

Oliver Stewart
Senior Executive, RAIB Relationship and
Recommendation Handling

Telephone 020 7282 3864
E-mail oliver.stewart@orr.gsi.gov.uk

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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 Heworth, Tyne and Wear on 23 October 2014

I write to provide an update¹ on the action taken in respect of recommendation 5 addressed to ORR in the above report, published on 24 September 2015.

The annex to this letter provides details of the action taken regarding the recommendation. The status of recommendation 5 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 10 June 2019.

Yours sincerely,

Oliver Stewart

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

Recommendation 5

The intent of this recommendation is to reduce the risk of derailment due to track assets not being maintained by better management through auditing and monitoring procedures.

Network Rail should investigate why its management arrangements allowed non-compliances to processes for track asset maintenance to go undetected in the area covered by the Newcastle Track Maintenance Engineer, which correspondingly had the highest numbers of reportable track geometry defects and eighth of a mile sections of track in the super-red category when compared to other areas. The investigation should include consideration of:

- why its audit and self-assurance framework did not identify the full extent of the non-compliances to processes found by the RAIB;
- why its reporting and monitoring processes did not trigger earlier action by senior management within the Route to resolve the persistent problems affecting the track assets in the Newcastle Track Maintenance Engineer area; and
- whether there are other Track Maintenance Engineer areas, like the one at Newcastle, with persistent non-compliances to processes that are affecting the maintenance of its track assets.

Based on the findings of its investigation, Network Rail should take action to improve the management arrangements at Route level that audit, monitor and review the performance of a local area to highlight non-compliances which are resulting in persistent deficiencies with the maintenance of its track assets.

ORR decision

1. After carrying out a deep-dive review of its Level 1 assurance at the Newcastle DU, Network Rail identified a lack of audit resource being available from another RAM team as the main reason the full extent of process non-compliances identified by RAIB was not apparent to them.
2. Network Rail have modified the audit process so that where resource is not available to conduct an element of an audit this is highlighted to the Professional Head as part of the Engineering Assurance Pack, and is rescheduled for an alternative date rather than cancelled.
3. We will monitor Network Rail's assurance improvement work, including progress with improving routes level 1 assurance processes through a route-wide inspection project and through routine liaison meeting with Network Rail's assurance lead.
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
 - taken action to implement it

Status: Implemented**Previously reported to RAIB**

5. On 26 April 2017 ORR reported we believed the deep dive review will help Network Rail address this recommendation and welcomed recognition that work beyond that review needed to be done in the Newcastle TME area to ensure that the review findings remain valid at that location, whilst taking account of any local factors.

Update

6. On 10 January 2018 Network Rail provided the following closure statement:

The intent of this recommendation is to reduce the risk of derailment due to track assets not being maintained by better management through auditing and monitoring procedures. The investigation was conducted in two parts, one looking at the local management, known as level 1, assurance arrangements and the other at the corporate level 2 arrangements.

Level 1 review was conducted at the end of 2016, sampling activity from three Routes. The review was conducted to gain a better understanding of how well the assurance framework is understood and applied. The review concluded that:

- Level 1 assurance was not adequately defined or communicated within Network Rail*
- The assurance framework policy document did not specify what assurance should be taking place at each level;*
- Knowledge of assurance at all levels of the business varied from limited to no understanding of assurance duties; and*
- There was little or no analysis of the outcomes from assurance activities and therefore no improvement could be planned.*

Following the review STE consulted a revised Network Rail Assurance Framework document (NR/SP/ASR/036) to clarify the three lines of defence model used to provide assurance, to specifically reference what activities are undertaken at each level and to require analysis and management review of assurance outcomes at Business Unit, ie Route, level.

The new framework (issue 5 of the document issued December 2017) defines Level 1 assurance activities are those conducted within a Business Unit to confirm that activities are being undertaken as planned. These assurance activities are primarily focussed on testing whether the controls identified in standards and procedures are being applied consistently as defined. Examples include planned supervisor inspections, site QHSE inspections and Maintenance Self-Assurance. The degree of independence from the activity being assured is lowest at this level. The revised standard includes the requirements for each Route Managing Director to arrange for the outcomes from their Business Unit assurance activities to be collated and analysed each

quarter and for this analysis to be reviewed by the Route Executive and improvement actions generated to strengthen local and/or national controls; and the effectiveness of assurance activities.

A review undertaken by the Functional Audit Manager identified that the last level 2 audit of the Newcastle DU did not have the Track element of the audit conducted due to difficulties securing audit resource from another RAM team. Level 2 assurance activities are those which confirm to the control owner that controls are properly deployed and operating as expected. These assurance activities are primarily focussed on testing whether Business Units have implemented the controls identified in standards and control documents and where non-implementation is identified to determine whether this is a local compliance issue or if the control design requires improvement.

These assurance activities are managed and conducted independently of those responsible for the activity being assured. Examples include the Functional Audit Programme and Engineering Verification activities. Each higher level of assurance is designed to test the lower level. Level 2 assurance samples work activities and controls and the level 1 assurance activities that are associated with these. Similarly level 3 assurance tests the effectiveness of level 2 assurance in checking the operations of the framework of controls.

The review undertaken by the Functional Audit Manager concluded that the Track audit protocols would probably have identified non-conformances that had the potential to correct the issues. The audit process has been modified so that where resource is not available to conduct an element of an audit this is highlighted to the Professional Head as part of the Engineering Assurance Pack and is scheduled for an alternative date rather than being cancelled.

The FAP Progress Tracker is attached for period 9. For the 2017/18 FAP to the end of Q3 this has resulted in no Track audits being cancelled and one re-scheduled to January 2018. This improvement in the completeness of the level 2 audit schedule will improve the probability of detecting non-compliance.

The improvements in the level 1 and 2 regimes including the analysis and improvement activities required by the revised Assurance Framework address bullet points 1 and 2 in the RAIB recommendation.

A review conducted by the Head of Track identified no other Track Maintenance Engineer areas, like the one at Newcastle, with persistent non-compliances to processes that are affecting the maintenance of its track assets. The review addressed bullet point 3 of the RAIB recommendation.

Previously reported to RAIB

Recommendation 5

The intent of this recommendation is to reduce the risk of derailment due to track assets not being maintained by better management through auditing and monitoring procedures.

Network Rail should investigate why its management arrangements allowed non-compliances to processes for track asset maintenance to go undetected in the area covered by the Newcastle Track Maintenance Engineer, which correspondingly had the highest numbers of reportable track geometry defects and eighth of a mile sections of track in the super-red category when compared to other areas. The investigation should include consideration of:

- why its audit and self-assurance framework did not identify the full extent of the non-compliances to processes found by the RAIB;
- why its reporting and monitoring processes did not trigger earlier action by senior management within the Route to resolve the persistent problems affecting the track assets in the Newcastle Track Maintenance Engineer area; and
- whether there are other Track Maintenance Engineer areas, like the one at Newcastle, with persistent non-compliances to processes that are affecting the maintenance of its track assets.

Based on the findings of its investigation, Network Rail should take action to improve the management arrangements at Route level that audit, monitor and review the performance of a local area to highlight non-compliances which are resulting in persistent deficiencies with the maintenance of its track assets.

ORR decision

1. We believe the deep dive review will help Network Rail address this recommendation and welcome recognition that work beyond that review needs to be done in the Newcastle TME area to ensure that the review findings remain valid at that location, whilst taking account of any local factors.

2. 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
- is taking action to implement it, but ORR has yet to be provided with a timebound plan.

Status: *Progressing*. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Previously reported to RAIB

3. On 4 August 2016 ORR reported that Network Rail had not responded to the recommendation and that the status of the recommendation was 'Insufficient response'.

Update

4. On 21 January 2017 Network Rail provided the following response:

Network Rail has remitted a 'Deep Dive Review' into the effectiveness of its level 1 assurance arrangements. As part of this review Network Rail will seek to determine why the management arrangements allowed non-compliances to processes for track asset maintenance to go undetected in the area covered by the Newcastle Track Maintenance Engineer leading to the derailment at Heworth.

The review will identify any local reviews or investigations into derailments, their consideration of the effectiveness of the assurance arrangements, the improvements that have been made at Newcastle DU within the scope of this review, the effectiveness of these improvements and how these have been shared with the route and beyond.

The review will then independently assess the following in relation to the incident and Newcastle DU:

- a) the reporting and monitoring processes;*
- b) the self-assurance arrangements;*
- c) the audit arrangements.*

To determine:

what was planned;

what was delivered;

whether the outputs highlighted the issue;

the effectiveness of the management response; and

what improvement is required to enable these arrangements to be effective.

The review will determine what improvements are required to Network Rail's monitoring, self-assurance and audit arrangements, agree these at an appropriate governance meeting and implement the agreed improvements.

Separate to the 'deep dive review' a review of data available nationally will be undertaken to determine whether it is capable of highlighting whether similar situations exist in other TME areas/DUs.

5. ORR is confident that the deep dive review will help Network Rail identify how to address this recommendation. Network Rail's response referred to a timescale date of 28 February 2017 which had now passed. We asked Network Rail to provide timescales for the following activities:

- The independent review of the arrangements in Newcastle DU – when complete, and findings provided
- When any identified improvements will be agreed – when known, and details provided
- When those improvements will be implemented

The final paragraph of the response states:

Separate to the 'deep dive review' a review of data available nationally will be undertaken to determine whether it is capable of highlighting whether similar situations exist in other TME areas/DUs.

6. We asked Network Rail to provide further information of this work and timescales for completion.