Oliver Stewart
Senior Executive, RAIB Relationship and
Recommendation Handling
Telephone: 020 7282 3864
E-mail: oliver.stewart@orr.gsi.gov.uk

09 December 2015

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

Dear Andrew,

RAIB Report: Derailment at Liverpool Street Station, London, 23 January 2013

I write to report[1] on the consideration given and action taken in respect of recommendations 1, 2 and 3 addressed to ORR in the above report, published on 11 December 2014.

The annex to this letter provides details in respect of each recommendation. The status of all three recommendations is '**In Progress**', subject to Network Rail progress with implementation of the Business Critical Rules (BCR) programme. ORR will advise RAIB when further information is available regarding actions being taken to address these recommendations.

We will publish this response on the ORR website on 10 December 2015.

Yours sincerely,

Oliver Stewart

---

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

Initial consideration by ORR

1.   All 3 recommendations were addressed to ORR when the report was published on 11 December 2014.

2.   After considering the recommendations ORR passed all three recommendations to Network Rail asking them to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below.

Recommendation 1

This recommendation is intended to reduce the risk of derailment arising from the performance of non-standard track assets by establishing an appropriate and independently checked inspection regime.

Network Rail should improve its management systems so that both the identification of all non-standard track assets, and the associated inspection regimes intended to manage any enhanced risk of derailment, are recorded and independently checked. The scope of these inspection regimes should include mechanisms for identifying indications of possible gauge widening and, where necessary, assessing dynamic track gauge.

ORR decision

3.   ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and

- is taking action to implement it, but this is subject to progress with implementation of the Business Critical Rules (BCR) programme and no timebound plan for this has been provided.

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

Information in support of ORR's decision

4.   In its response of 27 April 2015, Network Rail provided the following information:

Network Rail will look to provide guidance on:

- *what factors should be taken into account when determining if there is a 'non-standard site with an increased risk of derailment' which could include track design, track use and environmental factors;*

- *identifying whether some of the risks can be eliminated;*

- *where risks cannot be eliminated, what additional or enhanced inspection regimes should be implemented on these sites; and*

- *the scope of the inspection regimes to include mechanisms for identifying indications of possible gauge widening, and where necessary, accessing dynamic track gauge.*

These elements will be included in the proposed Track Maintenance Engineer course (see Rec 2 response).

The guidance would be applied by the TME and reviewed/checked by the RAM [Track].

Network Rail will identify an appropriate system (existing or new) in which this information is recorded and retained.

5.   In an email on 8 June 2015, Network Rail provided the following additional information:

Within the framework of the current Standards structure it is evident that some assets due to design, operating context or environmental reasons pose a greater or unusual risk of derailment. To identify and mitigate the risk the following approach will be taken:-

- *The first task has been to identify the factors that combine to make a location a higher risk e.g.*
  - *Tight Radius*
  - *Inspected in Darkness*
  - *Non-standard design*
  - *Subject to accelerated wear or corrosion*
  - *Similar flexure turnout*
  - *Etc…*
- *Put these factors into a scoring regime to identify locations that may require additional mitigation against derailment.*
- *Adjust the scoring regime to highlight 1 or 2% of assets with highest risk, calibrate the scoring regime against previous derailments (due to track infrastructure) to ensure these locations would be identified.*
- *Send the scoring regime out to the routes for validation.*
- *Identify a national database (most likely Ellipse) of validated locations.*
- *Produce a periodic review criteria for each of the locations identified and validated, so local engineers can assess the risk and eliminate or reduce the risk profile of these locations through mitigation.*

 • *Record the decisions made and mitigation introduced in a suitable location (most likely Ellipse*).

Recommendation 2

This recommendation is intended to introduce an assessment of staff in track related safety critical roles where the role is reliant on judgements made by that member of staff, to ensure they have the necessary experience and knowledge to perform that role.

Network Rail should introduce a timebound programme for assessing (and reassessing at intervals) the competence of its managers with safety critical roles linked to track maintenance (e.g. section managers [track] and track maintenance engineers), and addressing any shortfalls arising.

ORR decision

7.   Given that the scope of the on-going Network Rail work is now necessarily wider than originally described and now extends to other managers with safety critical responsibilities related to track (e.g. Rail management engineers or those involved in opening track to line speed), ORR does not consider Network Rail's submission demonstrating completion on 27 November 2015 to be sufficient to address that new position.

8.   At this stage Network Rail does not have a timebound plan for completion of all the activities (in particular the competency framework and training for each level of expertise), there is a commitment from Network Rail's senior executive to the BCR programme and competency elements there-in (see rec 3 below) and as such, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

 • taken the recommendation into consideration; and

 • is taking action to implement it, but this is subject to progress with implementation of the BCR programme and no timebound plan for this has been provided.

9.   On 30 November 2015 Network Rail indicated that there had been further developments in the delivery of this recommendation and ORR has requested a formal update on the latest position. Once we have received this we will write to again to RAIB.

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

Information in support of ORR's decision

10.   In its response of 27 April 2015, Network Rail provided the following information:

As part of the Business Critical Rules (BCR) programme, the training material for the Section Manager [Track] competency (Tr05) has been reviewed and is being updated and improved. This is being piloted during 2015 and is planned to be

available for use from May 2015. Re-assessments will be part of the Skills Assessment Scheme activity.

A Track Maintenance Engineer course is currently under development. This is intended to be a 3 week course aimed primarily at new appointments and will be available from September 2015.
A condensed (1 week) course is being prepared which will specifically target high risk responsibilities. This will be attended by everyone who is currently undertaking the TME role. It is intended to pilot this course from May 2015.

The Assurance Model for this competence will follow the requirements of the Skills Assessment Scheme where appropriate.
"15/05/2015: CP3 mtg planned 19/05/2015 to consider response. 19/05: CP3 meeting concluded further detail required; IMcD meeting R Lacey before end June.

11.   ORR met with Network Rail on 29 May 2015 and subsequently provided further detail on their thinking regarding building on work that is on-going in Business Critical Rules (BCR) programme and Professional Development and Training (PD&T). Network Rail's approach is to link the training and continual assessment for all safety critical roles to the Threats and associated Barriers identified by the Bow Tie analysis for each asset.

12.   The original response from Network described the approach to development of training in relation to two specific roles of SM(T) and TME, within the context of the BCR programme. However further discussion with Network Rail revealed the intent to develop a competency framework as part of the Role Based Competency (RBC) project within the BCR programme that addresses the knowledge and skills requirements of each of the BCR Bow Tie Threat lines and their Means of Control.

13.   Training requirements and skills re- assessment will be based on a matrix combining the level of expertise required e.g. Expert, Practitioner and Knowledge levels, with their role e.g. Design, Maintenance, Infrastructure Projects etc..

14.   Certain specific roles have been identified as requiring a wider training requirement, initially TME's but later SM(T)'s and possibly technical staff. These roles will have a more general (non-technical) training course developed to link all the aspects of the role together. A TME course is under development as the first in the suite to be delivered.

15.   On 5 October 2015 ORR attended the first TME training event. Following attendance, review and feedback ORR attended a subsequent event on 26 October 2015. These events are now on-going as part of the suite of courses being developed.

16.   The re-assessment framework – Skills Assessment Scheme (SAS) – is now in place using existing competency requirements until new RBC produced material is available.

Recommendation 3

This recommendation is intended to establish whether it is appropriate to extend the aims of recommendation 2 beyond the track discipline.

Network Rail should introduce a time-bound programme for the review of the processes used for assessing (and reassessing at intervals) the competence of managers with safety critical roles linked to the maintenance of assets other than track, and addressing any shortfalls arising.

ORR decision

17.   ORR met with Network Rail on a number of occasions between May and October 2015 to discuss the action they were taking in response to the recommendations in the Liverpool Street derailment report

18.   Network Rail recognised prior to RAIB making this recommendation that its current processes for checking a person's competency needed to be improved. Network Rail has designed, and in May 2015 implemented, a new process for assessing and re-assessing competence – the Skills Assessment Scheme (SAS). This assesses competence on a risk based approach against current competence requirements.

19.   As part of its Business Critical Rules (BCR) programme, the Role Based Capability (RBC) project is reviewing each asset system competency framework to ensure that it is capable of providing responsible roles with adequate training to be able to deliver the identified means of control (MOC) from the BCR process, and that assessment, and re-assessment materials used in the SAS process are adequate. Improvements to materials etc where necessary will be made. The proposed timescale for this work to be completed is three years.

20.   The RBC project is currently unfunded beyond the track, S&C, and off track asset systems, and as such no start date can be provided for the three year programme. NR has intimated that a funding authorisation decision is due soon.

21.   On 2 September 2015 Network Rail wrote to ORR confirming that their Executive remain committed to the BCR programme (that included Role Based Competence), and funding has been secured to progress the Role Based Capability work-stream for all asset systems which delivers the training and competence framework linked to controls that manage risk. This was later confirmed at a meeting with the BCRP Director at a meeting on 5 October 2015.

22.   On 30 November 2015 Network Rail indicated that there had been further developments in the delivery of this recommendation and ORR has requested a formal update on the latest position. Once we have received this we will write to again to RAIB.

23.   ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and

- is taking action to implement it, but this is subject to progress with implementation of the BCR programme and no timebound plan for this has been provided.

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

Information in support of ORR's decision

24.   In its response of 27 April 2015, Network Rail provided the following information:

As part of the continuous improvement process it is Network Rail's intent to introduce a cycle of review for each competence framework and their associated materials. This will be set at a maximum cycle of 2 years, the scope of which will be designed to include:

  i. *a review of the overarching framework – High Level (including introduction, review and/or withdrawal of modules within scope)*

 ii. *a review of the competence/capability modules & statements contained within the frameworks taking into account, the activity requirements, the monitoring and review cycle, and any associated prerequisites and sundry information.*

iii. *a review of **or** design and development of initial development requirements (Training and/or development materials that enable a person to attain competence)*

 iv. *a review of **or** design and development of the renewal materials (this may include training and/or assessment materials, (e.g. knowledge tests, professional discussions, surveillance documentation, activity work check requirements etc.))*

  v. *identification of and a plan to implement any change requirements (e.g. Identification of any gaps in existing competence – (Changes form last issue); communications to support the change, additional materials that would close any gaps or enhance the individuals skills)*

The review cycle will be facilitated by PD&T and rely on the support and commitment of training governance structures and technical resources availability in the business.

The review includes those frameworks and associated materials that are currently under review as part of the RBC (BCR) programme and include the materials above contained within Rec 2:
- *Plain Line Track (PLT)*
- *Switches & Crossings (Track)*
- *Off Track*

The Means of Control and associated reference materials are in development to support the requirements above and will be briefed to the BAU owners of the review process as and when completed.