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Supersedes GERT8000-HB1 Iss 6 with effect from 04/12/2021



GERT8000-HB1

Rule Book

Handbook 1

## General duties and track safety for track workers

Issue 7



September 2021

Comes into force 04 December 2021

**This handbook is for those personnel who need to go on the operational railway to carry out their duties, with the exception of a:**

- **train driver**
- **guard**
- **shunter**
- **signaller**
- **crossing keeper**
- **designated person (DP).**

**The personnel listed above will not receive this handbook but will get Rule Book module G1 *General safety responsibilities and personal track safety for non-track workers.***

**All personnel, other than those listed above, who go on to the operational railway are defined as track workers for the purpose of the Rule Book.**

**Published by:**

**RSSB**

**The authoritative version of this document is available at [www.rssb.co.uk](http://www.rssb.co.uk)**

**Contents approved by Traffic Operation and Management Standards Committee.**

**For information regarding the Rule Book, contact:**

**<https://customer-portal.rssb.co.uk>**

**First issued June 2010**

**Issue 7, September 2021**

**Comes into force 04 December 2021**

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# 1 Definitions

## **A position of safety**

If the maximum speed is 100 mph (160 km/h) or less, you are in a position of safety if you are at least 1.25 metres (4 feet) from the nearest line on which a train can approach.

If the maximum speed is over 100 mph (160 km/h), the distance increases to 2 metres (6 feet 6 inches).

## **Automatic track warning system (ATWS)**

An automatic system of warning track workers when a train is approaching.

## **Lookout-operated warning system (LOWS)**

A system operated by a lookout used for warning track workers when a train is approaching.

## **Semi-automatic track warning system (SATWS)**

A system of warning track workers that a train is approaching, where the warning is cancelled manually.

## **Train-operated warning system (TOWS)**

A system operated by trains used for warning track workers when a train is approaching.

## **Lineside**

You are on the lineside (shown green in diagram HB1.1) if you are between the railway boundary fence and the area called 'on or near the line'.

You are not on the lineside if you are on a station platform.

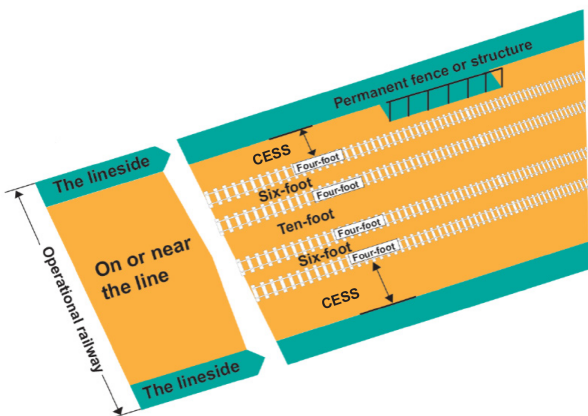
You are not on or near the line if you are crossing the line at a level crossing.

### **On or near the line**

You are on or near the line (shown orange in diagram HB1.1) if you are:

- within 3 metres (10 feet) of a line and there is no permanent fence or structure between you and the line
- on the line itself.

You are not on or near the line if you are on a station platform unless you are carrying out engineering or technical work within 1.25 metres (4 feet) of the platform edge.



**Diagram HB1.1**

### Positions on or near the line

The following terms are used to describe the different positions on or near the line.

The terms shown are not exact measurements.

**The cess** is the space alongside the line or lines on the outside edge of the running rail.

**The four-foot** is the space between the rails of one line.

**The six-foot** is the space between one line and another (where the rails are the normal distance apart).

**The ten-foot** is the space between one line and another where there is a wide space between a pair of lines and there are three lines or more. This distance may be less than 10 feet.

### **Maximum speed**

The maximum speed is the highest speed at which trains are allowed to travel over a line. The maximum speed for each line is shown in the *Sectional Appendix*.

### **Operational railway**

The term operational railway includes the area called on the lineside and the area called on or near the line.

### **Safety barrier**

A safety barrier can be a permanent fence or barrier or a temporary fence made of rigid or tensioned material, plastic netting or barricade tape.

## **2 General instructions**

### **2.1 Rules, regulations and instructions**

Rules, regulations and instructions apply to the task being carried out and to those carrying out the task, no matter what grade or job title they have.

Unless you are under instruction from a competent person, you must be competent to correctly apply the rules, regulations and instructions to the tasks you are authorised to carry out.

Safety must always be your first concern. If there is no rule that allows or prevents you doing something you believe must be done, you must do it in the safest way you know taking into account your training and experience.

## **2.2 Mechanical and electrical plant or other equipment**

You must not operate mechanical or electrical plant or any other equipment unless you have been trained and are authorised to do so. If necessary, you must also hold a certificate of competency in operating the plant or equipment.

## **2.3 Getting on and off moving rail vehicles**

You must not get off a moving rail vehicle. This does not apply to vehicles designed for continuous slow-speed movement such as the high-output ballast cleaner.

You must not get on a moving rail vehicle unless it is absolutely necessary, and then only if you can do so safely.

You must not ride on the steps of a locomotive or vehicle or ride on a hand trolley or any other vehicle not designed for this purpose.

## **2.4 Travelling in driving cabs**

You must only travel in the driving cab of a train if this is in connection with your duties shown in the Rule Book or you have authority to do so.



If you are in possession of a valid cab pass, you must:

- show your cab pass to the driver before entering the cab
- show the driver the additional permission issued by the train operator when asking for access to the cab of a train carrying high consequence dangerous goods
- tell the driver the reason for travelling in the cab and where you plan to travel to
- arrange for the train to be stopped specially if necessary
- check you have any required personal protective equipment your company policy requires if you plan to leave the train at other than a station platform
- check with the driver if any mobile electronic devices are to be switched off before entering the cab.

When travelling in the driving cab you must not distract the driver.

## **3 Going on the lineside**

### **3.1 General**

You must wear the correct high-visibility clothing issued to you by your employer.

You must use an authorised access point, if provided, to get onto the operational railway.

You must use authorised walking routes if they are provided.

You must raise one arm above your head to acknowledge the driver of any approaching train who sounds the warning horn.

### **3.2 Working on the lineside**

Any work done on the lineside must not affect or go within the area called on or near the line unless a controller of site safety (COSS) or a safe work leader (SWL) is present and has given permission for the work to take place.

### **3.3 Using a road vehicle on the lineside**

If you are using a road vehicle, you must not allow it to enter the area called on or near the line unless:

- you are the driver of the vehicle and are either a COSS, IWA or an SWL, or
- a COSS or SWL is present and has given you permission.

## **4 Going on or near the line alone**

### **4.1 General**

You must have with you a valid certificate of competence in personal track safety issued by your employer.

You must wear the correct high-visibility clothing issued to you by your employer.

The only occasion when you can go on or near the line without a COSS or SWL, is when you are walking alone.

You must never work alone unless you are a COSS, IWA or SWL.

Make sure you have a suitable lamp with you if you will be on or near the line during darkness, poor visibility or if you are to enter a tunnel.

## **4.2 Local knowledge**

Before you go on or near the line alone, you must know about all of the following for each line:

- the maximum speed
- the direction from which trains normally approach
- the location of any area where you must not go while trains are running
- any location with limited clearances.

## **4.3 While walking alone**

Any items you carry while walking must not affect your ability to walk safely or to see or hear and acknowledge approaching trains.

You must use authorised walking routes if they are provided.

Do not wear anything that makes you less able to see or hear approaching trains.

Do not allow yourself to be distracted by anyone or anything.

If you have to cross the line, you must not step on rails or sleepers or between movable parts of points.

If you have to use a mobile phone, first move to a position of safety and then stand still until you have finished using the phone.

Keep a good lookout for approaching trains. Make sure you look up at least every 5 seconds so that you can reach a position of safety and be in it no less than 10 seconds before an approaching train arrives.

#### **4.4 When a train approaches**

When a train approaches you must immediately move to a position of safety or, if already in a position of safety, stay there.

If the driver sounds the warning horn, raise one arm above your head to show you have heard the warning.

You must stay in your position of safety until the train has passed clear or you are certain you will not be put in danger by that train or any other train.

### **5 Going on or near the line with others**

#### **5.1 General**

You must have with you a valid certificate of competence in personal track safety issued by your employer.

You must wear the correct high-visibility clothing issued to you by your employer.

#### **5.2 COSS or SWL must be present**

You must not go into the area called on or near the line with another person unless you are with a COSS or SWL. The COSS or SWL must then stay with you while you are there.

You can identify the COSS or SWL by the armband on the left arm or the badge worn on the chest.

The COSS or SWL must have given you a briefing about the safe system of work that has been set up so that you will not be put in danger from passing trains.

If you do not understand the briefing, ask the COSS or SWL to explain it.

You must sign the safe-work briefing form (RT9909) to show you understand the safe system of work that is to be used.

You must follow all instructions given by the COSS or SWL.

### **5.3 Using a safety barrier**

If a safety barrier is being used as part of the safe system of work, you must not lean against it or rest tools or equipment against it.

### **5.4 Using lookouts**

You must stop any work, acknowledge the warning and move to the position of safety immediately the lookout gives the warning.

If someone does not acknowledge or move to the position of safety when the lookout gives the warning, the lookout will give an urgent warning. This urgent warning is a series of short sharp blasts on the whistle or horn.

You must not leave the position of safety until the COSS or SWL gives you permission.

You must never distract a lookout.

## 5.5 Using site wardens

If the site warden gives a warning, you must check you are in the safe area. If you have moved into the danger area, you must immediately step back into the safe area.

The site warden will give a series of sharp short blasts on the whistle or horn as an urgent warning if the person does not immediately move back into the safe area.

You must never distract a site warden.

## 5.6 Using ATWS, SATWS, TOWS or LOWS

The COSS or SWL will tell you about the warning you will receive. You must immediately move to the position of safety when the warning is given.

You must not then leave the position of safety until the COSS or SWL gives you permission.

## 6 Reporting an accident

You must report an accident as quickly as possible to the person in charge or to the signaller or Operations Control.

When reporting an accident, you must first say '**This is an emergency call**'. This is important, as you will get the immediate attention of the person you are speaking to.

You must give your name, the exact location and details of the accident including whether any lines are or may be obstructed.

You must also say which emergency services are needed.

You must report all accidents and near misses to your supervisor or manager.

## **7 Preventing hazards**

### **7.1 Tools and equipment**

Tools and equipment must not be placed any closer than 2 metres (6 feet 6 inches) from a line on which a train could pass, unless you are absolutely sure that they will not be hit by a passing train or be moved by the slipstream of passing trains.

### **7.2 Gates and lineside fences**

You must keep gates at access points to the railway closed and locked to prevent people from trespassing and causing vandalism.

If you come across a damaged fence you must secure it if you can, and report any defects to the signaller or Operation Control.

### **7.3 Trespassers**

You must report anyone you believe to be trespassing to the person in charge, the signaller or Operations Control.

### **7.4 Reporting lineside fires**

You must immediately report a lineside fire to the person in charge, the signaller or Operations Control.

## **7.5 Flowing or pooling water that might affect structures or earthworks**

If you discover any flowing or pooling water that might affect structures or earthworks, you must immediately report this to the signaller or Operations Control.

Examples of this include:

- water rising up from the track or the cess
- unusual amounts of water pooling next to the track or in the cess
- water flowing down or pouring out of the sides of embankments or cuttings.

You must tell the signaller or Operations Control if the water appears to be displacing any material.

## **7.6 If you see something wrong with a train**

You must report to the person in charge, the signaller or Operations Control, anything that looks unsafe on a train, such as:

- a door not closed properly or an insecure load
- a vehicle on fire or a hot-axle box
- the headlight not lit or the tail lamp missing or not lit
- the driver sounding the train in distress warning (which is a continuous series of long blasts on the high/loud tone of the horn)
- the driver or guard displaying a red handsignal
- the hazard warning indicator (flashing headlights).



## **7.7 Overhead power lines**

If an overhead electric power line belonging to an electricity company falls onto or near the railway line, you must, if necessary, carry out the instructions shown in section 8 of this handbook.

You must not go closer than 5 metres (approximately 5 yards) to the fallen power line or anything in contact with it, until it has been confirmed by the electricity company that it is safe to do so.

## **8 Stopping trains in an emergency**

### **8.1 Hazards that may put trains in danger**

The following hazards might put approaching trains in danger.

- A track defect.
- A flood.
- An obstruction.
- A fire.
- Damage to structures or earthworks above or below the line.
- Any light which is out at an emergency indicator.
- A cow, bull or other large animal within the boundary fence (even if it is not an immediate danger to trains).
- Any other animals on or near the line.

## **8.2 Reporting the hazard and stopping trains**

If you become aware of any of these or other dangers, you must immediately tell the person in charge, the signaller or Operations Control.

As well as reporting the hazard, you must take any necessary action, such as stopping trains yourself. If you have to stop a train in an emergency, you must show a hand danger signal clearly to the driver as follows.

### **During daylight**

You must show a red flag. If you do not have a red flag, raise both arms above your head. If you are riding on a vehicle, raise one arm held out horizontally.

### **During darkness or in poor visibility**

You must show a red light to the driver or wave any light violently.

## **9 Communications procedure**

### **9.1 Communicating clearly**

You must make sure you properly understand the meaning of all messages whether they are communicated by phone, radio or face-to-face.

You must:

- make sure you are talking to the right person
- give your location, if using a phone or radio
- give your name and the name of your employer
- state what task you are performing
- if necessary, let the person know how you can be contacted
- use the phonetic alphabet to make sure names and locations that are difficult to pronounce are fully understood
- never use the words 'not clear' to describe a line that is obstructed, always use '**line blocked**'.

You must say numbers one at a time. You should say 8107 as 'eight, one, zero, seven'. There are exceptions to this such as when giving the time or when referring to a rule book module or handbook.

If you are receiving a message, make sure you fully understand it. You must repeat the message back so that the other person knows you correctly understand it.

To help make sure your message is fully understood when using a telephone or radio:

- speak with the mouthpiece close to your mouth and speak directly into the mouthpiece
- talk slightly slower than normal using a natural rhythm
- use your normal level of volume when speaking
- avoid using hesitation sounds for example 'um' and 'er'
- use clear sentences
- get the person to repeat your message back to you.

## 9.2 Lead responsibility

During any conversation, one person must always take lead responsibility.

The person who must take lead responsibility depends on the task being carried out. Examples are shown below.

| <b>Lead responsibility</b>                 | <b>When communicating with</b>     |
|--|------------------------------------|
| Electrical control operator (ECO)          | anyone                             |
| Signaller                                  | anyone except the ECO              |
| PICOP (person in charge of the possession) | anyone except the ECO or signaller |
| Route-setting agent                        | points operator                    |
| Protection controller (PC)                 | each COSS or SWL                   |
| COSS or SWL                                | members of the work group          |

COSS or SWL                                      each lookout/site warden

If it is not clear who has lead responsibility, or if two people carrying out the same task are communicating with each other, the person who begins the conversation must always take lead responsibility.

### **9.3 Phrases to use when using a radio or telephone**

| <b>Phrase</b>                    | <b>Meaning</b>   |
|----------------------------------|--|
| <b>This is an emergency call</b> | This message provides information which needs immediate action to prevent death, serious injury or damage. |
| <b>Repeat back</b>               | Repeat all of the message back to me.  |
| <b>Correction</b>                | I have made a mistake and will now correct the word or phrase just said.                                   |

### **9.4 Other phrases to use when using a radio and only one person can be heard at a time**

| <b>Phrase</b> | <b>Meaning</b>                                       |
|---------------|--|
| <b>Over</b>   | I have finished my message and am expecting a reply. |

**Out** I have finished my message no reply is expected.

## **9.5 Using the phonetic alphabet**

You must use the phonetic alphabet:

- to identify letters of the alphabet
- to spell words and place names that are difficult to say, or may be misunderstood
- if there is interference on the radio or phone
- when quoting the identity of signals or points
- when quoting train descriptions.

**This is the phonetic alphabet.****A** - alpha**B** – bravo**C** - charlie**D** - delta**E** – echo**F** - foxtrot**G** – golf**H** - hotel**I** - india**J** - juliet**K** – kilo**L** – lima**M** – mike**N** - november**O** - oscar**P** - papa**Q** - quebec**R** - romeo**S** - sierra**T** - tango**U** - uniform**V** - victor**W** - whisky**X** - x-ray**Y** - yankee**Z** - zulu**9.6 Using communications equipment**

You must not use communications equipment if it may cause a distraction or affect safety.

Make sure you are in a position of safety before using mobile communications equipment.

Unless it is an emergency, you must not use the group call, general call or conference-call facility for passing instructions to do with:

- passing signals at danger or an end of authority (EoA) without a movement authority (MA)
- protecting trains
- wrong-direction movements
- unsignalled movements.

## 10 Limited clearance signs

### Limited clearance warning sign



There is no position of safety on this side of the railway for the length of the structure. You must not enter or stand at that location when a train is approaching.

### No refuges warning sign





There is no position of safety on this side of the railway for the length of the structure. However, there are positions of safety, or refuges, on the opposite side of the railway line.

### Prohibition sign



You must not pass beyond this sign while trains are running unless you are carrying out emergency protection. This is because you would not be able to reach a position of safety or refuge safely. If you are carrying out emergency protection, you must take extreme care.

## 11 Telephones with limited clearance

Some telephones are positioned where there is limited clearance between the telephone and the adjacent lines.

These telephones are identified by one of the following signs shown on or near to the telephone or on the signal post or gantry.

You may use these telephones only in an emergency and then only if no other form of communication is available.



## **Core operational aim**

The core aim of the fundamental operational principles is to enable the safe and timely delivery of people and goods to their destination.

## **Fundamental operational principles**

- 1** The method of signalling must maintain a space interval between trains that is safe.
- 2** Before a train is allowed to start or continue moving, it must have an authority to move that clearly indicates the limit of that authority.
- 3** Trains proceeding over any portion of line must not be obstructed in a way that threatens their safety.
- 4** Trains must be prevented from proceeding onto a portion of line if it is known or suspected that it would not be safe for them to pass.
- 5** Trains must not be allowed to begin or continue their journeys until it is clear it is safe for them to do so.
- 6** Trains must only be allowed to operate over any portion of line as long as the rolling stock is compatible with the infrastructure on that portion of line.

- 7** Trains must not continue to operate after they have been found to be unsafe in any respect, until measures have been taken to allow them to continue safely.
- 8** People must be kept a safe distance from moving trains.
- 9** The workforce must be protected from the particular hazards associated with electrified railways.

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Supersedes GERT8000-HB1 Iss 6 with effect from 04/12/2021

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## **Notes**

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