

# Personal Track Safety



**07**

**Communication &  
emergencies**

# Communication & emergencies

## Introduction



To work safely on the railway, we all need to be able to give and receive clear messages and instructions.

Here's Steve, the Controller of Site Safety (COSS), to tell you what you'll cover in this PDF.

“

Communicating in the right way is vital. We need to be accurate, brief and clear (remember A,B,C).

We have rules about the way we give each information and messages. It's very important to take these rules seriously. If we don't, terrible accidents can occur. As, I'm afraid, you're about to see.

”

# Communication & emergencies

## Say again

**Good communication isn't just used for getting the job done properly and safely.**

**Poor communication can put lives at risk.**

Here's an example.

At the weekends, Jezz and his young daughter, Sally, enjoyed having fun in the kitchen making pancakes for breakfast.

On this particular day, Jezz dropped Sally off at the swimming pool then headed to work at Network Rail. He worked for a crew that worked on the tracks, led by Rob, the COSS.

The crew had to conduct some vital maintenance in a tunnel. Rob called the Signaller to report they were on the **up line**. The Signaller was his old friend Mike so there was some friendly banter.

After some lively conversation, Mike marked down that the crew was on the **down line**.

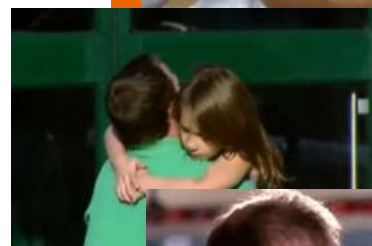
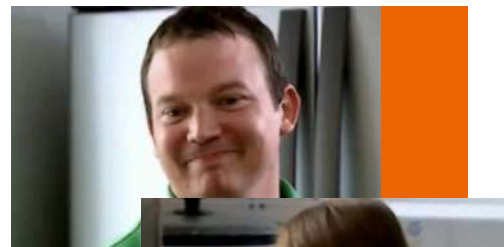
Rob wanted to save time so asked Mike for a favour. Because they knew each other very well, Mike allowed Rob to delay filling in the form until after the work was done.

Rob ended the phone call and work started on the up line. Suddenly a train rushed out of the tunnel – on the up line! Rob was horrified and shouted a warning to his crew. The men scattered off the tracks but the warning came too late for Jezz, who was hit on the head.

The accident was traumatic for the entire crew to witness. The paramedics saved Jezz's life but the brain injury he sustained changed the quality of his life forever. He cannot work and can't make pancakes or even toast for his family any longer.

Now he's in a wheelchair and his daughter, Sally, helps to feed him before she goes to school.

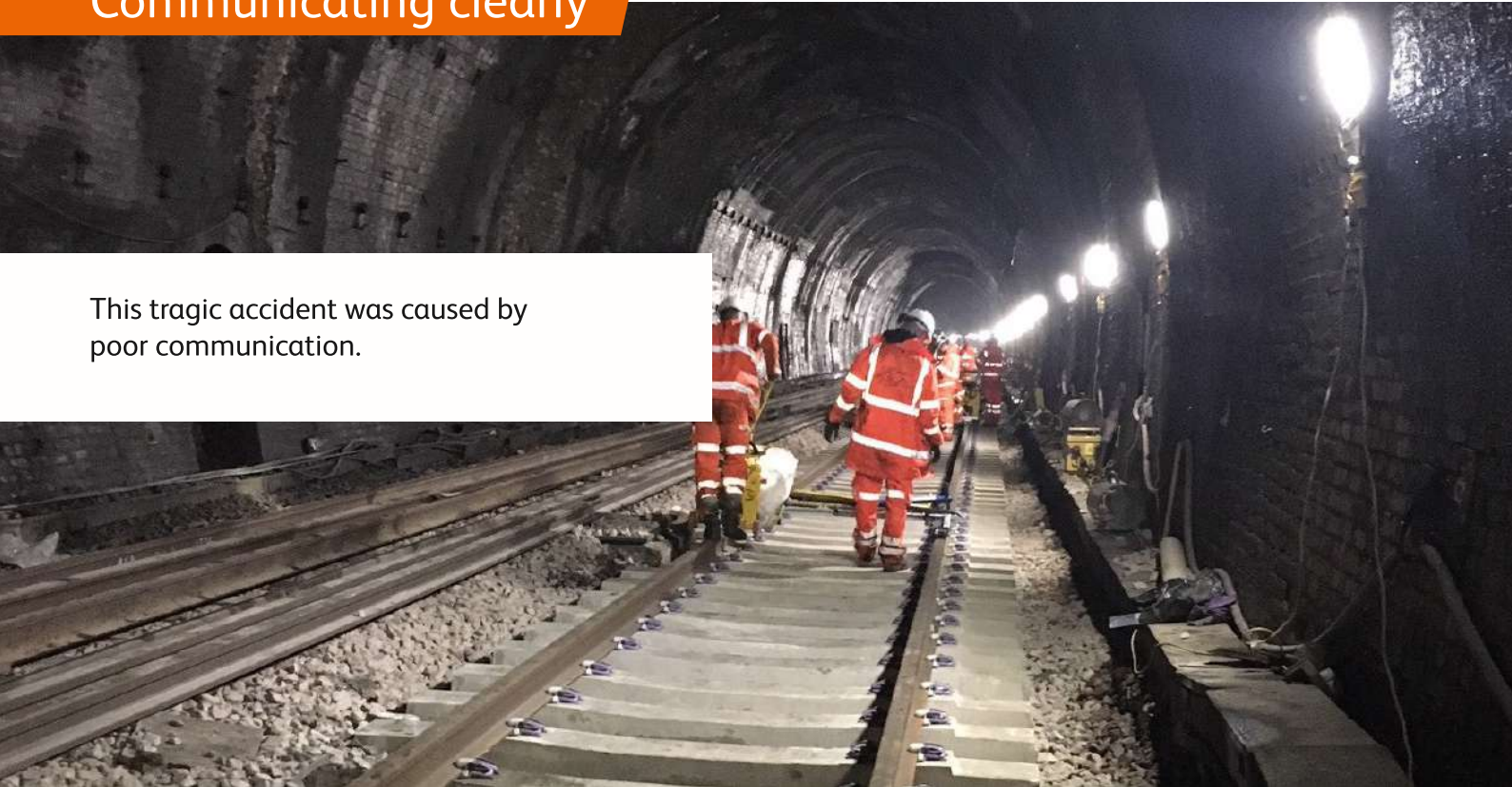
What do you think went wrong with the job that day?



# Communication & emergencies

## Communicating clearly

This tragic accident was caused by poor communication.



There were three issues here:

- The communication between Rob, the COSS, and Mike, the Signaller, was **too informal**. They knew each other and the conversation was friendly rather than **clear and structured**.
- The COSS should have said exactly where the team would be – using signal numbers to reference their position. Because he didn't, the Signaller blocked the wrong line. The Signaller should have **repeated back** what the COSS said to make sure he had it clear.
- The COSS tried to save time by asking the Signaller to let him **fill in the form later**. The Signaller had 'lead responsibility' in the conversation and should have refused.

# Communication & emergencies

## Lead responsibility

As you've just seen, the Signaller had 'lead responsibility' in that situation. The people in these roles are the most likely to be involved in a safety conversation. Depending on who they're talking to, they might each take lead responsibility in that conversation.



An Electrical Control Operator (ECO) always has lead responsibility when talking to anyone. This means that they help the person they're talking to pass on their information clearly and accurately. They then make sure that any errors have been corrected, and that both speakers know what's going to happen next.



A Signaller has lead responsibility when talking to anyone except an ECO. As you've read, Mike, the Signaller in this case didn't take responsibility. He let the COSS lead the conversation. He didn't repeat back what was needed, or check the exact location of the team.



A COSS or Safe Work Leader has lead responsibility when talking to the Lookout or Site Warden, and anyone else in their group. Part of that responsibility is ensuring that they've given an adequate safety briefing – something else that didn't happen in the incident when Jezz was seriously injured.

# Communication & emergencies

## Barriers to communication



Barriers to communication include:

- Informality
- Not listening properly
- Use of jargon
- Different accents/dialects
- Environmental conditions e.g. noise, bad weather.

Being too informal can be confusing. People mix friendly banter with important information – which can get lost.

Sometimes people talk over each other and don't listen properly.

Slow down and give structured, clear information.

If you don't understand someone's accent, ask them to repeat what they said.

Use the phonetic alphabet, (see the next page).

# Communication & emergencies

## The phonetic alphabet

When communicating letters, it's best to spell them out using the phonetic alphabet. You'll need to do this when giving your location using signal numbers. Instead of saying the letter 'A' for example, the word 'Alpha' is used for clarity. You need to memorise the phonetic alphabet as you see it below. You might find it helpful to use an image or thought to remember them by. You should use your own, but we've suggested some if you need help.

### Phonetic Alphabet

Memorise each letter.



#### A for Alpha

'Alpha' is the start of the word 'alphabet'.



#### B for Bravo

Think of a person being applauded at a show. Bravo is an Italian word used to say "Well done" when someone has finished a performance.



#### C for Charlie

Think of the comedian Charlie Chaplin.



#### D for Delta

Think of a river delta, which is a part of a river that opens out into the sea.



#### E for Echo

Think of an echoing sound.



#### F for Fox

Think of a fox, trotting.



#### G for Golf

Think of a golf course.



#### H for Hotel

Think of a hotel you've stayed in.



#### I for India

Think of the country, India.

# Communication & emergencies

## The phonetic alphabet



### J for Juliet

Think of the character in the Shakespeare play, Romeo and Juliet.



### K for Kilo

Think of a kilogram weight.



### L for Lima

Think of Lima, the capital city of Peru.



### M for Mike

Think of microphones, which are commonly called **mikes** for short.



### N for November

Think of the month of November.



### O for Oscar

Think of the film world's Academy Award ceremony.



### P for Papa

Think of a child calling their father 'papa'.



### Q for Quebec

Quebec is a large province in Canada.



### R for Romeo

Think of the character in the Shakespeare play, Romeo and Juliet.



### S for Sierra

Think of the popular car.



### T for Tango

Think of the tango, a popular Spanish dance.



### U for Uniform

Think of a person in uniform.



# Communication & emergencies

## The phonetic alphabet



### V for Victor

Think of someone winning a race.



### W for Whisky

Think of the popular drink.



### X for X-ray

Think of the medical procedure.



### Y for Yankee

Think of the American baseball team.



### Z for Zulu

Think of the African tribe.

# Communication & emergencies

## Using the phonetic alphabet



Let's take a look at an example of the phonetic alphabet in action.

This is how 'Birmingham' is said using the phonetic alphabet:

Bravo  
India  
Romeo  
Mike  
India  
November  
Golf  
Hotel  
Alpha  
Mike

# Communication & emergencies

## Pronouncing numbers and letters



Look at these groups of numbers and letters.

This is how you would pronounce each one.

“mike papa  
one four zero”

**MP140**

“one zero five”

**150**

“sierra hotel  
one two zero”

**SH120**

# Communication & emergencies

## Methods of communication

There are three main ways we communicate on the railways.



### The face-to-face conversation.

This is what you're most likely to have when you're working on track. There'll be chatter of course, but the COSS or Safe Work Leader must also ensure that everyone is briefed fully and knows what to do if anything goes wrong.



### The radio.

Radio links sometimes break up – it helps to speak a bit more slowly than you usually do. Don't shout – you'll just distort the sound. If you're using a radio, press the 'transmit' button fully before you speak and don't release it until you've finished.

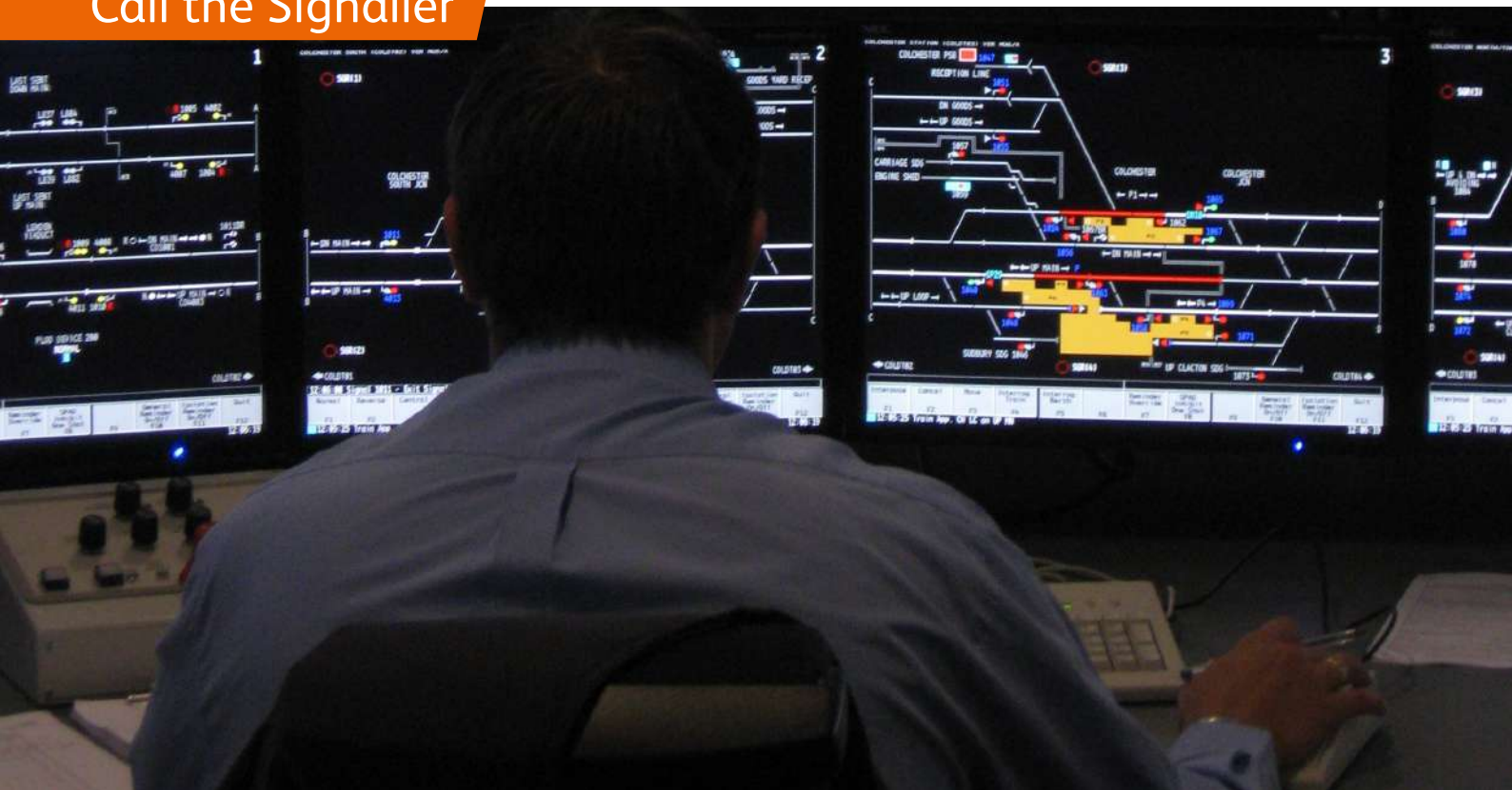


### The phone.

As you found out in the **Railway orientation** section, there are many types of phones on the railways. So you need to know what each is used for – especially if you need to report an emergency.

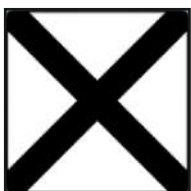
# Communication & emergencies

## Call the Signaller



Do you know which phones could you use to get straight through to the Signaller?

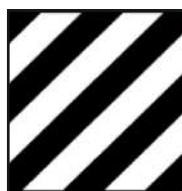
Any of these three.



Lineside  
phone



Level crossing  
phone



Signal post  
telephone

The lineside, level crossing and signal post phones put you straight through to the Signaller.

You can also use the general phone and emergency phone to contact the Signaller by dialling their number (which will be listed on the phone). The electrification phone puts you straight through to the ECO.

# Communication & emergencies

## Making emergency calls: Key phrases



Now that you've got an idea of how to communicate clearly, let's apply what you've learned to making emergency calls, as it's vital to be clear. First there are several standard phrases you'll need to use.

### **“This is an emergency call”**

In an emergency, this is the first thing you must say when your phone or radio call is answered. It tells the other person that they will need to take action straight away to prevent death, injury or damage.

### **“Repeat back”**

This phrase tells the person you are speaking to to repeat your message back to you, so that you can both be sure what is happening.

### **“Correction”**

Say this when you've made a mistake and want to correct the word or phrase you've just said.

### **“Line blocked”**

Use this to describe a line that has an obstruction on it. Don't use “Not clear” or any other phrase.

### **“Over”**

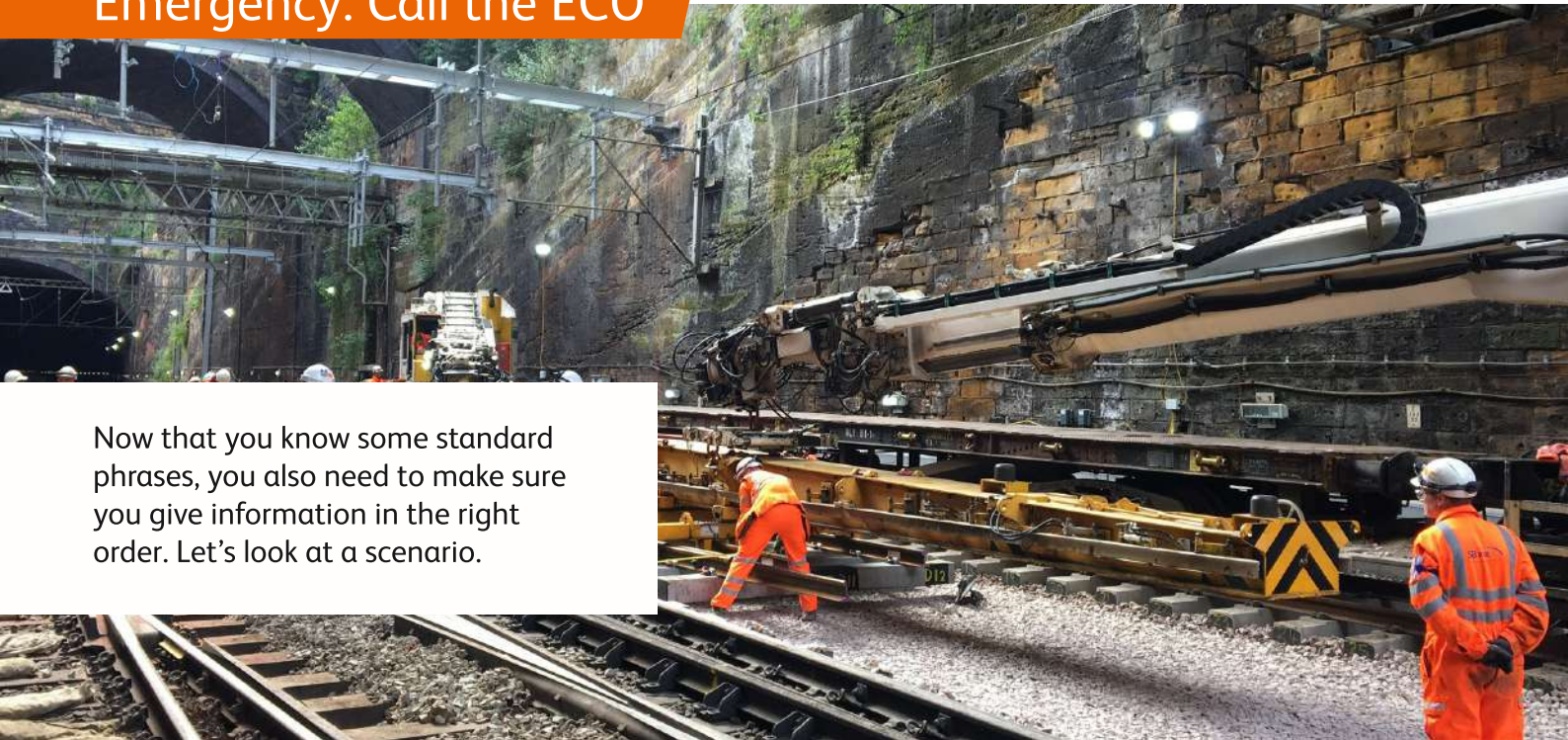
When you're using a radio, only one person can speak at a time. So you need this phrase, which means “I have completed my message and am expecting a reply”.

### **“Out”**

Your message is complete and you are not expecting a reply. Never say “Over and out” however many times you've heard it on TV! It doesn't make any sense.

# Communication & emergencies

## Emergency: Call the ECO



Now that you know some standard phrases, you also need to make sure you give information in the right order. Let's look at a scenario.

### The incident.

A team was out on routine track maintenance when one of them tripped over a loose red bond wire and received a severe electric shock. The group realised that a number of other wires were also loose. This was a serious hazard. As the COSS had to administer First Aid to the injured man, he passed his phone to another member of the team and told him to make an emergency call.

### The phone call.

Here's a transcript of the track worker's side of the phone call. He called the ECO.

*"This is an emergency call. Am I speaking to the ECO?"*

*"My name's Brian Lampart. I'm on a Network Rail team working at OLE structure Golf zero two four three."*

*"I'm calling from mobile number zero seven eight double zero nine seven double four double three."*

*"We've found a number of detached red bond wires. One colleague has received an electric shock. We need an emergency switch off and the emergency services as soon as possible."*

*"Could you read that back to me please?"*

*"Correct. Yes, I'll stay in touch."*

### What happened.

Brian's emergency call was a model of good practice. He started off by stating it was an emergency, gave accurate details about himself and his team's location and explained clearly what had happened. The ECO acted promptly. The power was switched off and the injured worker was taken to hospital where he is in a critical but stable condition.

# Communication & emergencies

## What to do in an emergency

### In the majority of railway incidents, errors in communication are often involved.

In an emergency, the first thing to do is make an emergency call. Any messages you send must be clearly understood. Begin by saying 'This is an emergency call'. Ask who you are speaking to and make sure it's the right person. Tell them who and where you are, who you work for and the role you are performing.

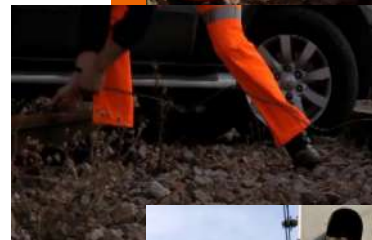
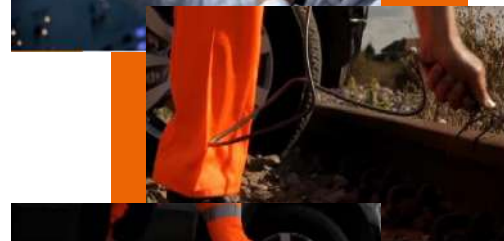
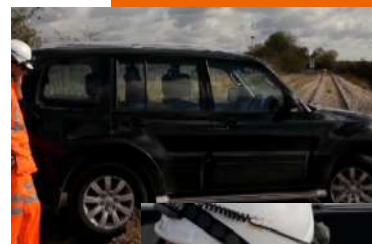
Describe the problem and the exact location using signal references or mile posts, and other physical features that would help confirm your location. Use the phonetic alphabet and speak any numbers one at a time. State clearly what you think should happen, then ask the receiver to repeat back what you have told them. Listen carefully to what they repeat back to you. If there are any errors, correct them. If your message is repeated correctly, confirm that this is the case.

If you are talking to the Signaller or the electrical control operator (ECO), it's their responsibility to take the lead in the conversation. They will make sure that a clear understanding is reached. Remember to give your own contact details in case they need to contact you again.

You should speak in clear sentences, and a little bit slower than you normally do. When you are passing any message to another person, try to use phrases that appear in the rule book.

If the line becomes unsafe, you may be asked or required to carry out emergency protection. This involves placing a track circuit operating clip on to the track. If the track has a conductor rail, connect the first clip to the rail furthest away from the conductor rail. Placing the clip will have the effect of changing the previous signal to Danger Red. Then walk two kilometres or one and a quarter miles in the likely direction of the next approaching train on the effected line. If you pass a signal box, tell the signaller what's happened.

You should place three detonators twenty metres or yards apart then move back thirty metres or yards to be clear of any fragments coming from them. You should also display a red hand signal or red light so it's visible to any approaching train.





# Communication & emergencies

## What to do in an emergency

In an emergency, you may have to try and stop a train yourself. In this case, you should make sure that you stand in a position of safety and display a red flag or hold both arms above your head if it's during daylight. At night you can use a red light or wave any light you've got from side to side.

If you reach a tunnel, and it is safe to do so, you may proceed through the tunnel. If not, you should avoid going through it. Place three detonators twenty metres or yards apart a short distance from the tunnel mouth.

On electrified lines, incidents can occur which require the power to the overhead cables or conductor rails to be switched off. This must be done by making an emergency call to the electrical control operator. Again, the first words you should say to the ECO are 'This is an emergency call'.

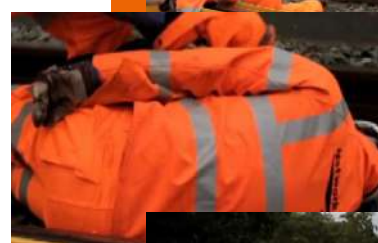
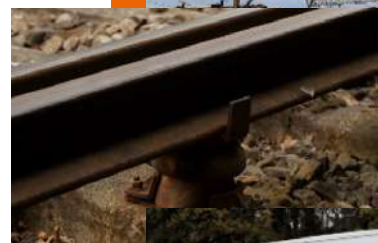
Tell them which line is affected, and the exact location of the incident. Remember to quote the nearest structure plate and give as many details as you can. This will help identify your location.

On a line with overhead cable, never approach an injured person if they are in contact with the OLE, or are within 2.75 metres or nine feet of it, or if any part of them is above the OLE. You must wait until the controller confirms that the electricity has been turned off. You should still take great care. Even without power, some voltage can remain.

Cover your hands with something nonconductive, and dry. An item of clothing, maybe. If you come across someone in contact with the conductor rail, don't approach them until you know the electricity has been switched off. It may take some time to get the power switched off; once again, you can attempt an emergency rescue if you are extremely careful to cover your hands and stand on something non-conductive and dry before touching the person. Never use anything metallic or wet.

Everything mentioned here is designed for your own protection, and to make sure that you and your work mates return home safely, every day.

When you work on the railway, always think 'Safety first'.



# Communication & emergencies

## How to make emergency calls



Here is a recap of the correct order to do things on an emergency call.

**Step 1:** Say 'This is an emergency call'.

**Step 2:** Check you're speaking to the right person.

**Step 3:** Give your name, company, role, location and telephone or radio number.

**Step 4:** Describe what has happened.

**Step 5:** Describe what action is required.

**Step 6:** Ask them to read back to you what is required.

# Communication & emergencies

## Stopping a train

If you spot an obstruction on an open line, your first priority should be to try and stop any approaching trains by calling the Signaller.



You will then need to take action to stop approaching trains. For this, you'll need:

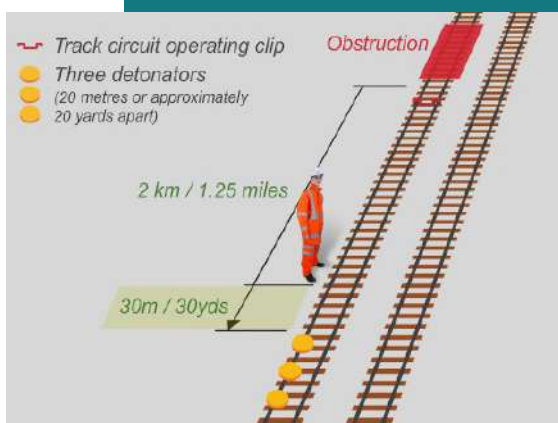
- Track circuit clips
- Detonators
- A red flag

Typically, the Lookout or Site Warden will be able to provide you with these.



In the Railway orientation section, you saw how track circuits work by a train's wheels interrupting the circuit. This causes the signal to change to red.

A track circuit can also be manually short circuited using **track circuit operation clips**. Use these by placing each clip to each of the running rails. However, you must **only** use these in emergencies, and they won't work in areas that use axle counters.

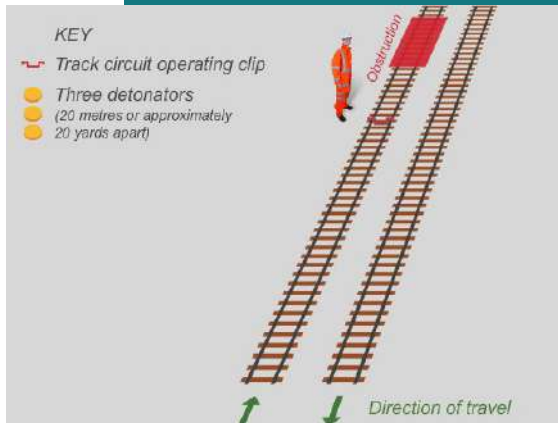


Once track circuit clips have been placed, you should move quickly but carefully about 2km (1.25 miles) towards approaching **trains**.

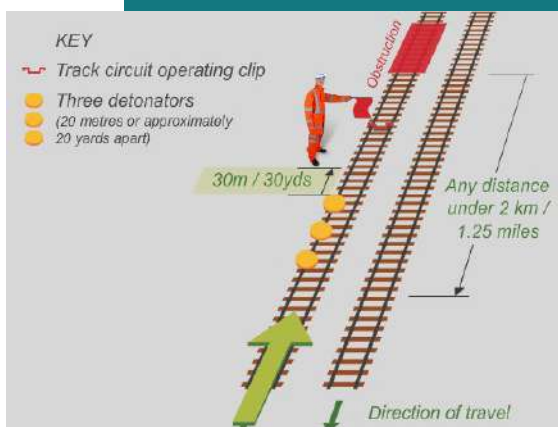
Now place **three detonators**, at **20-metre intervals** on the rail nearest the cess. When a train runs over them, they'll make a loud 'pop' sound, alerting the driver of the danger ahead.

# Communication & emergencies

## Stopping a train



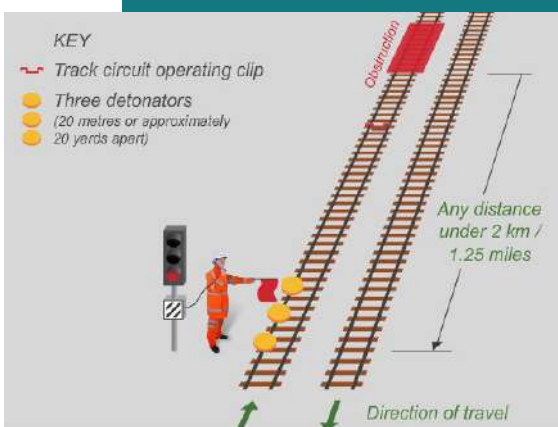
Now move at least 30 metres (30 yards) back towards the obstruction. If you have a red flag (daytime) or red light (at night), you should display them clearly here and from a position of safety.



There are a few circumstances where you should do things slightly differently.

If you can see that a train is approaching, and it is safe to do so you can place the detonators less than 2km (1.25 miles) from the obstruction. However, the further away you place them, the more time the train has to stop.

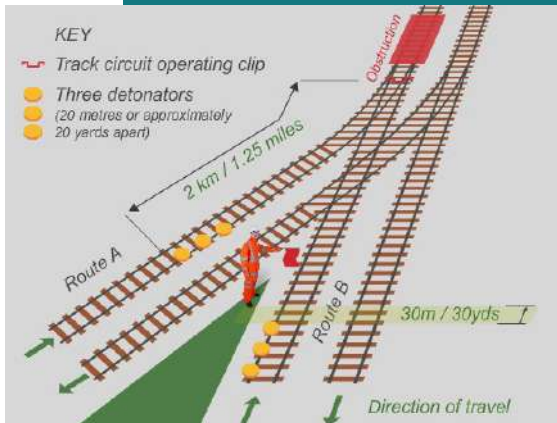
Don't put yourself in danger in these situations – make sure you have enough time to get out of the way of the oncoming train and stay at least 30 metres from the detonators.



If you come across a signal while proceeding to place your detonators, you should stop. Place the three detonators 20 metres apart on the track beside it, then use the signal phone while holding the red flag or red light.

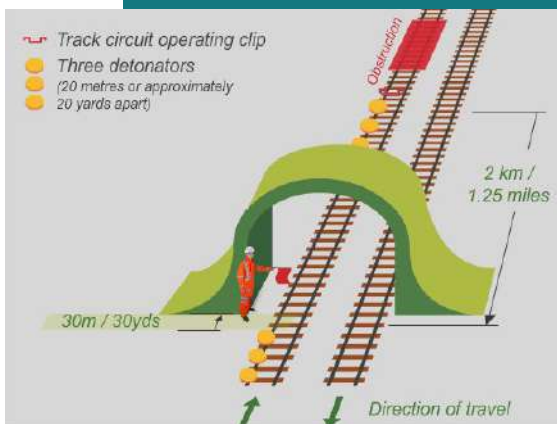
# Communication & emergencies

## Stopping a train



If you come across a junction, there are a few further steps to take:

- Place three detonators between the junction and the obstruction.
- Decide which line is the priority to protect.
- Place detonators on the line 2km (1.25 miles) from the obstruction.
- Return to the junction and remove the detonators there.
- Place detonators on the second line 2km (1.25 miles) from the obstruction and raise a red flag or red light.



Finally, when there is a tunnel within the 2km (1.25 miles), place three detonators on each side of the tunnel.

When putting emergency protection in place, you may ignore signs preventing you from entering a tunnel. However, you should only do this if it is safe to, and this is the only circumstance that you can do this.

# Communication & emergencies

## First aid arrangements

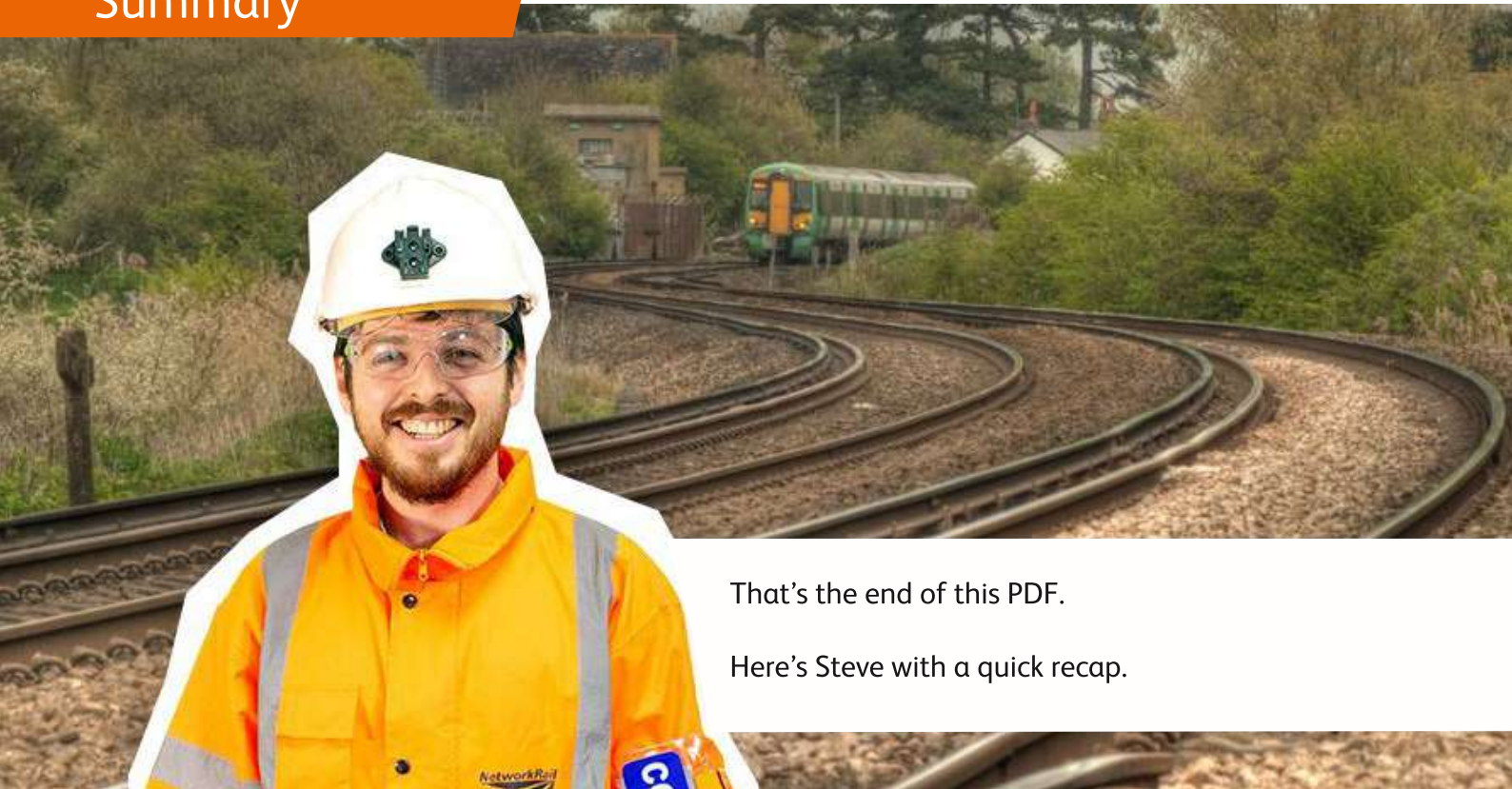


Sometimes, it may be necessary for you to give first aid to your colleagues. You should only administer first aid if you are qualified to do so.

There may well be some things you can do to make your injured or sick colleague more comfortable till the paramedics arrive. The person in charge will brief you before you start work on who the first aider is and emergency arrangements for your site of work.

# Communication & emergencies

## Summary



That's the end of this PDF.

Here's Steve with a quick recap.

“

Now you know how important it is to communicate clearly.

- Remember A,B,C – accurate, brief and clear.
- Use the phonetic alphabet to spell out difficult words or locations.
- If you're talking to someone on the phone or by radio, make sure that they repeat the information you've given them so that you know they've understood your message.
- And remember that if you're making an emergency call, you must start by stating "This is an emergency call". Make sure you're speaking to the right person (usually a Signaller or ECO) and tell them exactly what action is required.

That's the end of this part of the Personal Track Safety (PTS) learning. Please read the other PDFs or e-learning topics in this course before you take the online Assessment.

”