

**PUBLIC TRANSPORT AUTHORITY**  
SAFEWORKING RULES AND PROCEDURES

**1002**  
PRINCIPLES OF  
NETWORK  
OPERATIONS

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## 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*.
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## 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*.
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### **3. SAFWORKING 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.
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## **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*.
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## **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*.
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## 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.

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## 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

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## 8. EFFECTIVE DATE

1 November 2018