Rail Accident Investigation Branch

Near miss with a track worker, Bulkington, Warwickshire, 15 November 2022

Important safety messages

This incident demonstrates the importance of:

- Controllers of Site Safety ensuring that any site wardens appointed are positioned so that they can observe the whole work group and give an effective warning to anyone leaving the safe area
- those who plan or establish safe systems of work understanding that the six-foot may not always provide the two-metre distance that is required from running lines when implementing a separated safe system of work.

Summary of the incident

At around 01:29 hrs on 15 November 2022, a passenger train travelling at 125 mph (201 km/h) narrowly missed a track worker on the West Coast Main Line near to Bulkington, Warwickshire, around 4 miles south of Nuneaton.

Forward-facing CCTV from the train involved showing the COSS in the six-foot as the train approaches (courtesy of Avanti West Coast).

The track worker involved was the Controller of Site Safety (COSS) for a team working on the track nearby. The team had been working within the four-foot (the space between the rails) of a line which was under possession (closed to normal rail traffic). The near miss occurred after the COSS stepped from that position of safety into the six-foot (the space between two running lines) adjacent to the line on which the train approached, which was still open to rail traffic. The COSS returned to a position of safety around two seconds before the train passed.

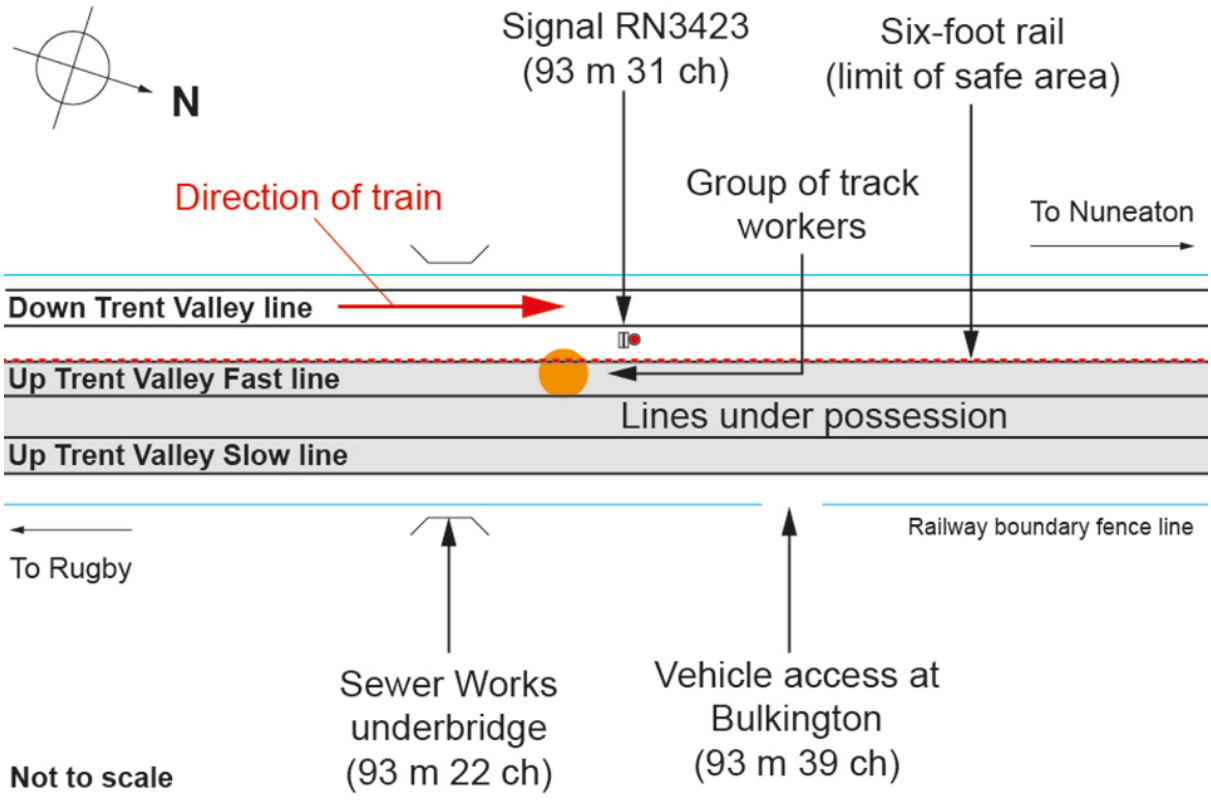
Cause of the incident

This incident occurred because the COSS moved from a position of safety within the four-foot of lines that were blocked to railway traffic to a position very close to an open line. The COSS stated he did this to gain better visibility of the approaching train because he was concerned that it may have been travelling towards his team, which was working on one of the lines under possession.

The COSS was a member of a team which consisted of a Central Rail Systems Alliance (CRSA) supervisor and a track gang supplied by Vital Human Resources. This gang consisted of a track chargeman, the COSS, a site warden and four track operatives. The COSS was also the Person in Charge (PIC) for the work being undertaken. Network Rail's standards state that, as PIC, the COSS was responsible for all aspects of the team's safety while it was on the track.

The railway at this location consists of three lines. The most westerly line is the Down Trent Valley line. This has a line speed of 125 mph (201 km/h) for the type of train involved in the near miss and was open to rail traffic. The middle and the most easterly line (the Up Trent Valley Fast line and the Up Trent Valley Slow line respectively) were both under possession at the time of the incident.

The planned safe system of work for the team was to stay within the lines that were under possession and to use a 'separated' safe system of work. This system uses a site warden to warn other team members if they attempt to move into an unsafe area, within two metres of an open line. In this case, the separated safe system of work was set up so that members of the team would not be permitted to step into the six-foot which separated the Down Trent Valley line (which was open) and the Up Trent Valley Fast line (which was blocked to traffic, along with the Up Trent Valley Slow line). If they attempted to do so, the team member concerned would receive a warning from the site warden to alert them to return to the safe area (the lines under possession).



Simplified diagram showing the railway lines at this location. Not to scale and not all features shown.

The COSS recorded that the team was able to access the lines under possession at 01:11 hrs on the night of the incident. Witness and documentary evidence shows that the COSS then gave a site briefing which included a description of the safe system of work, and identified the six-foot rail of the Up Trent Valley Fast line as the boundary of the safe area. The team was instructed by the COSS to remain on the eastern side of this boundary. The COSS also appointed a site warden.

The work then commenced as planned, with everyone apart from the site warden and the CRSA supervisor actively involved in the task of levelling ballast. The team was working from north to south, towards the direction from which the train would later approach.

By the time the incident train approached the team, at 01:29 hrs, forward-facing CCTV shows that the team had split into two distinct groups which were, by then, approximately 55 to 60 metres apart. Given the splitting of the team, the curvature of the track and the dark conditions, the site warden, who was in the group furthest away from the approaching train, could no longer adequately monitor the position of staff working very close to the boundary. This meant that the COSS received no warning from the site warden to step back when he moved over the boundary and towards the open line on which the train was approaching.

When working in a separated safe system of work, a distance of at least two metres must be provided between the site of work and the nearest running rail of any open line. The standard width for a six-foot is 1.97 metres (measured from running rail to running rail). This is why the six-foot rail of a closed line is often considered to be an acceptable boundary. However, witness evidence and analysis of photographic images indicate that the six-foot at this location is narrower than this standard distance, being approximately 1.6 to 1.8 metres. This meant that the choice of the six-foot rail of the Up Trent Valley Fast line as a boundary did not meet the requirements of the relevant rules. This also meant that a team member stepping over the boundary was more likely to be in the swept path of an approaching train.

The risks involved with an inadequate separation distance are further increased at this location due to the high speed of approaching trains (up to 125 mph, 201 km/h).

Previous similar occurrences

There have been many similar incidents previously investigated by RAIB. Notable examples include:

- On 4 December 2012, a passenger train struck and fatally injured a track worker (fulfilling the role of COSS) at Saxilby, Lincolnshire (RAIB Report 21/2013). A group of five track workers had been working under a line blockage with an adjacent line open to traffic. Before the accident (during an initial line blockage), the COSS had implemented a separated safe system of work and appointed himself as the site warden. During a second line blockage, the COSS had not implemented a safe system of work and was struck by a train while working in the six-foot between the two lines.

- On 18 July 2022, a passenger train travelling at 24 mph (39 km/h) narrowly missed a group of track workers at Paddington station, London (RAIB safety digest 07/2022). This incident occurred because the two track workers had moved away from lines that were blocked to railway traffic and were walking very close to an open line. This was a result of the PIC, who was also acting as COSS, not adequately planning the work or supervising the group while they were working on the track.

A wider summary of previous RAIB learning, including further similar incidents relating to the protection of track workers from moving trains, can be found on RAIB's website.