

Oliver Stewart
RAIB Recommendation Handling Manager
T: 020 7282 3864
M: 07710069402
E-mail oliver.stewart@orr.gov.uk

27 November 2020

Mr Andrew Hall
Deputy Chief Inspector of Rail Accidents
Cullen House
Berkshire Copse Rd
Aldershot
Hampshire GU11 2HP

Dear Andrew,

RAIB Report: Freight train derailment at Reading West Junction on 28 January 2012

I write to provide an update¹ on the action taken in respect of recommendation 4 addressed to ORR in the above report, published on 28 January 2013.

The annex to this letter provides details of actions taken in response to the recommendation and the status decided by ORR. The status of recommendation 4 is **'Implemented'**.

We do not propose to take any further action in respect of the recommendation, unless we become aware that any of the information provided has become inaccurate, in which case I will write to you again.

We will publish this response on the ORR website on 30 November 2020.

Yours sincerely,



Oliver Stewart

¹ In accordance with Regulation 12(2)(b) of the Railways (Accident Investigation and Reporting) Regulations 2005

Recommendation 4

The intention of this recommendation is to prevent track geometry faults being undetected after mechanised track maintenance work is completed. The need for a TQS to inspect and measure the track during and after this work is an important opportunity to identify faults that have formed, or existed beforehand. Recognising that current inspection arrangements may not result in reliable detection, Network Rail should assess and implement practical improvements. These could include consideration of the continuous recording of track geometry using approved manual methods (with allowance made for track deflection due to vehicle loading) and taking full advantage of the track measurement capabilities of tamping machines and similar track maintenance plant.

Network Rail should review and, where necessary, improve its processes for the detection of track geometry faults after mechanised track maintenance work to reduce the likelihood of such faults going undetected before the railway is handed back into service.

ORR decision

1. To close out the issues we raised by correspondence with Network Rail following the submission of their closure statement submitted in December 2018 we held discussions at a meeting with Network Rail Professional Head of Track on 5 September 2019. At the meeting he provided additional information and discussion on the response to the recommendation, including the fitment and reasonable practicability regarding use of DRS systems. Further to this we held a specific meeting with the Professional Head of Track on 25 October 2019 to discuss wider work on improving the use and effectiveness of tampers and stone blowers. Key points concluded from these meetings were:

- a. Network Rail had undertaken a review of existing processes (including continuous recording of track geometry using manual methods and use of DRS systems)
- b. Network Rail had improved training of TQS's to support them in delivering their role as ultimate speed raiser who says all aspects of the worksite are fit for reopening to traffic.
- c. Network Rail had undertaken briefing of Route On-Track Machine Engineers (ROTME's) on the incident and handback requirements etc.
- d. Network Rail have ongoing work to improve the overall efficient use of OTMs (tampers and stone blowers). This includes continuing to review/explore options for fitting and utilising the DRS / DRP systems fitted to Tamping machines, looking at how other EU countries operate and use them, and a software system to assist in Tamping/Stone blowing, which Network Rail consider to be promising.

2. Based on the discussions with Network Rail, the information provided and work carried we consider Network Rail has provided sufficient information and assurance that the recommendation has been implemented so far as is reasonably practicable.

3. We will continue to monitor progress by Network Rail on the efficient and effective use of OTMs through our routine liaison meetings.
4. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:
- taken the recommendation into consideration; and
 - has taken action to implement it

Status: Implemented.

Previously reported to RAIB

5. On 18 July 2014 ORR reported that Network Rail had reviewed its processes to detect geometry faults, however the evidence provided left the issues of the fitment and use of DRS unanswered. We did not know if DRS would be retrofitted or any reasoning behind the decision or whether the use of DRS would be mandated. We wrote to Network Rail to obtain more information before we could fully consider the response to this recommendation.

Update

6. On 18 December 2018 Network Rail provided the following closure statement:



20161219 Reading
West Jcn RAIB Rec 4

7. Network Rail state the following in conclusion:

Network Rail has reviewed its processes for the detection of track geometry faults after mechanised track maintenance work. These processes are defined within the Network Rail suite of standards, NR/L2/TRK/001 Inspection and Maintenance of Permanent Way and Level 3 on-track machine standards and are considered appropriate in the management of associated risk. Evidence suggests Infrastructure Maintenance Engineers be made accountable for organisational consistency and delivery of any changes.

Current workstreams supporting the development of Business Critical Rules and the national on-track machine strategy are further enhancing our approach in the management of risks associated with geometry faults and the introduction of improved on-track machine capability. The development of competency, training and awareness are core elements of these programmes. All are ongoing programmes within normal business activities.

Previously reported to RAIB

Recommendation 4

The intention of this recommendation is to prevent track geometry faults being undetected after mechanised track maintenance work is completed. The need for a TQS to inspect and measure the track during and after this work is an important opportunity to identify faults that have formed, or existed beforehand. Recognising that current inspection arrangements may not result in reliable detection, Network Rail should assess and implement practical improvements. These could include consideration of the continuous recording of track geometry using approved manual methods (with allowance made for track deflection due to vehicle loading) and taking full advantage of the track measurement capabilities of tamping machines and similar track maintenance plant.

Network Rail should review and, where necessary, improve its processes for the detection of track geometry faults after mechanised track maintenance work to reduce the likelihood of such faults going undetected before the railway is handed back into service.

Previously reported on 6 December 2013

1. We previously reported that Network Rail had reviewed its processes as defined in the NR/L2/TRK/001 suite of standards and had confirmed that they adequately defined the planning of effective mechanised maintenance and highlighted the risks associated with crossover roads. Network Rail were also reviewing whether there was a case to require all tamping operations to be recorded using Data Recording Systems (DRS) and the implications of making the resources available to achieve this (This has now been addressed in the Network Rail closure statement relating to recommendation 5).

Update

2. On 13 May 2014 the update below was received from Network Rail:



Reading West Rec 4
Closure Statement RE

This document considers the following areas:

- *Review knowledge and application of processes for the detection of track geometry faults after mechanised track maintenance;*
- *The application of continuous recording of track geometry;*
- *Training of Track Quality Supervisors (TQS) and line management monitoring of behaviour change*

- *Briefing of the Route On-Track Machine Engineers (RoTME) of the need and benefits of track geometry monitoring post work, best practice site and resource planning to achieve quality improvement*

Conclusion

Network Rail has reviewed its processes for the detection of geometry faults after mechanised track maintenance work. These processes are defined within the Network Rail suite of standards, NR/L2/TRK/001 Inspection and Maintenance of Permanent Way and considered appropriate in the management of associated risk. Evidence suggests Infrastructure Maintenance Engineers be made accountable for organisational inconsistency and delivery of any changes.

Current work streams supporting the development of Business Critical Rules and the national on-track machine strategy are further enhancing our approach in the management of risks associated with geometry faults and the introduction of improved on-track machine capability. Means of Compliance 5142 applies to track geometry control.

The development of competency, training and awareness are core elements of these programmes. All are on-going programmes within normal business activities.

Future test of effectiveness

- *Delivery units to confirm line management responsibility for TQS to promote ownership of end product quality, process improvement and technical briefing (Owner- Reliability Improvement Manager [Track]; IMEs accountable for system integrity)*
- *Structured review of Route tamper planning processes, creation and use of TQS packs with the inclusion of key worksite details (e.g. priority working as per Bordesley) (Owner – Reliability Improvement Manager [Track] – Network Operations*
- *Structured site verifications to test processes and product (Owner – Route Asset Managers [Track], Professional head [Track] within context of wider assurance framework)*
- *Monitor usage of post work track geometry recording through PHIRES forms. (OWNER – Reliability Improvement Manager [Track] – Network Operations with significant input from NDS)*
- *Review implementation of the new TQS training course with the emphasis on quality related behaviour and controls (owner – Professional Development and Training).*

3. Network Rail also provided the following information in relation to the fitment and use of Data Recording Systems.



Fitment and use of
Data Recording System

ORR decision

4. Network Rail has reviewed its processes to detect geometry faults, however the evidence provided leaves the issues of the fitment and use of DRS unanswered. We do not currently know if DRS will be retrofitted or any reasoning behind the decision or whether the use of DRS will be mandated. We have written to Network Rail to obtain more information before we can fully consider the response to this recommendation.

Status: In progress. We will update RAIB by 31 December 2014