

Report 04/2020: Train collision with material washed out from a cutting slope at Corby, Northamptonshire

Summary

At about 15:53 hrs on Thursday 13 June 2019, a northbound passenger train, travelling at 40 mph (64 km/h), collided with debris washed out by flood water from an adjacent cutting slope, around one mile (1.6 km) north of Corby station. After reporting the incident, the driver found the rear of the train had become trapped by further debris washed out from the cutting slope. All 191 passengers on the train were later transferred to a southbound train, which itself then became trapped by flood water to the north and south. Between 450 and 550 passengers (from both trains) were then taken off the southbound train by 23:14 hrs, and conveyed to nearby stations to continue their journey by rail. No one was reported as injured as a result of the collision or subsequent detrainments. However, conditions on the southbound train were very uncomfortable for passengers due to overcrowding. Temporary repairs were made to the cutting slope and track to allow the railway to reopen the following day with a speed restriction in place.

The investigation found that the cutting slope had failed because it was not designed to cope with a large volume of water that had accumulated at its crest. Flood water had accumulated at the crest because two adjacent flood storage ponds had overfilled with water from a nearby brook. A blockage beneath a bridge over the brook caused its level to rise so water flowed over a spillway and into the ponds, which had not been routinely pumped down for nearly four weeks. The bank of the pond closest to the railway was a low point and the excess water spilled into the field between the ponds and the crest of the cutting slope. Exceptionally heavy rainfall was not a factor in the incident.

The investigation also found three underlying causes. One was a lack of engagement and communication between various parties responsible for the flood management system at this location about the potential for it to cause flooding on the railway. A second was the absence of an effective flood management system to manage the risk to the railway line, which is a principal transport route. Thirdly, although Network Rail was aware that the cutting slope was at risk of a washout failure when the nearby ponds overfilled and had long-term plans to act, it had not taken any action to mitigate this risk in the short term. The investigation also considered why the rescue and evacuation of passengers was significantly delayed and found that a lack of equipment for transferring passengers from one train to another was a factor.

Recommendations

RAIB has made five recommendations. The first calls for the Environment

Agency to work with Northamptonshire County Council, Anglian Water, Homes England, Corby Borough Council and Network Rail to implement an effective flood management system at this location. The second calls for Network Rail to identify similar locations prone to safety critical flooding and review how it manages flood risk at each of those places. The third relates to Network Rail providing its staff with training and guidance on how to better manage the short-term risks to earthworks while waiting for longer term planned work to take place. The fourth calls for Network Rail and the Rail Delivery Group, as part of an ongoing industry-wide programme of work to improve the management of stranded passenger train incidents, to jointly review their procedures for managing stranded trains to identify what emergency equipment is needed, and the fifth relates to Network Rail, as part of the same ongoing industry-wide programme of work, taking steps with train operating companies to make this equipment available for use.

RAIB also identified one learning point, which urges non-railway organisations responsible for managing flood risk to include the effect of flooding on railway lines, which are part of the United Kingdom's national infrastructure, in their planning.

Notes to editors

1. The sole purpose of RAIB investigations is to prevent future accidents and incidents and improve railway safety. RAIB does not establish blame, liability or carry out prosecutions.
2. RAIB operates, as far as possible, in an open and transparent manner. While our investigations are completely independent of the railway industry, we do maintain close liaison with railway companies and if we discover matters that may affect the safety of the railway, we make sure that information about them is circulated to the right people as soon as possible, and certainly long before publication of our final report.
3. For media enquiries, please call 01932 440015.

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