Rail Accident Investigation Branch

Near miss at Teignmouth Boat Yard, Devon, 14 February 2023

Important safety messages

This incident demonstrates the importance of:

- not undertaking tasks that require members of staff to access the railway unless those tasks are unavoidable
- reaching a clear understanding about the operational status of the railway before going on or near the line
- following good safety-critical communications practice regardless of the regularity of the arrangements being made or mutual familiarity of the staff involved
- prompt use of the train warning horn, which in this case probably avoided a fatal accident.

Summary of the incident

At around 01:23 hrs on 14 February 2023, a passenger train travelling at 55 mph (88 km/h) narrowly missed a track worker on the down main line near Teignmouth station, Devon.

The track worker involved was placing a work site marker board on the six-foot rail of the down main when the near miss occurred. Although uninjured, the track worker was forced to jump into an adjacent line to avoid being struck. The train involved collided with the work site marker board less than two seconds after the track worker jumped clear.

A forward-facing CCTV image of the incident taken from train 1C34 (image courtesy of GWR).

Cause of the incident

The incident occurred because the track worker had incorrectly assumed that the down main line they were placing the marker board on had been blocked to rail traffic. Although the marker board was placed following several conversations between the track worker and the responsible Engineering Supervisor (ES), none of these conversations prevented the incident from occurring.

The near miss occurred close to Teignmouth station during the setting up of a work site (a portion of line where work will take place) and at a location where access to the railway was through a private boat yard. This was part of a regular series of similar arrangements put in place to facilitate the use of road-rail vehicles (RRVs) and an overhead crane during the construction of a new rockfall shelter over the Great Western Main Line.

The track worker involved met the ES in the project site office at the beginning of the nightshift and received a general briefing about the work to be undertaken during that shift. The ES intended to remain at the site office until a possession of the main lines (where the railway is blocked to service trains, and in which the work site was to be established) had been taken and it was time to set up the work site. The ES advised the track worker of this intention.

After the briefing, the track worker started undertaking tasks away from the operational railway, including collecting materials from a storage compound a short drive away. While at this compound, the track worker was joined by the ES. Although neither the possession nor the work site was discussed, the track worker concluded that the railway must now be under possession, because the ES had left the site office.

The ES and track worker left the compound and returned to the site office in separate vehicles. At the site office, the ES called the Person in Charge of Possession (PICOP) to discuss the upcoming possession. The track worker was not present when this conversation took place.

During the call between the ES and PICOP, the question whether work site marker boards would be required was discussed. The possession planning paperwork showed that RRVs were to be used and the boundary of the work site should be identified with marker boards.

At this location it is necessary to reset signalling equipment after any on-track plant has been used. The ES advised the PICOP that, because no maintenance staff were available to reset the signalling equipment, the work would not include use of any on-track plant and therefore work site marker boards would not be required. Although the use of RRVs was not explicitly referred to, the ES intended the statement regarding the use of on-track plant to include RRVs. The use of the term on-track plant to encompass RRVs in this way agrees with the definition used in the relevant parts of the Rule Book.

During the shift, the PICOP was being mentored and, being unsure as to whether marker boards would still be required, the PICOP asked their mentor for advice. The mentor understood the term 'on-track plant' referred to by the ES to mean larger and permanently rail mounted plant, and not RRVs.

As a result of this discussion, the PICOP and their mentor mistakenly concluded that RRVs would still be used and that work site marker boards would still be required. The PICOP provided the intended use of the RRVs as justification for retaining the marker boards to the ES. The PICOP is responsible for the possession and the protection arrangements within it and the ES agreed to set out the marker boards, despite being aware that RRVs would not be used.

After speaking to the PICOP, and while still at the site office, the ES instructed the track worker to assist with the placing of the work site marker boards at each end of the work site. During this face-to-face conversation the status of the possession was not discussed. Due to the cyclic nature of the work, both the ES and the track worker already knew that one pair of marker boards would be required at Dawlish Warren with the other pair at Teignmouth Boat Yard, so the location of the placement of the boards was not discussed either.

The track worker had routinely placed marker boards at the Dawlish Warren end of the work site and believed they would do so on this occasion. However, the ES left the site office car park in his vehicle and turned towards Dawlish Warren, so the track worker assumed their own marker boards would need to be placed at Teignmouth Boat Yard instead. The track worker phoned the ES to ask for the code to unlock the yard entry gate. During this call, the ES instructed the track worker to 'call back when you get there' and the track worker agreed to do this.

After driving to the boat yard, the track worker found the entry gate code did not work, so they called the ES again to confirm the correct code. During this and the previous telephone conversation, no details were discussed relating to the status of the possession, or when the ES expected the track worker to access the railway through a track access gate inside the boat yard.

On previous occasions, the track worker had arrived at the relevant track access gate and called the ES to be instructed when to safely access the railway. Although the nature of the communications between the ES and track worker had been familiar and informal on the night of the incident, they had not given the ES any reason to believe that the track worker would behave differently on this occasion.

However, on this occasion the track worker was still mistakenly under the impression that the possession had been taken and they did not call the ES again after entering the boat yard, unlocking the track access gate, and entering the railway.

After walking a short distance along the track, the track worker began to fix the first marker board to the six-foot rail of the down main line on which, unknown to them, 1C36 was now approaching. As the train got nearer, it rounded a curve at around 55 mph (88 km/h) and the track worker then came into the driver's view. The driver immediately sounded the train's warning horn. On hearing the train, the track worker jumped into the adjacent line which was also still open to traffic. Less than two seconds later, the marker board was struck by the passing train.

This incident occurred because the informal method of communication had led to two assumptions being made. These were the assumption made by the track worker that the line was already blocked, when being asked to set up the work site marker boards, and the assumption by the ES that the track worker would await further instructions before accessing the railway. This informal communication between the track worker and ES arose due to their familiarity with each other, their good working relationship and because they had been applying the same work site arrangements almost every night for several months.

Previous similar occurrences

RAIB has previously investigated several accidents and incidents involving track workers. Of particular relevance is a near miss at Sundon, Bedfordshire in 2019 (RAIB Safety Digest 05/2019) in which not reaching a clear understanding during safety-critical communication was a cause of the incident, but where the sounding of the train horn probably averted a fatal accident.

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.