

Network Safeworking Rules and Procedures

Principles of Network Operations

Rule Number: 1002

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Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	03 02 2020	All	Major Review

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1. Purpose

This rule sets out:

- *Arc Infrastructure Network* operating principles;
- the type of *Safeworking Systems* used; and
- the *Authorities* and conditions for managing safe *Occupation* of the *Track*.

2. General

The following are the underlying principles for Safeworking.

- A *Safety Assessment* must be completed before persons enter the *Danger Zone*.
- When in the *Danger Zone*, all workers must be *Protected*.
- Workers must have identified *Safe Places* when on *Track*.
- If *Rail Traffic* cannot be separated from workers, the *Rail Traffic* must be managed to ensure the safety of workers on *Track*.
- *Track Occupancy* must only be carried out using a defined *Track Occupancy* method or *Authority*.
- Known hazards must be managed.
- The person who introduces the risk must ensure that the risk is appropriately managed.
- Workers must be provided with all applicable information.
- Workers must be warned about known 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.
- A simplified and common system for degraded operations may be formulated to apply in all *Systems of Safeworking*.

For additional detail on these principles, refer to RSSB Operational Concept for the GB Mainline Railway.

3. Safeworking System

3.1 Absolute Block System

The *Absolute Block System* provides that *Rail Traffic* is not permitted to enter a *Train Order Section* or an *Automatic Signalling Section*, between two *Adjoining Controlled Locations*, until the previous *Rail Traffic* has passed completely out of the *Section*.

3.2 Permissive Working

The object of *Permissive Working* in *Automatic Signalling* is to facilitate the regular movement of *Rail Traffic* by dividing the line between *Controlled Locations* into *Blocks* and automatically maintaining the proper space interval 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*.

All signals displaying a STOP aspect must be treated as an *Absolute Signal*.

3.3 Centralised Traffic Control (CTC)

3.3.1 Double Line Automatic Signalling

The object of *Double Line Automatic Signalling* is to provide a separate line for Up and Down movements allowing for greater density of *Rail Traffic*.

3.3.2 Single Line Automatic Signalling

The object of *Single Line Automatic Signalling* is to prevent *Rail Traffic Travelling* in opposite directions being between two *Controlled Locations* at the same time.

In *Automatic Signalling* systems this is accomplished by:

- in the case of following *Rail Traffic*, electrically *Securing* the signals at STOP, unless the intermediate *Block* ahead of the signal is *Clear*, and
- in the case of opposing *Rail Traffic*, electrically monitoring that the *Block* is *Clear* and the *Departure Signals* at the opposite end of the *Section* is controlled to STOP. Thus it would not be possible for the *Departure Signals* at opposite ends of the *Section* to exhibit a Proceed indication simultaneously.

3.4 Train Order Working

The object of *Train Order* working is to prevent more than one *Rail Traffic* movement being between two *Adjoining Train Order Stations* at the same time.

In *Train Order* working systems this is accomplished by the *Network Controller*.

- in the case of following *Rail Traffic* movements, ensuring that the preceding *Rail Traffic* has arrived *Complete* at the end of a *Train Order Section* before a *Train Order* is *Issued* for any following *Rail Traffic*; and
- in the case of opposing *Rail Traffic* movements, not *Issuing* a *Train Order* for *Rail Traffic* to advance into a *Train Order Section* unless the opposing *Rail Traffic* holds a *Train Order* which shows the same *Crossing Station* for both *Rail Traffic* movements.

4. Track Occupancy – for Work that Obstructs the Track or Affects Track Geometry

In all *Safeworking Systems*, work that *Obstructs* the *Track*, affects *Track* geometry, and/or places workers and *Rail Traffic* at risk, requires an *Authority Issued* by the *Network Controller* in one of the following ways.

4.1 Local Possession Authority (LPA)

- The *LPA* is Issued by the *Network Controller*.
- The *LPA* is used for major or complex *Work on Track* for a specified period. This *Authority* transfers the management of a defined portion of *Track* to a *Possession Protection Officer*.
- Multiple worksites are permitted within the *LPA*.
- *Associated Rail Traffic* for the worksites is permitted under the *LPA*.
- The *Possession Protection Officer* receives the *LPA* in writing on a *LPA* Form.

4.2 Work on Track Authority (WoTA)

- The *WoTA* is Issued by the *Network Controller*.
- This *Authority* is to *Occupy* a defined portion of *Track* for *Work on Track* while *Rail Traffic* is diverted from, or not authorised to enter, the *Track*, for a specified period.
- This *Authority* is for a single worksite.
- *Associated Rail Traffic* is permitted to enter the worksite under the *WoTA*.
- The *Protection Officer* receives the *WoTA* electronically or in writing on a *WoTA* form.

5. Accessing the Danger Zone for Work

Before entering the *Rail Corridor* the *Network Controller* must be advised.

Regardless of the type of *Protection* being used, before work commences the:

- *Network Controller* must give approval where required; and
- *Protection* must be in place.

5.1 Lookout Working

Work in the *Danger Zone* that does not break *Track* or affect *Track* geometry and involves ensuring that a *Safe Place* is available for workers, requires the *Protection Officer* to provide *Protection* for workers in the following way:

- *Lookout Working* is used to Protect workers who *Occupy* a defined portion of *Track* for work in the *Danger Zone* between *Rail Traffic* movements; and
- The *Protection Officer* records the use of *Lookout Working*.

6. References

3001 Local Possession Authority

3005 Work on Track Authority (WoTA)

3013 Lookout Working

5001 Centralised Traffic Control System

5017 Train Order Working

7. Effective Date

3 February 2020