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27 October 2021

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 on 23 January 2013

I write to provide an update¹ on the action taken in respect of recommendations 2 & 3 addressed to ORR in the above report, published on 11 December 2014.

The annex to this letter provides details of actions taken in response to the recommendations and the status decided by ORR. The status of recommendations 2 & 3 is '**Implemented**'.

We do not propose to take any further action in respect of the recommendations, 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 28 October 2021.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Oliver Stewart', written in a cursive style.

Oliver Stewart

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

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

1. This and related recommendations concerning staff competence in the Track discipline have a long history. We have provided some of the essential documents, but it is important to reflect that there is a lot more detail in our records. We have not provided it all as the volume would be overwhelming.
2. Network Rail's efforts to improve staff capability in track asset management have not always been successful. We were depending on the delivery of Business Critical Rules for some of these initiatives, for example, but this programme was not successfully realised. The concept of 'Role Based Capability' survived – but its achievement has been lengthy and troubled at times.
3. In addition to the formal submissions from Network Rail which are referred to here, ORR has maintained scrutiny of the topic by means of regular strategic central liaison meetings, inspection assignments and formal enforcement (June 2017 Improvement Notice "to demonstrate the competence of persons who carry out a role that impacts on the safety of the railway, in particular the role of Track Maintenance Engineer (TME).")
4. We believe we have now reached a point where we can report that Network Rail has addressed this recommendation satisfactorily. Network Rail has: defined, through a track competency framework, the required competencies for staff in Track; developed training; introduced a process for routine assessment of TMEs and Section Managers (SMs) through a process which has become business as usual (BAU); and is regularly monitoring the competence of staff. Competency and assessment for occupational tactical track skills is now managed through the Skills Assessment Scheme (SAS) which links to the track competency framework.
5. Whilst there is BAU work ongoing to complete assessments of all staff against the track competency framework, the work done and the ongoing BAU activity delivers the intent and requirement of the recommendation. We also note that training is being refined and updated in a continuing way, managed by the Network Rail Technical Authority.
6. 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.

Background

7. Note that this recommendation and the work to address it is directly linked to the actions being taken by Network Rail to address recommendation 4 from the February 2012 RAIB report regarding two incidents involving track workers between Clapham Junction and Earlsfield, which addressed related track competency issues. (NB An associated RRC paper for Clapham Junction and Earlsfield, Recommendation 4 has been prepared for RRC consideration.)

8. NR provided an initial response on the 27th April 2015. This was discussed at an RRC in November 2015 and is summarised [here](#).

9. ORR reported the following on 9 December 2015:

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 will be sufficient to address that new position.

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.

10. A closure statement was received in February 2016. A copy can be found [here](#).

11. The ORR was not satisfied with the closure statement and kept the recommendation open with the following requirements put to NR (as detailed [here](#)):

- a) That the Role Based Capability (RBC) programme is fully scoped, funded and resourced and being delivered for all safety critical management roles in Track Maintenance. This demonstration will need to include a timebound programme setting out when RBC will be Business as usual (BAU).
- b) That Skills Assessment Scheme (SAS) is being applied consistently and in line with the standard requirements across all safety critical management roles in track Maintenance.
- c) That's there is an auditable process for identifying core competences for each safety critical role individuals.

12. Note the Network Rail BCR programme, referred to above and in our previous report to RAIB, was closed in early 2018 with the competence elements being retained and developed through the Role Based Capability Programme.

13. On 12 June 2019 Network Rail provided the following closure statement:



Liverpool Street
Station Rec 2 signec

14. Network Rail stated the following in the closure statement:

This recommendation, sought to provide a time bound programme for assessing (and reassessing at intervals) the competence of its managers with safety critical roles linked to track maintenance.

The considered response of the Chief of Track & Lineside is that the introduction of Role based competency combined with the route to maintaining and renewal of these competences through the Skills Assessment Scheme (independently where required) addresses the recommendation in full.

Further to this, where it is recognised that knowledge holes are present in certain roles, specific programmes have and will be developed to fill the knowledge gaps e.g. the currently running TME course. These courses will be aimed at every individual in the role to establish a baseline of knowledge for the role, each course participant will be assessed for their PDP needs.

Where courses do not currently exist they will be developed and delivered within the RBC framework.

It is considered that the intent of this recommendation has been addressed by these three interlinked approaches and can therefore be closed.

15. To confirm the detail, coverage and delivery the work described in the June 2019 closure statement and earlier statements from Network Rail ORR kept the recommendation open and held a number of progress meetings with Network Rail Track Technical Authority (Formerly STE) and the leads of the RBC programme. From those meetings we have confirmed detail and progress of the work set out by Network Rail, details summarised below setting out the position with Track competence framework and the SAS for occupational tactical competencies.

Update – current position

16. The Technical Authority (TA) have developed and put in place the competence framework for Track Engineers and safety critical track staff. The Role Based Capability (RBC) programme develops and delivers the training necessary to support development of staff. Competencies have been split into two areas, Occupational and Technical/Professional, summarised as follows:

- a. Professional and Technical: These are monitored via the annual development plans used during the performance review process. There are a total of 39 professional competencies defined for Track Engineers, 16 of which are considered as applicable to Track.

b. Occupational Competencies: These are monitored through the Skills Assessment Scheme, and are ticketed competencies like TR11 (Opening line to traffic) and TR06 (Basic Visual Inspections). Maintenance Engineers (noting that 15 of the 39 are design specific).

17. For each professional competence, there are 5 levels, from Awareness to Expert (L1 – Awareness, L2 – Knowledge, L3 – Applying, L4 – Leading, L5 – Expert).

18. The TA have defined the desired competence level for each role with the professional competence framework (e.g. TME and SM). For Levels 1 to 3, the levels are self-assessed by the individuals. To achieve a level 4 or 5, the assessment must be validated by individuals granted with delegated authority from the Network Technical Head of Track.

19. Professional competencies are defined within Oracle, with specific behavioural indicators identified for each to help assign a competence level.

20. The process for assessing individuals against professional competencies is now built into the Business as Usual performance review process. A standard self-assessment form exists for each applicable role – an example TME self-assessment form can be found [here](#). There is auditability as regions enter results into Oracle (The NR competence recording system) – however this is not yet fully populated by all regions, this is ongoing BAU work. The TA use details entered in Oracle to monitor progress with competence development.

21. Occupational competencies are assessed through the skills assessment process (SAS) and form part of the annual capability conversation. The track competencies are defined within NR/SP/CTM/011. This includes the requirements for initial assessment and the re-assessment frequency and operate within the Skills Assessment Scheme (NR/L3/CTM/306 ISSUE 2) which has been operating in its revised form since 2016.

22. We note that whilst the RBC programme is funded to develop new training materials, it is not funded to update existing materials. This is a gap, acknowledged by the TA and is being actively reviewed to resolve. See meeting notes [here](#), from a discussion between the ORR and the TA.

23. Through subsequent meetings with both the TA and the RBC programme, we have evidence that TMEs and SMs are completing self-assessments and that both TME and SM training is being delivered. The TA are also monitoring the delivery of training and self-assessment for TMEs and SMs. As the recommendation required a time bound plan for assessing and addressing any shortfalls, the recommendation is being complied with as NR are delivering both assessments and training, and developing a means of monitoring competence through logging results from competence assessments on Oracle.

24. The Track Team will continue to monitor the ongoing delivery of this work through routine liaison meetings, focusing on areas with a lack of information, or perceived gaps in competence.

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

25. See discussion in earlier section about history of ORR engagement with Network Rail on this topic – the stalled initiatives such as BCR and the slow development of Role Based Capability were even more pronounced for disciplines other than Track. This accounts for the time taken for ORR to report that the recommendation has been adequately addressed. Much of our scrutiny in this area has consisted of regular progress meetings. This intelligence has supplemented the formal submissions from Network Rail described in the following pages.

26. The Role Based Capability programme is delivering similar training for E&P and Signalling staff to that it is delivering for Track. In addition, and independent of the RBC programme, the disciplines of Lineside, Drainage, Civils and Structures are developing and delivering competence frameworks, arrangements and training relevant to their assets.

27. 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.

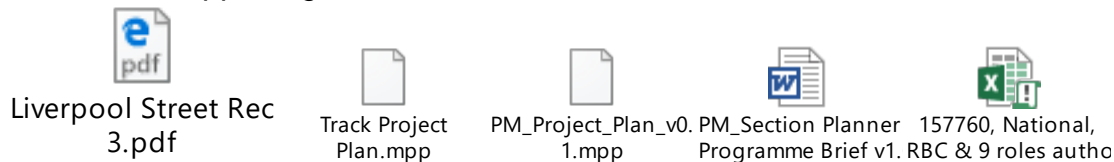
Previously reported to RAIB

28. ORR reported on 9 December 2015 that Network Rail was taking action to implement the recommendation, but this was subject to progress with implementation of the Business Critical Rules (BCR) programme and no timebound plan was provided for this.

29. Note the Network Rail BCR programme was closed in early 2018 with the competence elements being retained and developed through the Role Based Capability Programme.

Update

30. On 23 February 2018 Network Rail provided the following closure statement and supporting evidence:



31. Network Rail state in summary the following:

“The Role Based Capability (RBC) programme is funded and has picked up pace with a mandate to provide Engineering competence for managers with safety critical roles for Signalling, Track and E&P Engineering before the end of CP5. As part of this development a proposal has been drafted to amend the Oracle “Competence” group of responsibilities to include the Skills Assessment Scheme, Annual Capability Conversation functionality as part of the competence reassessment strategy.”

32. The Role Based Capability programme is delivering similar training for E&P and Signalling staff to that it is delivering for track. The process being followed for E&P and Signalling is similar to that for Track, and has been set out in the closure statement from NR, which is linked below.

33. The RBC programme does not include Civils and Earthworks, or Lineside and Drainage.

34. Lineside and drainage competency has been discussed through routine liaison with the Network Technical Head. The work here is well underway although behind other asset areas. A competence position assessment has been undertaken by AECOM, who reported back in December 2020, report [here](#). Work is now underway to develop an Off-Track competency standard, being developed by ARUP with an expected completion date of December 2021 (following stakeholder review in September 2021), It is planned that training will need to be developed to plug existing knowledge and competency gaps and support ongoing development(see meeting minutes from routine liaison with the Network Technical Head [here](#)).

35. Civils standard NR/SP/CTM/017, Competence & Training in Civil Engineering, sets out the minimum requirements for the training and assessment of people who undertake Civil Engineering work that may affect the operational safety of NR controlled infrastructure. The standard covers the following staff:

- a. Examiners – the person who conducts the examination of the structure
- b. Examining Engineers – the person who manages the examination process for a defined range of structures
- c. Structure Managers – the person with formal delegated responsibility for the safe management of a Structure.
- d. Earthwork Managers – the person responsible for the safe management of Earthworks within a defined geographical area.

36. Further to the above, NR are now undertaking work to further develop their competency arrangements in some areas as a result of findings from the 2010 tripartite report mandated by the ORR, and to address RAIB recommendations from Barrow Upon Soar (2016) and Scout Tunnel (2012). Details of the plan, and a timebound plan can be found [here](#).

37. As well as the competence frameworks set out above related tactical occupational competencies for these disciplines are managed through the Skills Assessment Scheme and are assessed through the this scheme and form part of the annual capability conversation. The SAS details are set out in NR standard NR/L3/CTM/306 ISSUE 2

Previously reported to RAIB

Recommendation 2

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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

1. 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 will be sufficient to address that new position.

2. 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) 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

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

Steps taken or being taken to address the recommendation.

3. 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.

4. 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.

5. 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.

6. 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..

7. 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.

8. 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.

9. The re-assessment framework – Skills Assessment Scheme – 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

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. 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.

16. 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

17. 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 from 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.