Track Vehicle.</td>
</tr>
<tr>
<td><strong>Track Occupancy Authority (TOA)</strong></td>
<td>An Authority for Competent Workers and their equipment to occupy a defined portion of Track for a specified period.</td>
</tr>
<tr>
<td><strong>Track Maintenance Machine</strong></td>
<td>A flange wheeled vehicle used for Infrastructure maintenance, construction and inspections. Separate to freight Rollingstock (e.g. wagons used for carrying rail, sleepers, spoil, ballast etc.) and Road Rail Vehicles.</td>
</tr>
<tr>
<td><strong>Track Sectioning Cabin (TSC)</strong></td>
<td>A building containing electrical switchgear and other equipment which is arranged to connect together a number of Electrical Sections of Overhead Line Equipment.</td>
</tr>
<tr>
<td><strong>Track Speed</strong></td>
<td>The allowed maximum speed for a portion of Track.</td>
</tr>
<tr>
<td><strong>Track Vehicle</strong></td>
<td>A vehicle, usually self-propelled, used for inspecting and/or maintaining Infrastructure.</td>
</tr>
<tr>
<td><strong>Track Vehicle Identification Number</strong></td>
<td>The unique number displayed on a Track Vehicle.</td>
</tr>
<tr>
<td><strong>Track Vehicle Operator</strong></td>
<td>A Competent Worker controlling the movement of a Track Vehicle.</td>
</tr>
<tr>
<td><strong>Track Work</strong></td>
<td>Construction, maintenance or repair work on or around Infrastructure in the Rail Corridor.</td>
</tr>
<tr>
<td><strong>Track Worker</strong></td>
<td>A Competent rail safety Worker whose primary duties are associated with work on or around Infrastructure in the Rail Corridor.</td>
</tr>
<tr>
<td><strong>Track Work Notice</strong></td>
<td>Issued by the Manager Rail Infrastructure or delegate for any of the following:</td>
</tr>
<tr>
<td></td>
<td>• any Emergency works that are being added to the three (3) day Locked Works program;</td>
</tr>
<tr>
<td></td>
<td>• any minor changes that alter the details in the Locked Works program; and</td>
</tr>
<tr>
<td></td>
<td>• any works that may impact on Infrastructure/support services.</td>
</tr>
<tr>
<td><strong>Traction Bond</strong></td>
<td>A Bond connecting the Traction Return Rail to the various items of equipment in the traction Current return Circuit. It shall be assumed that this Bond will be carrying traction Current at all times.</td>
</tr>
</tbody>
</table>
| **Traction Distribution System** | A railway electrical distribution Network used to provide energy for Rollingstock. The system may comprise of:
- contact line systems;
- return Circuit of electric traction systems;
- running rails of non-electric traction systems, which are in the vicinity of, and conductively connected to the running rails of an electric traction system;
- electrical installations, which are supplied from contact lines either directly or via a Transformer; and/or
- electrical installations in substations, which are utilized solely for distribution of power directly to the contact line electrical installations of switching stations. |
<p>| <strong>Traction Earth</strong> | The earth for the traction distribution system which primarily consists of the Traction Return Rails, Earth Wires and overhead structures. |
| <strong>Traction Return Current</strong> | The electric Current returning from the overhead power supply, via electric Rail Traffic, through the rails to sub-stations. |
| <strong>Traction Return Rail</strong> | A traction Return Rail is one rail or both rails (of a Track or Tracks) into which the Traction Return Current is free to flow from the wheels of electric vehicles (Electrical Multiple Unit or Locomotive) to form part of the electrical Circuit by means of which the Traction Return Current flows from the electric vehicle to the power supply source (Feeder Station). The Traction Return Rails must be electrically continuous throughout any length of Track (despite any mechanical interruption by Points or crossings or means of interruption to Signalling Track Circuit Currents) or any transpositions. |
| <strong>Trailing Points</strong> | Points with the switch blades facing away from approaching Rail Traffic. |
| <strong>Train</strong> | A Locomotive or self-propelled vehicle, alone or coupled to one or more vehicles. A Train comprising one or more Electric Multiple Units. |
| <strong>Train Blocking</strong> | A procedure to prevent the movement of electric Trains, or all Trains, into a section of Track. |
| <strong>Train Consist</strong> | A listed order of the vehicles arranged to make up a complete Train. |</p>
<table>
<thead>
<tr>
<th><strong>Train Control</strong></th>
<th>The function responsible for managing Rail Traffic paths and Issuing Occupancy Authorities.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Train Control Diagram</strong></td>
<td>A diagram (graph) showing operational information for a Train Control area, also known as a Train Control graph.</td>
</tr>
<tr>
<td><strong>Train Controller</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Train Crew</strong></td>
<td>The Competent Workers responsible for the operation of a Train.</td>
</tr>
<tr>
<td><strong>Train Number (Identification)</strong></td>
<td>A Train or run number used to provide unique identification of a Train.</td>
</tr>
<tr>
<td><strong>Transformer</strong></td>
<td>Static apparatus for supplying an alternating Current at one voltage when fed with alternating Current at a different voltage.</td>
</tr>
<tr>
<td><strong>Transit</strong></td>
<td>Through-Movement along a portion of line.</td>
</tr>
<tr>
<td><strong>Travel / Travelling</strong></td>
<td>Planned or purposeful movement from one Location to another.</td>
</tr>
</tbody>
</table>

**U**

| **Unauthorised** | Not given approval, or exceeding the Limit of Authority. |
| **Unidirectional** | Allowing for normal travel in one direction only according to the Infrastructure and System of Safeworking in use. |
| **Unplanned Work** | Work that is required when responding to Conditions Affecting the Network on other unplanned inspections. |
| **Up Main** | On the Fremantle Line, the Main Line Traveling towards Fremantle. On all other Lines, the Main Line traveling towards the City. |

**V**

<p>| <strong>Vehicle</strong> | Used to denote rail vehicles where reference to a specific type or class is not required or not intended. |</p>
<table>
<thead>
<tr>
<th><strong>Vicinity Form</strong></th>
<th>A form issued by a Public Transport Authority Nominated Person to the Person Responsible for Electrification Safety (PRES) to detail work restrictions.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visibility Lights</strong></td>
<td>Lights, fitted below the Headlights, to improve Rollingstock visibility and to assist the crew in viewing of the immediate area in front of the vehicle. Also known as station lights, ditch lights or crossing lights.</td>
</tr>
<tr>
<td><strong>Walking in the Danger Zone</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td>An indication that serves to warn, give notice, or Caution.</td>
</tr>
<tr>
<td><strong>Wayside</strong></td>
<td>Parts of the Infrastructure not directly involved in Train operations but necessary for the safe and effective operation of the railway.</td>
</tr>
<tr>
<td><strong>Whistle</strong></td>
<td>A device such as a bell, whistle, siren, horn or hooter, fitted to Rail Traffic to give audible Warning.</td>
</tr>
<tr>
<td><strong>Work Authority</strong></td>
<td>A formal authority that allows Rail Traffic to move in either direction between specified Locations.</td>
</tr>
</tbody>
</table>
| **Worker** | A person that carries out work in any capacity for a person conducting a business or undertaking, including work as:  
  - an employee; or  
  - a contractor or subcontractor; or  
  - an employee of a contractor or subcontractor; or  
  - an employee of a labour hire company who has been assigned to work in the person’s business or undertaking; or  
  - an apprentice or trainee. |
<p>| <strong>Work Group</strong> | One or more Workers who function as a team to undertake a common task in the Rail Corridor under the supervision of a Work Group Supervisor and have their own prestart briefing. |
| <strong>Working Limits</strong> | The limits stated on a Permit to Work between which it is safe and permissible to work. The limits are usually identified by Structure Numbers. |</p>
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<td>Work on Track</td>
<td>The work performed in the Rail Corridor. To perform work in the Rail Corridor.</td>
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<tr>
<td>Work on Track Authority</td>
<td>An authority to perform Work on Track. Refer Local Possession Authority (LPA) and Track Occupancy Authority (TOA).</td>
</tr>
<tr>
<td>Work Out of Service</td>
<td>To work to a suitable Yard, service depot, Siding or Location where Rollingstock can leave the Running Line for repair or replacement of vehicle equipment.</td>
</tr>
<tr>
<td>Worksite</td>
<td>A Worksite is an area with defined limits that is Protected so that work can be performed.</td>
</tr>
<tr>
<td>Worksite Permit</td>
<td>A permit Issued to a Protection Officer by the Possession Protection Officer to enable the Protection Officer to place In-Field Protection for a Worksite in the Local Possession Authority.</td>
</tr>
<tr>
<td>Worksite Permit Master</td>
<td>The document on which the Possession Protection Officer records the Issue and receipt of Worksite Permits issued for the Local Possession Authority.</td>
</tr>
<tr>
<td>Works Program Number</td>
<td>The unique identifying number allocated to planned work by the Manager Rail Infrastructure Access (MRIA).</td>
</tr>
<tr>
<td>Work Train</td>
<td>A Train used in maintenance or construction activities.</td>
</tr>
<tr>
<td>Wrong Running Direction</td>
<td>The direction opposite to the normal direction of Travel on Unidirectional lines.</td>
</tr>
<tr>
<td>Yard</td>
<td>A system of Tracks within yard limits.</td>
</tr>
</tbody>
</table>