Rail Accident Investigation Branch

RAIB Bulletin 04/2013

Member of staff struck by train near Poole, Dorset, 12 July 2013

Description of the accident

1 At about 10:40 hrs on Friday 12 July 2013 a signalling technician, walking alongside the track a short distance south-east of Poole High Street level crossing, was struck a glancing blow by a train travelling at about 15 mph (23 km/h) that had approached from behind him and which he had not been aware of. He was slightly hurt, but did not require hospital treatment.

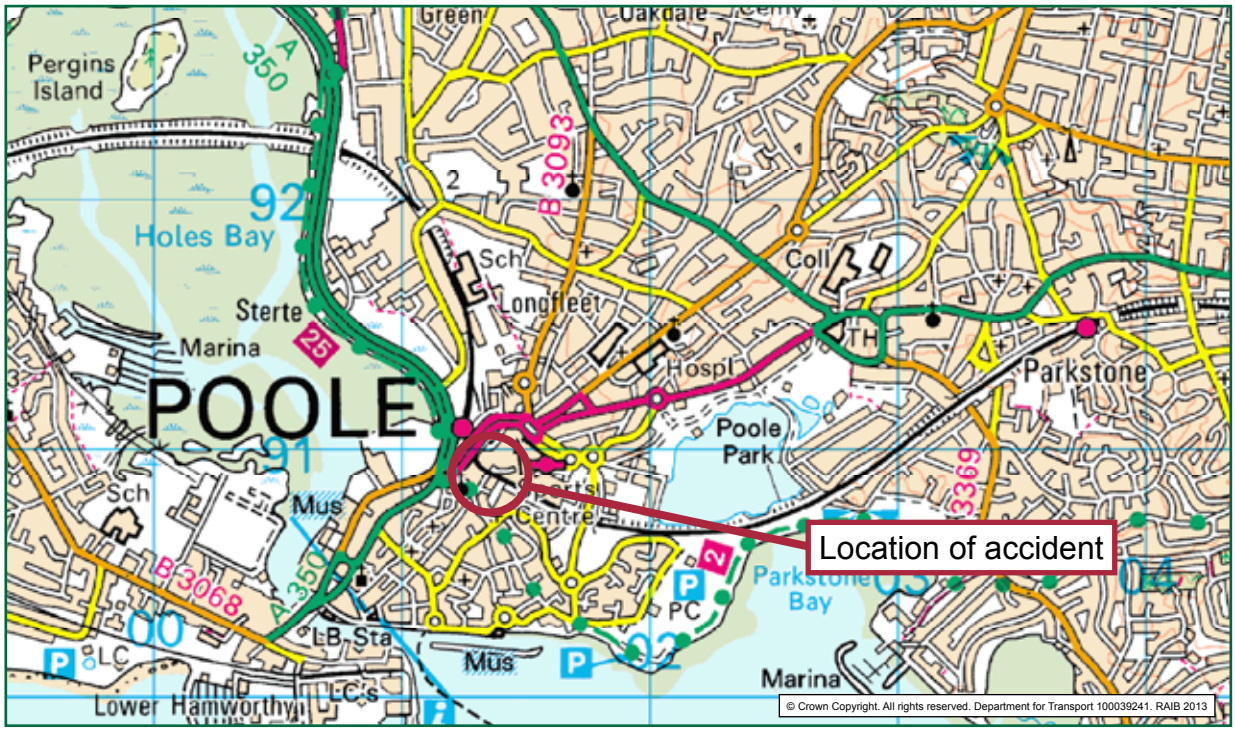

Figure 1: Extract from Ordnance Survey map showing location of accident

Background information

2 The railway in the area where the accident happened is double track, and is electrified on the conductor rail system. The signalling was controlled from the signal box at Poole station. At the time of the accident work was in progress to re-signal the railway between Poole and Weymouth, with control due to pass to the area signalling centre at Basingstoke in 2014. The railway is owned and maintained by Network Rail.

3 There is a crossover, a connection which enables trains on one line to move to the other, about 100 metres east of the High Street level crossing, which is in turn about 200 metres from Poole station. The crossover is used by down trains (ie those coming from the Bournemouth direction) to reach platform one at Poole. Movements over the crossover are controlled by signal PO48, which is located 200 metres east of the crossover.

4 The person who was injured was leading a team of contractors' staff who were carrying out preparatory work for the re-signalling scheme. On 12 July they were installing equipment in trackside locations around Poole station.

5 There were six people, including the team leader and the Controller of Site Safety (COSS[1]) in the group. The team leader was employed by MGB Engineering Ltd, and the other workers were agency staff supplied to MGB Engineering through Coyle Rail Ltd.

6 The train was the 10:28 hrs from Bournemouth to Poole, a class 444 train of five (empty) coaches which was due to form a passenger train from Poole to London, and was operated by South West Trains.

Sequence of events

7 At 08:00 hrs on 12 July the team assembled at the project depot close to Poole station. The COSS gave the team an initial briefing about the arrangements for safety. After gathering their equipment, they walked through the town to High Street level crossing, where the COSS delivered a further briefing regarding the site they were about to work at. Witness evidence indicates that these briefings included a reference to the possibility that trains could run in both directions along the up line in the area that the work was going to take place.

8 The work was planned to be done in an area alongside the line, clear of the track, using a person appointed as a site warden, whose duty was to watch all members of the group to make sure no-one moved too close to the track. One of the team, who was trained and certificated to Network Rail standards to act as such, was appointed by the COSS to act as lookout[2] while the team walked along the cess[3] to the site of work, and then as site warden while the work took place.

[1] A COSS is responsible for setting up, briefing and managing safe systems of work when that work is to take place on or near the line.

[2] A lookout's duty is to watch for approaching trains and warn members of a work group, so that they can move clear of the line before the train arrives.

[3] The area of the line side closest to the track, where there may be a route along which staff can walk.

9 The team leader drove a van from the depot to a car park adjacent to the site of work, bringing equipment for the day's work which was too bulky to be carried by the team. When the van had been unloaded, he drove it back to the depot and returned on foot to join the team. He checked that the work was going according to plan, and then walked with the COSS along the side of the line to the next location the team would have to work at, about 50 metres towards Bournemouth, to check the access arrangements. The team leader and the COSS returned to the rest of the team, and the team leader then decided to return to the depot to fetch more equipment. He told the COSS that he was leaving the site, and began to walk along the cess on the up side towards the level crossing. Walking alone on or near the track is permitted by the Rule Book[4], for people who are qualified in Personal Track Safety[5].

10 During this period, the train involved in the accident arrived in the area. As it approached signal PO48, which was at red, the driver saw people on the lineside ahead and sounded the train's horn as a warning. This warning was acknowledged by some of the people in the group. The train was stopped at signal PO48, and stood there for 1 minute and 34 seconds while an up train passed. The points then moved, the signal changed, and the train moved off. The driver did not sound the horn again (he was not required to do so). The train accelerated, and reached 18 mph (29 km/h) before the driver shut off power to pass over the crossover (the speed limit over the crossover is 30 mph (48 km/h)). Speed dropped to 14 mph (22 km/h) as the train passed over High Street level crossing, and the driver then re-applied power briefly before stopping at the station.

11 The team leader had begun to walk towards the level crossing after the train began to move away from the signal. He was unaware of its presence, and was thinking about the work the team had to do in the rest of the day, as well as a domestic issue. He noticed that the level crossing barriers were down, and assumed that any train that he would have to avoid would be running in the normal direction on the up line, and would appear from in front of him. He moved out to get round some bushes growing in the cess, and two speed limit boards, and probably returned to a safe position each time, but he did not look behind him before moving out.

12 However, he then stepped towards the track again preparatory to passing another group of bushes, and was struck on his left shoulder and upper arm by the front cab footstep of the train. He remained on his feet, and waited for the rest of the train to pass before returning to the site of work to inform the COSS of what had happened. The team leader declined medical attention. The COSS phoned the site supervisor who was in overall charge of the works in the area, and was told that the gang should cease work and return to the depot.

13 The train driver was unaware of the accident, and drove the train to Poole station. It remained in service, and the information from its on-board data recorder was secured by South West Trains staff at Waterloo station later in the day.

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[4] The national rail Rule Book, which is maintained by RSSB, can be found at http://www.rgsonline.co.uk/default.aspx.

[5] The basic training required by people who regularly need to go on or near the track in the course of their work.

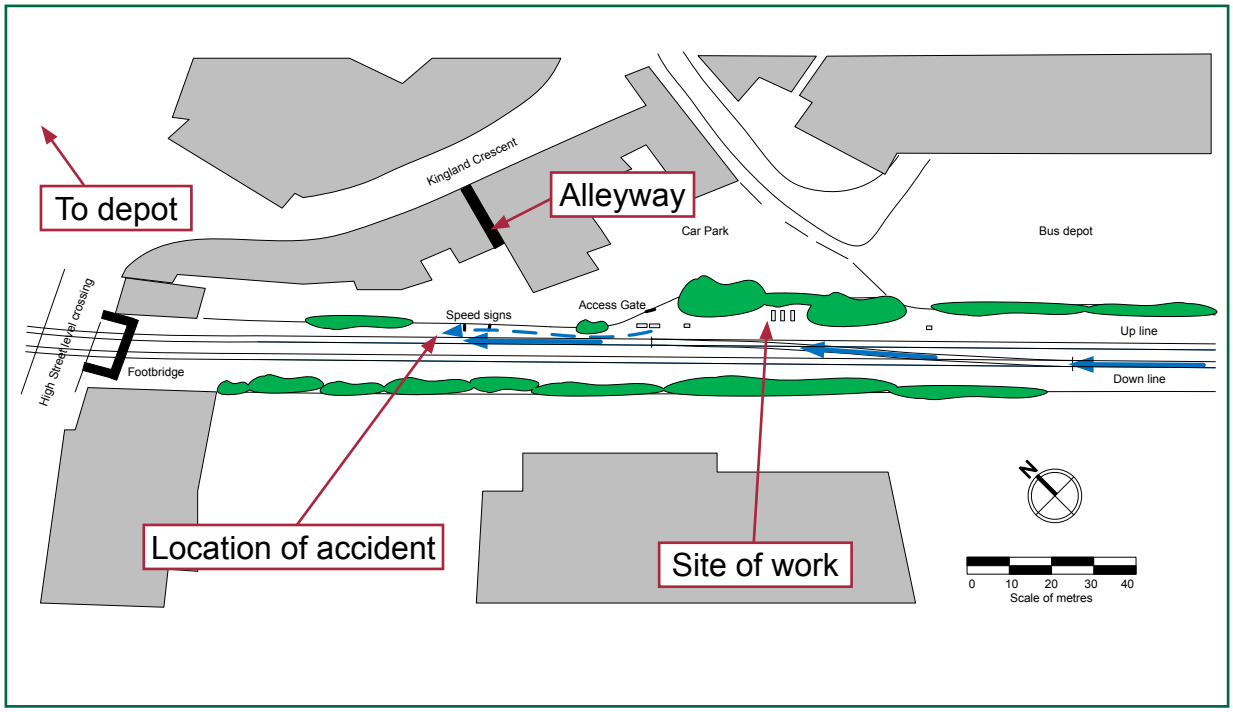

Figure 2: Plan of the site of the incident

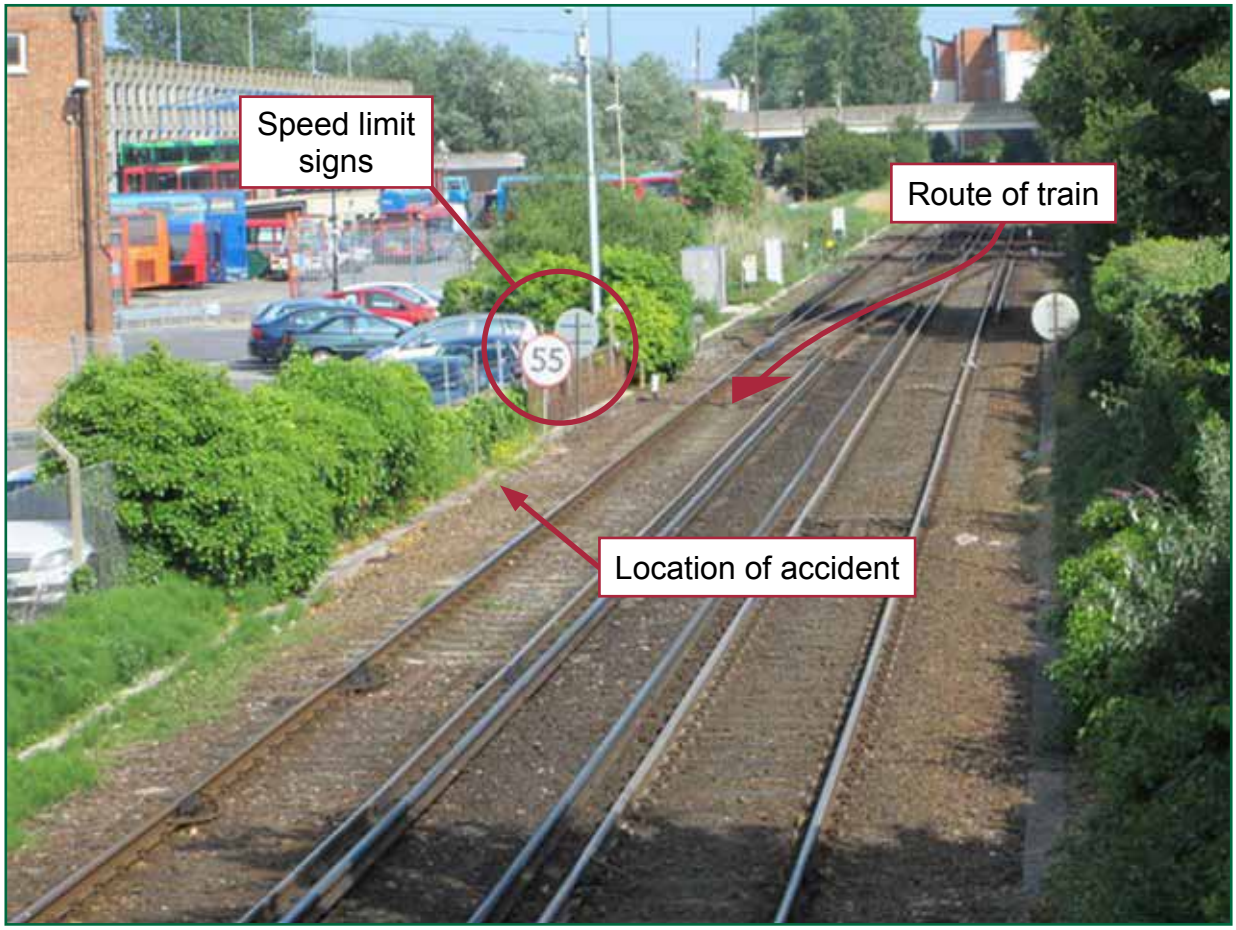

Figure 3: Location of the accident showing vegetation that was present at the time (image courtesy of Network Rail)

RAIB investigation findings and analysis

14 The cause of the accident was that the team leader did not remain alert to trains approaching from behind him while he was walking alongside the line. He had been briefed that trains could run in both directions on the adjacent up line, but had not registered this as a likely event because he had not seen it happen in that area before (although he had been working on the project for two weeks, he had only done about thirty minutes work on the line east of Poole level crossing before the day of the accident, and had not seen a train use the crossover).

15 The rules applicable to walking alongside the track (Rule Book, Handbook 1, section 4.3) say that while walking alone, staff must:

> *Keep a good lookout for approaching trains. Make sure you look up at least every five seconds so that you can reach a position of safety and be in it no less than 10 seconds before an approaching train arrives.*

16 The team leader was unaware of the approach of the train. It was an electric train, making little noise when coasting, and was running slowly so that there was also very little noise transmitted through the rails. There was some background noise from the surrounding area, but the alarms associated with the level crossing barriers stop sounding once the barriers are fully down, and so were not sounding as the train approached. The train driver had sounded the horn when he first saw the group, but did not do so again. He was not required to sound the horn when starting away from a signal, and the driver did not notice anyone walking alongside the track, although the team leader was about 50 metres away from the rest of the group when he was struck. The RAIB has been unable to establish why the driver did not notice the team leader. There is no evidence of anything that is likely to have distracted the driver at the time the accident occurred.

17 The team leader had to follow an erratic path to avoid obstacles close to the line, such as vegetation and lineside signs (figure 3). If the vegetation had been cut back (as was done after the accident) he would have had to spend less time in a position where he was foul of an approaching train.

18 The team leader legitimately chose to walk along the lineside because he believed that this would save time and a considerable detour in his route back to the depot. In fact, there is an alleyway between shops (figure 2) that would have enabled him to reach his destination almost as directly as the lineside route, but he was unfamiliar with the area and unaware of its existence.

Learning points[6]

19 The RAIB has identified the following key learning points:

For staff working on or near the track

- The need to be vigilant at all times when walking or working close to the line.
- The importance of using authorised access points to get on or off the railway, and thus minimising the distance people need to walk alongside the line (Rule Book, Handbook 1, section 3.1).

For train drivers

- The need to sound the train's horn as it approaches each group or individual, unless it is clear that all people on or near the line are aware of the train's approach (Rule Book, module TW1, section 10.2).

For infrastructure managers

- The importance of controlling vegetation close to the track which may obstruct the safe walking route along the cess.

[6] 'Learning points' are intended to disseminate safety learning that is not covered by a recommendation. They are included in a report when the RAIB wishes to reinforce the importance of compliance with existing safety arrangements (where the RAIB has not identified management issues that justify a recommendation) and the consequences of failing to do so. They also record good practice and actions already taken by industry bodies that may have a wider application.

This bulletin is published by the Rail Accident Investigation Branch, Department for Transport.

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