KEYPOINTS

PERSONAL TRACK SAFETY (PTS)

Issue nine valid from June 2019

CERTIFICATION REQUIRED: CURRENT SENTINEL CARD ENDORSED WITH PTS COMPETENCY

Keypoint Cards have been produced for many of the track safety competencies, as a reminder of the main duties, rules and requirements.

Further copies are available from Willsons Group Services.

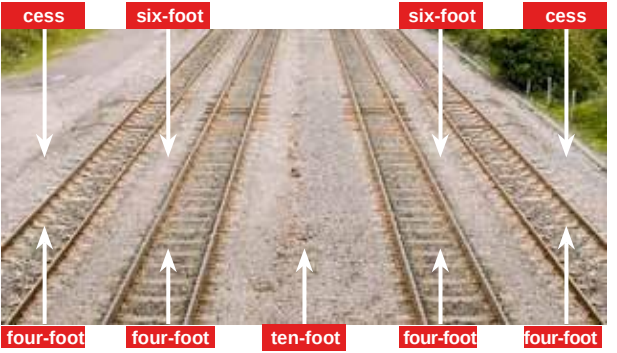
To obtain an order form, email:

denise@willsons.com

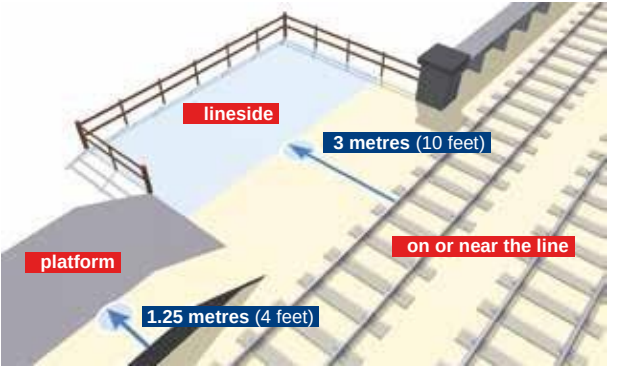
(phone **01636 702334** or fax **01636 701396**)

INFRASTRUCTURE AND TERMINOLOGY

Track layout



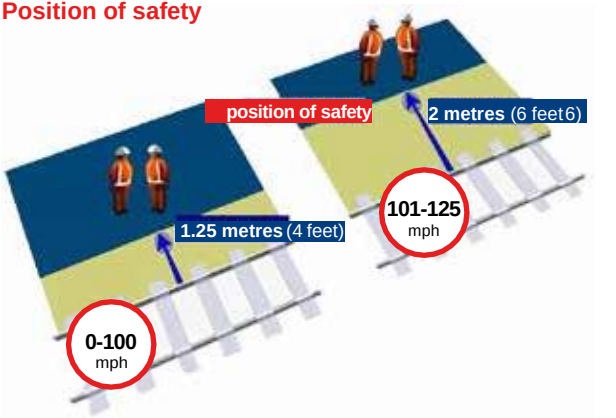
‘On or near the line’ and ‘lineside’



Running lines

Running lines are used by trains to go from place to place. Each running line has a name, speed limit and direction. Details are given in the Sectional Appendix.

Position of safety



Lightweight tools and equipment must be left at least 2 metres (6 feet 6 inches) from the line, irrespective of the speed limit.

Authorised walking route

An authorised walking route provides safe access to or from a place of work. These are often found near depots, stations and signalboxes. Details are given in the Hazard Directory.

Electrified lines

Consider all electrification equipment to be live at all times.

Overhead line equipment (OLE) provides trains with 25,000 volts AC. You must treat the OLE as being live at all times. Cables attached to these structure must be considered to be live as well.

Make sure you and anything you're holding doesn't come within 2.75 metres (9 feet) of live OLE.

Take extra care when working:

- at height (on platforms, embankments, bridges)
- with metal equipment or liquids.

Conductor rails (third rails) provide trains with up to 750 volts DC. The live rail is raised on insulating pots. Cables attached to these rails must be considered to be live as well.

Make sure you and anything you're holding doesn't come into contact with a conductor rail. You must stand 30cm (1 foot) away from the third rail.

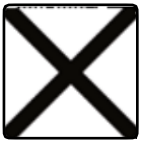
Make sure you:

- use insulated tools, troughs and appropriate PPE
- take extra care when working with liquids or near floodwater.

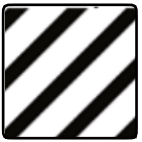
RAILWAY SIGNS

No position of safety on this side of the railway

Refuges on other side of the railway but not this side



Lineside phone

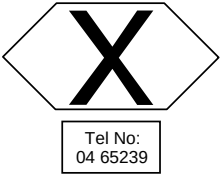


Signal post telephone

Phone to electrical control room

General railway phones (often found at level crossings)

Phones in areas of limited clearance.



GOING ONTO THE RAILWAY

Only go 'on or near the line' if absolutely necessary.

Make sure you:

- have your Sentinel card with you
- wear the necessary approved PPE and suitable workwear
- know the speed and direction of approaching trains
- know any hazards which might affect your safety
- walk in a position of safety and face traffic, if possible
- take extra care in junction areas.

Approved PPE

WHEN A TRAIN APPROACHES

You must be in a position of safety at least 10 seconds before a train arrives.

When a train approaches:

- stop what you are doing and go to the position of safety straight away
- acknowledge the driver's warning by raising one arm above your head
- watch the train go past.

Do not leave the position of safety unless you are sure no other trains are approaching.

CROSSING THE LINE

If you have to cross the line:

- check there is a position of safety on the opposite site.
- make sure there's sufficient sighting distance and no trains are approaching
- go straight across without stepping on rails or sleepers
- take care near points - your foot could get trapped

On lines with conductor rails:

- find a gap or a place where protective guarding is provided
- step over the running rail and conductor rail together.

WALKING IN A GROUP AND WORKING

The COSS/SWL

When a group needs to walk or work on or near the line, a COSS sets up a Safe System of Work to make sure nobody is put in danger by trains or electrification equipment.

They wear a blue badge or armlet with 'COSS' in white letters.

The COSS will tell you about the safety arrangements. This briefing will include:

- the nature and location of the work
- the access route and route to site
- the limits of the site and how they are defined
- the lines at the site, their speed limit, direction and whether they are open or blocked
- the best means of emergency communication
- hazards at the site such as electrification equipment
- how you are protected from trains.

The safe system

A Safe System of Work will be set up to protect you from trains. There are eight options for a safe system -

1. Safeguarded site of work
2. Fenced site of work
3. Separated site of work
4. Warning systems - Permanent
5. Warning systems - Train Operated Warning System (TOWS)
6. Warning systems - Human Activated equipment
7. Warning systems - Portable
8. Lookout warning

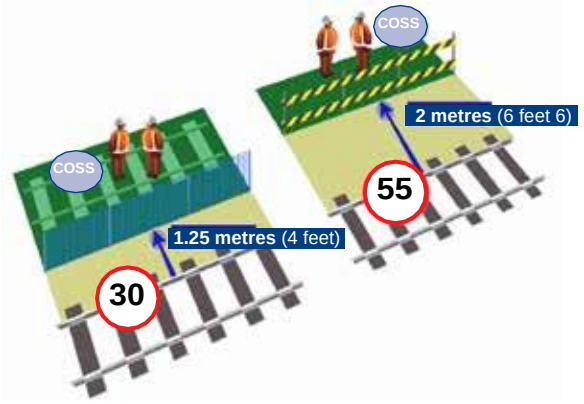
Safeguarded site of work: all lines are blocked.

Fenced site of work: a fence is put up between the site of work and nearest open line. The distance between the fence and the open line depends on the type of fence and speed of trains.

Speed of trains:	0-40 mph	41-125 mph
Rigid barrier	at least 1.25 metres	at least 1.25 metres
Netting/tape	at least 1.25 metres	at least 2 metres

For example:

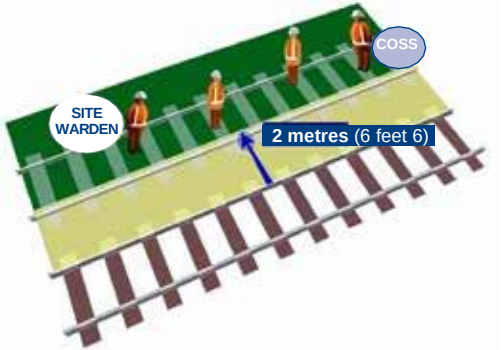
- (below left) on a 30mph line, blue netting must be at least 1.25 metres (4 feet) from the nearest open line
- (below right) on a 55mph line, barricade tape must be at least 2 metres (6 feet 6 inches) from the nearest open line.



Separated site of work: a space is provided between the site of work and nearest open line. The boundary of the work area depends on the size of the group and whether a Site Warden is appointed.

Boundary of the work area	Size of the group	Site Warden needed?
at least 2 metres	1 or 2 people	No
at least 2 metres	More than 2 people	Yes
at least 3 metres	Any	No

The example below shows a group of four people with a Site Warden at least 2 metres from the nearest open line.



A Site Warden warns you if you stray out of the Site Warden warning area. They wear a white badge or armlet with 'SITE WARDEN' in blue letters.

Never distract a Site Warden.

On an open line, you will be warned when a train is approaching. You will be given enough warning to reach the position of safety at least 10 seconds before the train arrives.

The warning will be given by one of the following five methods.

Automatic Track Warning System (ATWS): using lights and sirens and/or a personal warning device.



Examples of ATWS and LOWS warning equipment

Train Operated Warning System (TOWS): using sirens.

Lookout Operated Warning System (LOWS): using lights and sirens and/or a personal warning device.

Lookout: using a horn, whistle,touch or flag.

A Lookout wears a white badge or armlet with 'LOOKOUT' in red letters.

Never distract a Lookout.

BEYOND OR APPROACH

'Beyond', is on the far side of the signal when looking in the normal direction of traffic.

'**On the approach'**, is on the near side of a signal or points when looking in the normal direction of traffic.

(An example of a signal is given here however it could be a set of points or another fixed structure).

These terms are used extensively on the railway you need to know and understand their meaning.

TAKING CARE WHEN USING METAL EQUIPMENT

You must not place objects e.g. measuring tapes or chains across the rails as it might operate the signalling equipment and change a signal aspect in front of a driver.

You must not allow any metal object near signalling equipment or within 30cm (1 foot) of an axle counter head, as this could accidentally interfere with its operation.

USING ROAD VEHICLES NEAR THE LINE

When using a road vehicle on or near the line:

- You are the driver of the vehicle and are either a COSS/SWL or IWA, or
- COSS/SWL must be present and has given permission for the vehicle to be on or near the line

You must:

- Not allow any part of the vehicle to come within 2m (6ft 6in) of any line
- Switch on hazard warning lights
- In darkness or poor visibility use dipped headlights
- Turn the vehicle only at a suitable turning point and keep the back of the vehicle furthest from the line
- Switch off all red lights when the vehicle is parked

BASIC EMERGENCY PROCEDURES

Never put yourself in danger.

If you see something which could be a danger to trains (or the COSS/SWL requests you to):

- Tell the person in charge, the signaller or Operations Control
- connect a Track Circuit Operating Clip between the two running rails (except in fourth rail areas)
- walk towards oncoming trains for 2km ($1\frac{1}{4}$ miles) and place three detonators on the rail 20 metres (20 yards) apart
- move at least 30 metres (30 yards) from the detonators
- display a hand danger signal to approaching trains from a position of safety.

To stop a train in daylight



To stop a train in darkness or poor visibility

In darkness or poor visibility, shine a red light or wave any light vigorously

COMMUNICATIONS

Refer to NR9935 Frontline Safety Critical Communications.

No matter where you work, reporting a Close Call is vital to improving safety. If you see something with the potential to cause harm raise the alarm on site and make it safe. If it is not safe to continue work then stop. Once the hazard has been removed or made safe then report it. The more data we receive about Close Calls the smarter we can be in preventing accidents nationally.

There are different numbers to call depending on who you work for. Your manager will be able to tell you what the number is for your organisation

Safety Central - The site is your one-stop shop of safety information, advice, resources and useful contacts, designed to promote consistency and best practice across the whole rail industry.

http://safety.networkrail.co.uk/

There are two ways to report safety concerns. Your first step should be to tell your supervisor or sponsor. If this isn't possible, you can contact CIRAS - the railway's confidential reporting service - **www.ciras.org.uk**

The purpose of this Keypoint Card is to act as a reminder only. If you are unsure about any issue relating to the information given here, you must refer to the appropriate module of the Rule Book GE/RT 8000 Series or Handbook.

In supplying this document, Network Rail makes no warranties, expressed or implied, that compliance with all or any documents it issues is sufficient on its own to check safe systems of work or operation.

Users are reminded of their own duties under health and safety legislation.

NETWORK RAIL, THE QUADRANT MK: ELDER GATE,
MILTON KEYNES MK9 1EN
WWW.NETWORKRAIL.CO.UK