

**GE/RT8000/T6**  
**Rule Book**

**Module T6**

# Walking as a group and working on or near the line

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You will need this module if you are required to walk as part of a group or work on or near the line or you are acting as a:

- site warden
- lookout.

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# 1 Part A Personal safety

## When the instructions in this module apply

*The people responsible: all employees*

### all employees

If you are a member of a group which is to **walk** or **work** on or near the line, a controller of site safety (COSS) will be appointed to take charge of the arrangements to make sure the work group, including lookouts, is not put in danger by passing trains or movements. This includes the arrangements for:

- entry to and exit from railway infrastructure
- walking on or near the line
- walking to or from a site of work
- setting up and withdrawing protection or warning arrangements
- carrying out work.

As a member of a group, you must meet the requirements in section 5 of module G2 *Personal safety when walking on or near the line, or when on the lineside.*

## 2 Definitions

*The people responsible: all employees*

The following terms are used when work is being carried out on or near the line:

all employees

### a) Green zone

A site of work on or near the line within which there are no train movements.

The only exception to this is within an engineering supervisor's (ES) work site for movements of engineering trains or on-track plant. These movements will be made at walking pace.

### b) Red zone

A site of work on or near the line, which is not protected from train movements.

### c) Protection controller (PC)

A PC is appointed when:

- work is being carried out which is protected, as shown in module T2 *Protecting engineering work or a hand trolley on a line not under possession*, and
- there is more than one work group sharing the same protection.

The PC is responsible for arranging the protection of the line.

#### **d) Possession**

A line is under possession when the arrangements shown in module T3 *Possession of a line for engineering work* have been carried out to block the line to the normal passage of trains.

The only movements allowed within a possession are on-track plant and engineering trains as shown in module T11 *Movement of engineering trains and on-track plant under T3 arrangements*.

Possession limit boards normally indicate the limits of a possession.

#### **e) Person in charge of the possession (PICOP)**

The PICOP is responsible for:

- carrying out the arrangements with the signaller for taking and giving up the possession
- arranging the protection of the possession
- authorising the movement of engineering trains and on-track plant as shown in module T11 *Movements of engineering trains and on-track plant under T3 arrangements*
- authorising the ES of each work site to start work.

Once the possession is taken, the line concerned is blocked to the normal passage of trains and is under the control of the PICOP.

#### **f) Work site within a possession**

A portion of line within a possession where work is taking place is called a work site. An ES is in charge of each work site.

# Part A 2 section

## **g) Engineering supervisor (ES)**

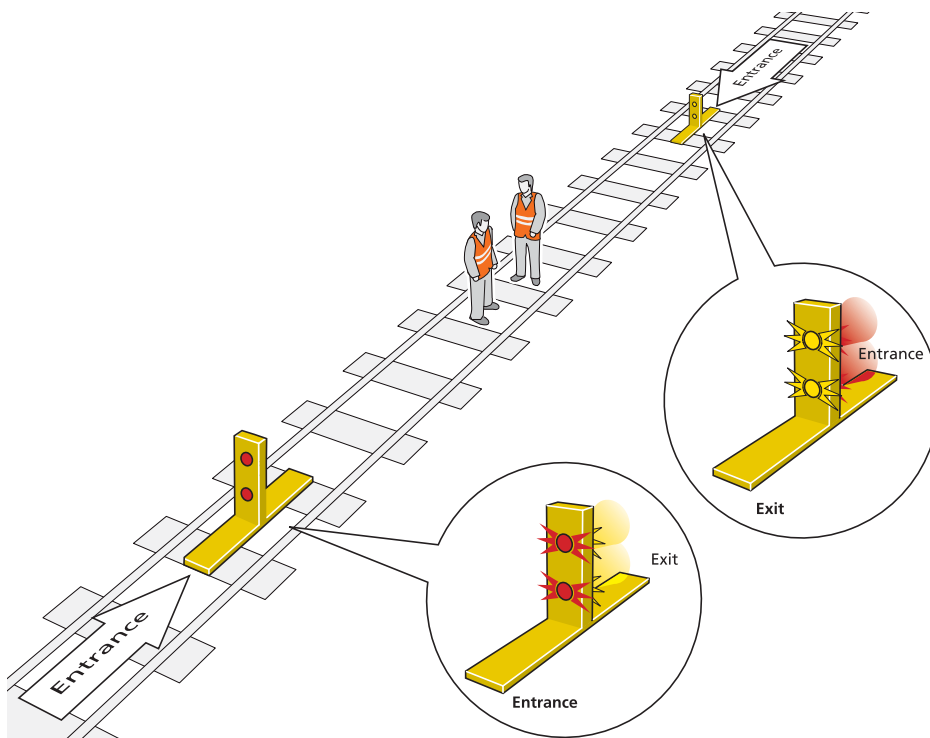
The ES is responsible for:

- a work site within a possession
- setting up marker boards to indicate the limits of that work site
- authorising the movement of engineering trains and on-track plant as shown in module T11 *Movements of engineering trains and on-track plant under T3 arrangements.*

### h) Marker boards

A marker board is yellow, double-sided and has two flashing red lights on one side to indicate the entrance to the work site and two flashing yellow lights on the other to indicate the exit from the work site.

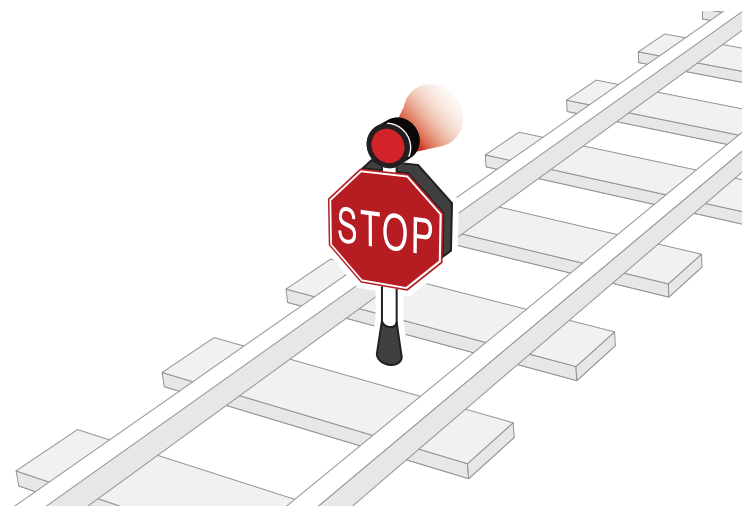
The diagram below shows how marker boards are arranged.



**i) Possession limit board**

A possession limit board is double-sided and has a steady or flashing red light displayed in both directions and the word STOP in white letters on a red octagonal sign.

A possession limit board looks like this:



**j) On-track plant (OTP)**

This includes:

- road-rail vehicles (RRV)
- rail-mounted maintenance machines (RMMM)
- road-rail recovery vehicles (RRRV).

### **k) Single line working**

Single line working may be introduced when there is engineering work or an obstruction on the line if one of the following applies:

- One line of a double line has become blocked and it is necessary for all trains travelling in either direction to pass over the one remaining line.
- If there are more than two running lines and all lines in one direction are blocked, single line working may be introduced on one of the lines that are still open to traffic.
- When both lines of a double line are blocked, single line working may be introduced over one of these lines when working trains to and from the point of obstruction.

### **l) Authorising movements of engineering trains and on-track plant - possessions**

All movements of engineering trains and on-track plant within a possession are authorised as follows:

#### **Entering or leaving the possession**

All movements entering the possession are authorised by the PICOP.

All movements leaving the possession are authorised by the signaller.

#### **Within the possession**

All movements outside a work site within the possession are authorised by the PICOP.

Movements within or entering a work site indicated by marker boards are authorised by the ES.

## Part A 2 section

### **Controlling movements within the possession and during loading and unloading vehicles**

After an engineering train has been authorised to move, it must be controlled as shown in module SS2 *Shunting*.

However, when vehicles are being loaded or unloaded, movements will be controlled by the person in charge of this activity as shown in module T9 *Loading and unloading rail vehicles during engineering work*.

#### **m) Work that may endanger trains on a line not under possession**

The COSS will make sure the line is protected to prevent the approach of trains on the affected line before work starts when:

- work is being carried out on or near the line, and
- that work may endanger the safety of trains on a line which is not under possession.

The instructions for stopping the passage of trains are shown in module T2 *Protecting engineering work or a hand trolley on a line not under possession*.

# 3

## Walking or working with a controller of site safety (COSS)

*The people responsible: all employees*

### 3.1 When a COSS is appointed

**all employees**

The COSS must be:

- certified as competent to act as a COSS
- aware of any local features at the site of work that will affect the safe system of work to be set up.

### 3.2 If the appointment of the COSS has not already been arranged

**all employees**

If a COSS has not already been appointed, one must be appointed before you and the group start walking or working.

### 3.3 If there are two or more groups working at the same location

**all employees**

If there are two or more groups working at your location, a separate COSS will be appointed to take charge of each group.

# Part A 3 section

## 3.4 How the COSS will be identified

The COSS will wear an armband on the left arm or a badge on the upper body, with COSS in white letters on a blue background.

all  
employees

The COSS must show you identification and a valid certificate of competence before you go on or near the line.

You must make sure you know who the COSS is and you see the COSS's identification and certificate of competence before you go on or near the line.

## 3.5 COSS to stay with the group

The COSS is required to stay with your group until:

- the work has been finished and everyone in the group is clear of the line, or
- the COSS is relieved of duty by another person who is competent to act as a COSS.

all  
employees

After being relieved of duty, the COSS will point out to you the COSS who is to take charge.

### 3.6 Responsibilities of the COSS

#### a) Competence of members of the group

**all  
employees**

The COSS will make sure each person in your group has the correct certification.

#### b) Hazards

The COSS will make sure you know about hazards at the site of work, for example:

- limited sighting conditions
- limited clearances
- poor underfoot conditions
- noise from sources next to or near the railway
- other local features which may affect the safe system of work, such as converging routes or points.

If you are working on an electrified line, the COSS will make sure you are aware of the hazards from the conductor rails or overhead lines.

**c) Safe system of work**

The COSS is responsible for making sure a safe system of work is put in place, so that you are not put in danger from any passing train or movement. This safe system of work will include all activities, including walking to and from the site and setting up the safe system of work.

all  
employees

Before you walk as a group to a site of work, or start work, the COSS will brief you about the safe system of work. You must sign RT9909 COSS Record of Arrangements and Briefing Form (see example on pages 18 and 19) to show that you understand the safe system of work.

If there is a change in the conditions at the site of work, the COSS will, if necessary:

- change the safe system of work to meet the new conditions, and
- tell you about any of these changes.

You must make sure you fully understand the new arrangements.

**d) If there are any doubts about the safe system of work**

If there are any doubts about whether the group you are in can continue to work safely, the COSS will tell you to:

- stop work, and
- move to a position of safety immediately.

Walking as a group and  
working on or near the line

Part A **3** section

**Example of RT9909 COSS Record of Arrangements and Briefing Form (Side 1)**

<b>RT9909</b>				
<i>December 2003 (Side 1 of 2)</i>				
<b>COSS RECORD OF ARRANGEMENTS AND BRIEFING FORM</b>				
<b>GENERAL INFORMATION</b>				
Name of COSS		Sentinel Card No.		
Date				
Nature of Work *				
Time work started		Time work finished		
Location and lines affected *				
How to contact the Signaller in an emergency *				
Lines at the site *				
Direction (any SLW etc?)				
Open or blocked? *				
Speed (line or T/ESR)				
Access and egress arrangements to/from working area *				
Hazards associated with access/egress (conductor rails, tripping, vegetation, overhead cables or OLE, etc.) *				
Hazards associated with the site (conductor rails, tripping, vegetation, overhead cables or OLE, buried services, etc.) *				
Limits of the working area and how these are defined *				
Permit to work arrangements (AC or DC lines) if appropriate. If no permit to work is held electrified lines are LIVE *				
<b>SAFE SYSTEM OF WORK</b>				
Tick the relevant box. Only tick 'Planned' column if <b>you have been provided with a planned safe system of work</b>	Walking on or near the line to/from the working area		Whilst carrying out the work	
	Planned *	Actual	Planned *	Actual
Safeguarded Green Zone				
Fenced Green Zone				
Separated Green Zone				
Red Zone with ATWS				
Red Zone with TOWS				
Red Zone with LOWS				
Red Zone with Pee Wee				
Red Zone with Lookout(s) only				
Reason and authority for change from planned safe system of work				

Part A **3** section

**Example of RT9909 COSS Record of Arrangements and Briefing Form (Side 2)**

<b>RT9909</b> <i>December 2003 (Side 2 of 2)</i>			
<b>GREEN ZONE WORKING ONLY (complete as applicable) *</b>			
Type of fence (fenced only)			
Distance from line (fenced only)			
Separation distance (separated only)			
How Site Warden will give the warning (separated only)			
<b>RED ZONE WORKING ONLY</b>			
How the warning will be given *			
Location(s) of position(s) of safety			
<b>Details of any SEPARATED GREEN ZONE Site Wardens, RED ZONE ATWS Operator or RED ZONE Lookouts (TOWS, LOWS, Pee Wee, distant, intermediate, site, machine or touch)</b>			
Name	Sentinel Card No.	Location	Role
<b>DECLARATION (Each member of the group to sign to confirm that they have understood the briefing)</b>			
Signature	Sentinel Card No.	Signature	Sentinel Card No.
<b>COSS DECLARATION. Each member of the group to sign to confirm that they have understood the briefing</b>			
Signature			

\* Where the work is pre-planned, these parts of the form should be completed before it is provided to the COSS

# 4 Working in a green zone

*The people responsible: all employees*

## 4.1 Before the work starts

**all  
employees**

Before you start walking or working, the COSS will brief you. This may include a briefing before you walk to the site of work.

The COSS will brief you about:

- the arrangements for your protection
- which lines are part of the green zone
- which lines stay open to train movements
- details of any line or lines which have a temporary or emergency speed restriction imposed specially
- where it is safe for you to work
- the limits of the safe working area which you must not go beyond and how these are identified
- who will act as a site warden (if one is appointed).

The site warden is responsible for:

- making sure no-one in your group moves beyond the safe working limit arranged by the COSS
- warning anyone who does so to move back.

When you have had your briefing from the COSS, you must only start walking or working when the COSS tells you it is safe to do so.

# Part A4 section

## 4.2 During the work

When you are working, you must make sure you stay within the safe working area as arranged by the COSS at your briefing.

**all  
employees**

If site wardens have been appointed, you must:

- immediately tell the COSS if you cannot see the site warden, or you are not able to hear the warning given by the site warden
- never distract the site warden.

If the COSS told you at the briefing there is a fence marking the safe working limit, you must:

- stay on the safe side of the fence
- not lean on or over the fence
- not lean objects against the fence.

You must immediately move back into the safe working area if you are told to do so by the site warden or anyone else.

This instruction applies at all times not just when a train is approaching.

## 4.3 When the work is completed

After the work is completed, the COSS will tell you about the safe system to use if you have to walk on or near the line from the site of work to the point where you are to move clear of the line.

**all  
employees**

You must not start walking until the COSS tells you it is safe to do so.

# 5 Working in a red zone

*The people responsible: all employees*

## 5.1 Before the work starts

### all employees

Before you start work, the COSS will brief you. This may include a briefing before you walk to the site of work.

The COSS will tell you how a warning of an approaching train will be by one of the following:

- Automatic track warning system (ATWS).
- Train operated warning system (TOWS).
- Lookout operated warning system (LOWS).
- Pee wee.
- Lookout with warning given by horn, whistle, touch or shouting.
- Lookout giving a warning using the warning device provided on mechanical plant.

The COSS will also tell you:

- the positioning of any lookout
- the position of safety you must go to when the warning is given.

When you have had your briefing from the COSS, you must only start work when the COSS tells you it is safe to do so.

## 5.2 During the work

### a) ATWS, LOWS or pee wee

When any of these systems give you a warning, you must:

- immediately move to a position of safety
- stay in the position of safety until the COSS tells you it is safe to start work again.

all  
employees

### b) TOWS

When TOWS is in use and the continuous warning is given, or the lookout gives a warning or there is no sound at all, you must:

- immediately move to a position of safety
- stay in the position of safety until the COSS tells you it is safe to start work again.

### c) If the warning is given by a lookout

When the lookout gives you a warning, you must:

- acknowledge the warning by raising an arm above your head
- immediately move to a position of safety
- stay in the position of safety until the COSS tells you it is safe to start work again.

If you can no longer see the lookout or you think you might not be able to hear the lookout's warning, you must:

- immediately move to a position of safety
- tell the COSS why you have done so.

You must not distract the lookout. If you do, it could put everyone in your group at serious risk of death or injury.

# 6 Acting as a site warden

*The person responsible: **site warden***

## 6.1 Competence and identification

### a) Competence

**site  
warden**

You must be certified as competent to act as a lookout. When carrying out your duties, you must have with you a current certificate of competence.

### b) Identification

You must wear an armband on your left arm or a badge on your upper body with SITE WARDEN in blue letters on a white background.

You must show your armband or badge to the group you will be watching before work starts. This must be clearly visible at all times when you are acting as a site warden but not at any other time.

If you are also acting as a COSS, you must also wear the identification for a COSS as shown in section 3.4 of this module.

You can act as a COSS as well as a site warden, if you are competent to do so, but you must not take any other part in the work.

# Part A 6 section

## 6.2 Equipment

You must have the following equipment with you:

- A whistle or horn.
- A blue and white chequered flag (if required).
- A track circuit operating clip, if you are working on a track circuited line.
- At least six detonators.
- A red flag during daylight.
- A hand lamp that can show a red light (during darkness, fog or falling snow or in a tunnel).

site  
warden

## 6.3 Where to position yourself

The COSS will tell you where to position yourself. You must stay there until either:

- you are told by the COSS you are no longer required, or
- you are replaced by another site warden.

site  
warden

#### 6.4 Action to take if someone is in a position of danger

**site  
warden**

You must keep a constant watch over the people working in the group to make sure no-one moves beyond the safe working limit laid down by the COSS.

If anyone in the group does move beyond the safe limit, even if this is only for a very short distance, you must:

- shout a warning to the person concerned
- if necessary, repeat the warning until the person has returned to within the safe limits.

If anyone does not react to your shout, you must give a series of short sharp blasts on your horn or whistle.

You must always shout a warning to anyone who moves beyond the safe limits. This does not just apply only when a train is approaching, but at **all** times.

### 6.5 If you cannot give an adequate warning

You must tell everyone in the group to immediately move to a position of safety which is well within the safe limit laid down by the COSS if:

site  
warden

- you are not happy about the method of working because people in the group keep moving outside the safe limits, or
- someone in the group has moved too far away from you so that you cannot clearly see if the person moves into a position of danger, or
- you need a break from your duties, or
- you are not able to continue your duties for any other reason.

When everyone in the group is in a position of safety, you must tell the COSS the reason why you have stopped the work.

#### Staying alert

You must stay alert at all times as the lives of those in your group depend on this. You must:

- switch off any mobile phone you may have with you unless you are also the COSS and require it to stay switched on to maintain communication with the PC or signaller
- watch the group carefully
- not allow yourself to become distracted
- not take part in the work being carried out
- have no other responsibilities.

# 7

## Acting as a lookout

*The person responsible: **lookout***

### 7.1 Competence and identification

#### a) Competence

#### **lookout**

You must be certified as competent to act as a lookout. When carrying out your duties you must have with you a current certificate of competence.

#### b) Identification

You must wear an armband on your left arm or a badge on your upper body with the words LOOKOUT in red letters on a white background.

You must show your armband or badge to the group you will be warning before work starts. This must be clearly visible at all times when you are acting as a lookout but not at any other time.

### 7.2 Equipment

#### **lookout**

You must have the following equipment with you:

- A whistle or horn.
- A blue and white chequered flag (if required).
- A track circuit operating clip, if you are working on a track circuited line.
- At least six detonators.
- A red flag during daylight.
- A hand lamp that can show a red light (during darkness, fog or falling snow or when in a tunnel).

### 7.3 Where to position yourself

The COSS will tell you where to position yourself. You must stay there until either:

lookout

- you are told by the COSS that the work is finished, everyone is clear and you are no longer required, or
- you are replaced by another lookout.

You must not accept the role of lookout if you feel you cannot stay alert.

### 7.4 During the work

The COSS will tell you to take on one of the roles shown in section 7.5 to 7.8 so you can give a warning of approaching trains to those working at the work site.

lookout

### 7.5 LOWS or pee wee lookout

A LOWS or pee wee lookout is provided to give warning of an approaching train.

lookout

If you are a LOWS or pee wee lookout and you see a train approaching, you must activate the equipment to give the warning.

### 7.6 Site lookout

#### a) When a site lookout is provided

A site lookout is provided to warn the group of approaching trains.

lookout

**lookout**

**b) Immediate action**

When you see a train approaching or the distant or intermediate lookout is waving a blue and white chequered flag from side to side above the head (indicating a train is approaching), you must **immediately** give a warning to the group.

**c) Giving warning by horn, whistle or shouting**

You must give a warning by:

- sounding your horn or whistle, and
- shouting if necessary.

If anyone you are warning does not acknowledge your warning by raising one arm and does not move to a position of safety, you must give a series of short sharp blasts (*which means an urgent warning*) on the horn or whistle, until everyone has moved to a position of safety.

**d) Giving warning by touch**

You must immediately touch each person you are responsible for warning. You must repeat the warning to anyone who does not immediately move to a position of safety.

**e) Acknowledging a warning given by a distant or intermediate lookout**

When you have given the warning to the group and you have seen that everyone is moving to a position of safety, you must acknowledge the handsignal given by the distant or intermediate lookout by waving your blue and white chequered flag from side to side above your head.

If there is more than one site lookout, you must carry on giving this handsignal until the distant or intermediate lookout has seen that all the site lookouts have acknowledged the handsignal.

## 7.7 Distant lookout

A distant lookout is provided (if required) to warn the site lookout that a train is approaching.

lookout

When a train approaches, you must, if you are using handsignals to give warning of an approaching train, handsignal to the site lookout (or intermediate lookout if one is provided), by waving your blue and white chequered flag above your head from side to side. You must do this until it is acknowledged in exactly the same way by the site or intermediate lookout.

If there is more than one site lookout, you must make sure you receive an acknowledgement from each lookout.

## 7.8 Intermediate lookout

An intermediate lookout is provided (if required) between the distant and the site lookout to relay the distant lookout's warning to the site lookout.

lookout

When you see the distant lookout giving you a handsignal indicating a train is approaching, you must:

- acknowledge the handsignal by waving your blue and white chequered flag above your head from side to side
- give the same handsignal to the site lookout until it is acknowledged in exactly the same way.

If there is more than one site lookout, you must make sure you receive an acknowledgement from each lookout.

## 7.9 Working at night, or in a tunnel, or during daylight when visibility is poor

You will not be asked to work as a distant or intermediate lookout when work is being carried out at night, or in a tunnel, or during daylight when visibility is poor.

lookout

### **7.10 If you cannot give an adequate warning**

#### **lookout**

You must immediately give a warning (in the same way as you would if a train was approaching) in any of the following situations:

- Someone in your group is moving too far away.
- You are not able to see the distant (or intermediate) lookout.
- You need a break in your duties.
- You are not able to give an adequate warning for any other reason.

When everyone in the group is in a position of safety, you must tell the COSS the reason why you have stopped the work.

#### **Staying alert**

You must stay alert at all times as the lives of those in your group depend on this. You must:

- switch off any mobile phone you may have with you
- keep a sharp lookout for approaching trains
- not allow yourself to become distracted
- not take part in the work being carried out
- have no other responsibilities.

## 8 Part B General duties

### 8 Work that will affect the safety of the line

*The people responsible: all employees, the person in charge to authorise work to start* **i**

#### 8.1 Before starting work

If work will affect the safety of the line, you must only start work when the COSS tells you it is safe to do so and the person in charge has given permission for work to start. The person in charge may also be the COSS.

**all employees**

This type of work includes:

- using a crane, or other mechanical equipment which will foul or obstruct the line
- placing a hand trolley on the line
- work affecting wires, cables or signalling equipment
- using ladders, digging holes or stacking materials or equipment close to the line or near the edge of a platform
- attaching anything to a railway structure or equipment (such as a bridge, station roof, signal or electrical equipment)
- carrying equipment or materials across or along the line
- felling or trimming trees.



In this instruction, the person in charge who authorises work to start is called the person in charge.

10/07

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## 8.2 Duties of the person in charge

### the person in charge

If the work will affect the safety of the line, you must:

- carry out the appropriate rules and regulations
- make sure a COSS is appointed
- agree with the COSS when the work can start.

You may carry out the duties of the COSS if you hold a current certificate of competence to do so. In this case, you must carry out the instructions in module T7 *Safe systems of work when walking or working on or near the line*.

# 9 Preventing hazards and damage

*The people responsible: all employees*

## 9.1 Tools and materials

You must make sure tools and materials are left clear of the line and are:

- at least 2 metres (2.75 metres if the line speed is over 125 mph) from the nearest rail on which a train is passing unless you are absolutely sure they will not be moved by the slipstream of the passing train
- not left where they obstruct or become a tripping hazard to other people on walking routes, walkways, refuges or recesses.

all  
employees

## 9.2 Ballast and other materials

You must, if possible, make sure ballast or other materials are not allowed to pile up and so interfere with or obstruct signalling or level crossing equipment or the passage of trains.

You must also remove or safely secure any materials that could be placed on the line to cause an obstruction when the work has finished.

all  
employees

## 9.3 Cables

As far as possible, you must not interfere with lineside cables and not allow flammable materials to gather near cable routes.

You must make sure warning notices about high-voltage cables and markers showing the location of cables are not obstructed and firebreaks under cables are kept clear.

all  
employees

#### 9.4 Taking care when using metal equipment

**all  
employees**

You must not place metal measuring tapes or chains across the rails as it might operate a track circuit and change a signal aspect in front of a driver.

You must also not allow:

- any other metal object near signalling equipment, or within 300 mm of an axle counter head, if it might accidentally interfere with its operation
- any other equipment to come within 2.75 metres of any live parts of the AC overhead line equipment unless authorised in the method statement for the work
- any equipment to come within 300 mm of any live conductor rail unless authorised in the method statement for the work.

## Part B 10 section

# 10 Working with cranes or other mechanical equipment that will foul the line

*The people responsible: all employees*

### 10.1 Before starting work

If you are in charge of a crane or other mechanical equipment which will foul a line which has not been blocked, you must only start work when you have been given permission to do so by the person in charge. (See section 8.1 of this module.)

all  
employees

### 10.2 When work has been completed or stopped

When work has been completed or stopped, or you have been told by the person arranging for the line to be blocked to stop work to allow trains to pass, you must:

all  
employees

- move the crane or equipment and secure it clear of the line
- tell that person the line is now clear and safe for trains to pass.

When you have told the person who has arranged for the line to be blocked that the line is now clear and safe for trains to pass, you must not start work again until you are again given permission to do so from that person.

# 11 Working on or near points

*The people responsible: all employees*

## 11.1 Before working on or near, or securing, points

**all employees**

If you are working on or near points and you could be injured by their movement, before you start work you must agree with the signaller:

- which points will be worked on
- how long you will be working on those points
- what position you require the points to be set in (for example, normal or reverse).

You must:

- secure the points by scotch to stop them moving, and
- if they are power-operated, arrange for them to be isolated.

You must take into consideration that trains may continue to run normally over the route for which the points have been set.

## 11.2 When work has been completed or stopped

**all employees**

You must make sure you complete or stop work at the time you agreed with the signaller (to avoid delays to trains). You must then:

- remove any scotches
- restore the points to power operation, if they are power operated
- tell the signaller when you have done this.

## Part B 12 section

# 12 Working with engineering trains or hand trolleys

*The people responsible: all employees*

### 12.1 Riding in the driving cab of an engineering train in connection with a possession

You must not ride in the driving cab of an engineering train unless you have been authorised by the PICOP or ES.

**all employees**

Under no other circumstances must you ride in the driving cab of an engineering train.

If you have been given permission to ride in the driving cab, you must make sure you only speak to the driver to give instructions about the:

- location of work, or
- protection arrangements.

### 12.2 Getting on and off moving vehicles

You must **not**:

- get on or off a moving vehicle unless it is specially designed for continuous slow-speed movement (for example, a high output ballast cleaning machine) and only when it is safe to do so (this amends the instruction in section 4.4 of module G1 *General safety responsibilities*)
- stay in a vehicle which is being moved unless you are sure there is no risk of you being thrown over or falling off
- ride on a vehicle not designed for this purpose (for example, a hand trolley).

**all employees**

### 12.3 Other safety items

**all  
employees**

You must make sure:

- any ballast or stones or other materials are removed from the ledges and underframes of vehicles before they leave an engineering site
- any loose chains, strings, straps and sheets are secured to prevent the risk of damage or injury
- if you are working with a rail, cable or wire train, you stand well clear of rails, cable or wire which is being run out
- if, where you are allowed to do so, you are working on the roof of a train, you **always** face the direction of the movement.

# 13

## When track-patrolling duties are being carried out

*The people responsible: all employees*

### 13.1 Equipment

If you are carrying out track-patrolling duties, you must make sure you have the following equipment with you:

all  
employees

- at least six detonators
- a red flag or a handlamp that can show a red aspect
- a track circuit operating clip (if you are working on a track circuited line).

You do not need to take a track circuit operating clip with you if you are patrolling a line electrified by the fourth-rail system.

If you are patrolling with a lookout, you do not both need to have this equipment with you.

### 13.2 Carrying out an inspection

When you are carrying out an inspection, you must:

all  
employees

- make sure the inspection is done to the required standard
- test all the telephones at any unmanned level crossing to make sure they are working properly.

## Glossary of terms and abbreviations

<b>The term</b>	<b>Includes or means:</b>
<b>Aspect</b>	The indication of a colour light signal that the driver sees.
<b>ATWS</b>	Automatic track warning system. An individual or lineside warning system that can be installed at a site of work to: <ul style="list-style-type: none"><li>• detect an approaching train</li><li>• alert personnel who are on or near the line.</li></ul> It may be installed temporarily for the period of work or it may be installed permanently at a location. This definition does not include TOWS or LOWS.
<b>Axle counter head</b>	A device that detects the passage of a wheel passing over a running line.
<b>Conductor rail</b>	A rail through which electricity is supplied to electric-powered trains.
<b>Detonator</b>	A small disc-shaped warning device, designed to be placed on the railhead for protection and emergency purposes. It explodes when a train passes over it.
<b>Electrified line</b>	A line that is electrified either by 25,000 volts AC overhead lines or by 750 volts DC conductor rails. Local instructions are issued for certain sections of route electrified by 1500 volts DC overhead lines.
<b>Engineering train</b>	Includes an on-track machine.
<b>Level crossing</b>	Any manned, automatic or open crossing shown in Table A of the <i>Sectional Appendix</i> .



**The term**

**Includes or means:**

**LOWS**

Lookout operated warning system. A lineside warning system, used to warn personnel on or near the line about an approaching train. It is operated by a lookout.

**Manned level crossing**

Any of the following level crossings:

- Operated locally by a signaller or crossing keeper (MCB or LC)
- Remotely controlled (RC)
- Closed-circuit television (CCTV)
- Traincrew operated (TMO).

**Overhead line equipment**

Wires, suspended over the railway line for supplying electricity to electric trains. This includes associated:

- fittings
- insulators
- feeders
- switches
- jumpers
- return conductors.

**Protection**

Ways of making sure that a line is protected. This includes keeping signals at danger, placing detonators on the line, using a track circuit operating clip and showing a hand danger signal.

**Running line**

A line as shown in Table A of the *Sectional Appendix* as a passenger line or as a non-passenger line.

**Single line**

One line is available for movements in both directions.

**Station**

Terminal, depot, yard or halt.

## Glossary of terms and abbreviations

**The term**

**Includes or means:**

**TOWS**

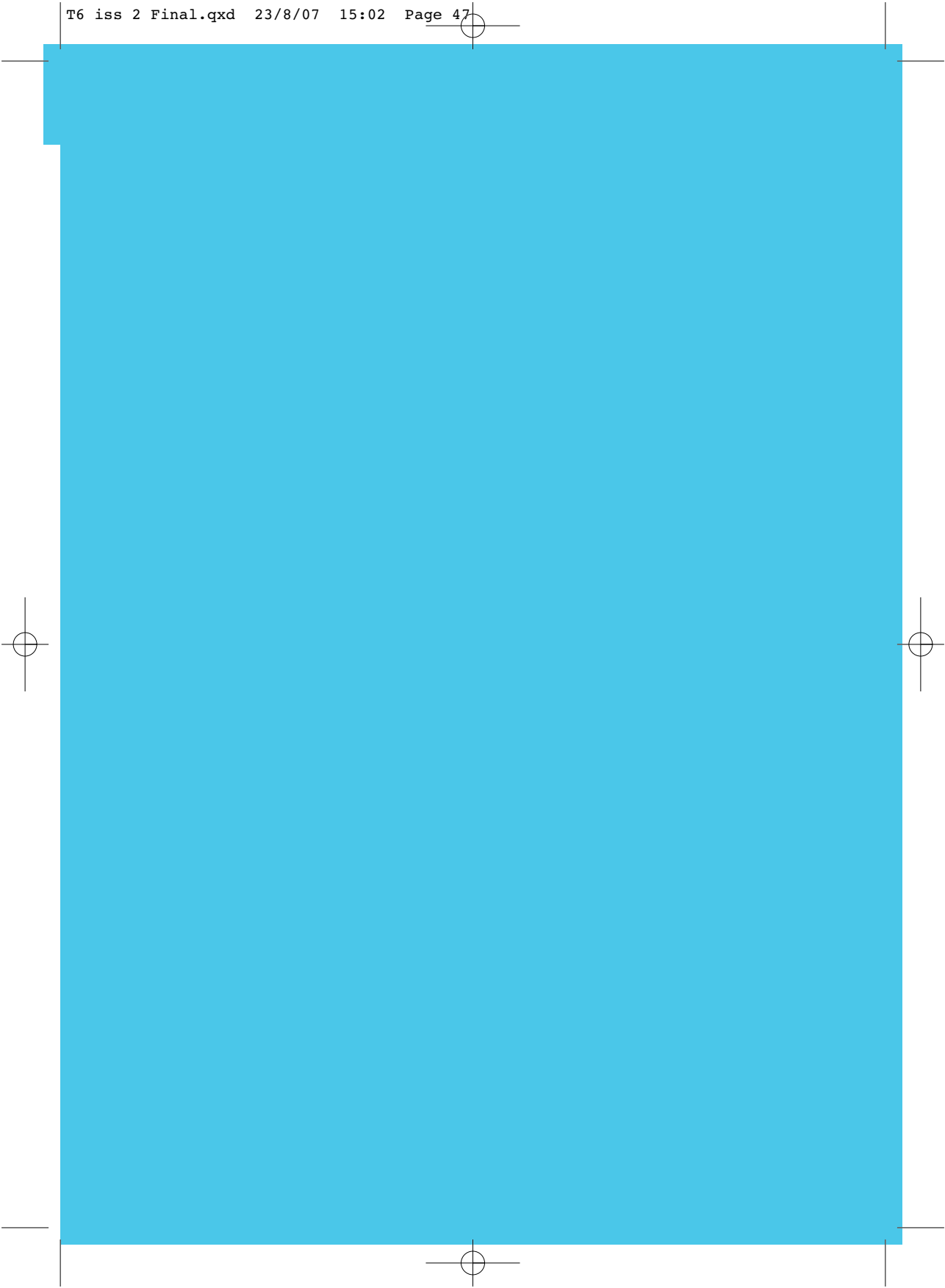
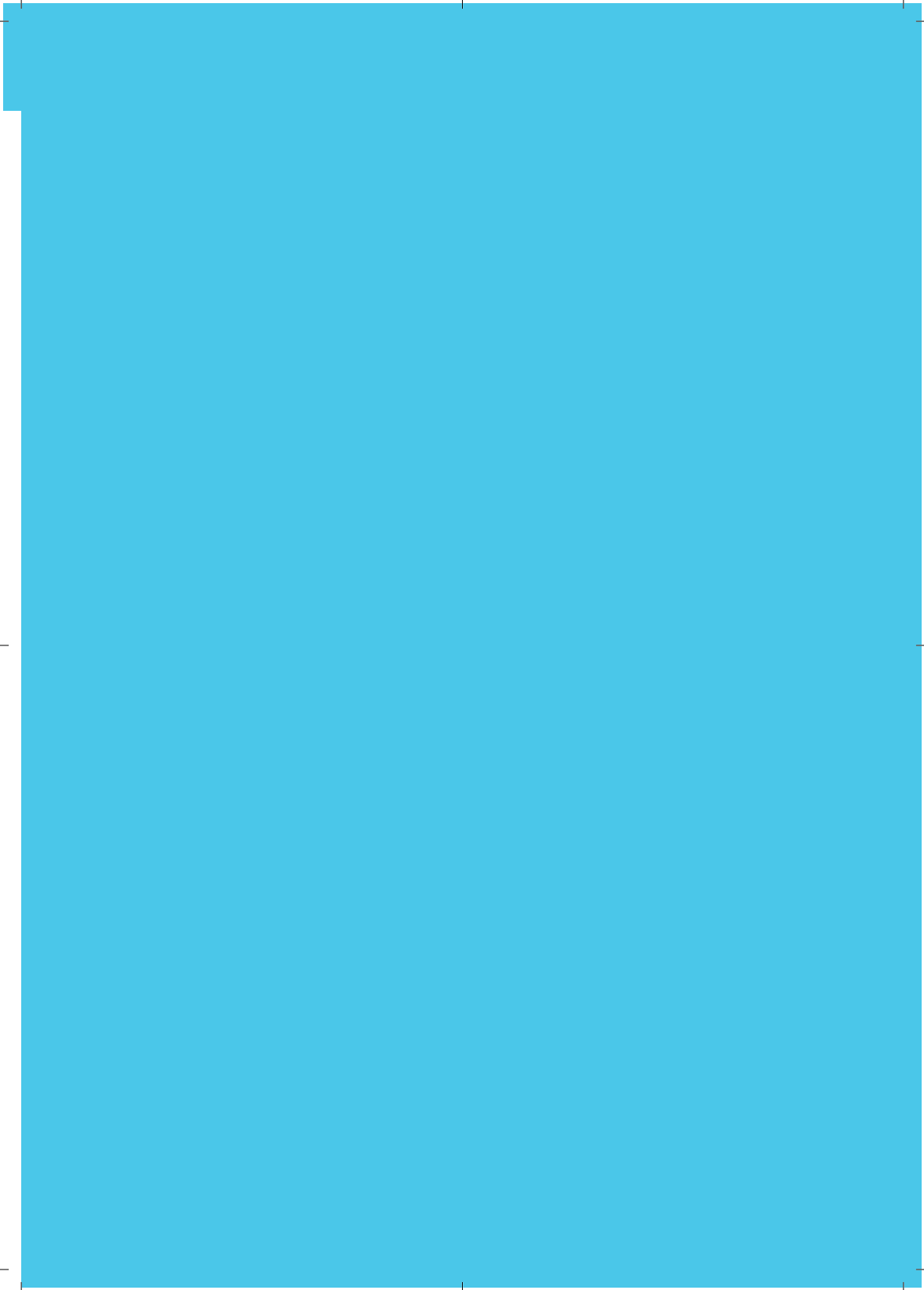
Train operated warning system. An audible warning system at locations listed in the *Sectional Appendix*. When switched on, it is used to warn personnel on or near the line about an approaching train.

**Track circuit  
operating clip**

A device which, in an emergency can be placed on top of each running rail to operate the track circuit and protect an obstruction.

**Train**

Light locomotive, self-propelled rail vehicle or road-rail vehicle in rail mode.





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