Oliver Stewart
RAIB Recommendation Handling Manager

1 August 2024

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Near miss at Norwich Road level crossing, Norfolk on 24 November 2019

I write to provide an update[1] on the action taken in respect of recommendations 2 & 3 addressed to ORR in the above report, published on 14 December 2020.

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

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.

Yours sincerely,

Oliver Stewart

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

Recommendation 2

The intent of this recommendation is to mitigate risk from introducing new train types which will have significantly different wheel-rail interface characteristics from the trains which they replace.

Network Rail should provide some additional guidance to accompany the standards governing the technical compatibility between vehicles and infrastructure concerning the need for proper consideration of the risk arising from a change of the predominant wheel-rail interface on a route following the introduction of new rolling stock over a short period of time. This consideration should include wheel-rail interface characteristics which are compliant with relevant standards but which differ from rolling stock used previously

ORR decision

1. After discussion with Network Rail and RSSB, the recommendation was redirected to RSSB as the appropriate body to provide guidance around wheel/rail interface when new rolling stock was introduced.

2. To address the recommendation, RSSB has updated RIS-8270-RST (Route Level Assessment of Technical Compatibility between Vehicles and Infrastructure), to clarify roles and responsibilities of infrastructure managers and railway undertakings when determining technical compatibility and safe integration of new rolling stock. We consider the revised document to provide the appropriate additional guidance to railway undertaking and infrastructure managers to address the RAIB recommendation.

3. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, RSSB has:

- taken the recommendation into consideration; and
- has taken action to close it

Status: Closed.

Previously reported to RAIB

4. On 6 December 2021ORR reported the following:

Network Rail is working with RSSB to consider changes to industry standards for vehicle introduction, including consideration of the risks that may arise from a change of the predominant wheel-rail interface on a route. ORR will monitor progress of research project 16004 through attendance at the rolling stock standards committee.

Update

5. On 1 November 2022 Network Rail provided the following closure statement:

[N206-05] Norwich Road Rec 2.pdf

6. On 21 September 2023 RSSB provided the following response:

We have looked into this and find that we have completed work to reinforce the guidance in RIS-8270-RST with Issue 1.1 (attached). This was driven by Network Rail last year.

RIS-8270-RST-Iss-1-1.pdf

The clauses below were updated to heighten awareness of vehicle introduction:

Clause G 2.5.3
G 2.5.3 Although likely to be included in the RU's or IM's SMS, attention is drawn to the good practice for RUs and IMs to review industry intelligence, such as National Incident Reports (NIRs), Urgent Operating Advice communications and Rail Accident Investigation Branch (RAIB) reports. The Rail Delivery Group has also published guidance on the introduction of new trains on its website.

Clause 3.2.10
G 3.2.10 The proposer of the change is either the RU for proposed vehicle changes or the IM for proposed infrastructure changes. The proposer is ultimately responsible for determining technical compatibility and safe integration with a particular route(s) as they are the actor who will operate the asset. However, for some of the activities involved in the route compatibility process, the proposer (RU or IM) can put in place arrangements with a third party (such as a project entity, Entity in Charge of Maintenance (ECM) or keeper different to the proposer) to perform most of the work necessary to determine technical compatibility, particularly the technical demonstration elements. It is assumed that the compatibility assessment is carried out by a person who is, or persons who are, competent and conversant with the principles of safe integration See Appendix A and RIS-2700-RST.

The attached briefing note shows the changes in more detail. However, re reading Norwich Road Rec 2 from an RSSB perspective, could you advise if this is sufficient to close it? If so, I will form a more detailed closure response as part of my Period 7 update.

22-BN15.pdf

Recommendation 3

The intent of this recommendation is to ensure that lessons learnt during successive installations of a signalling system are applied to earlier installations where necessary.

Network Rail should review and enhance its processes for managing the configuration of signalling equipment so that earlier installations are modified where necessary to reflect safety improvements implemented on later installations.

ORR decision

7. Network Rail has reviewed the processes for managing the configuration of signalling equipment so earlier installations are modified where necessary to reflect safety improvements implemented on later installations.

8. The review found that the requirements of the standards were sufficient, but that the documentation of trial arrangements and responsibilities required by the product acceptance standard (NR/L2/RSE/100/05 Product acceptance and change to Network Rail operational infrastructure) could be reinforced.

9. To address this finding, Network Rail has incorporated trial arrangements into the generic acceptance requirements for signalling and level crossing equipment and added a template trial plan to the product acceptance hub. Network Rail have clarified that the form is applicable to both internal and external clients.

10. 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 close it

Status: Closed.

Previously reported to RAIB

11. On 6 December 2021 ORR reported the following:

Network Rail has provided a plan for reviewing the processes for management of signalling products. ORR has asked Network Rail to clarify the scope of the action being taken and if it is more than just a review of standards around the introduction of new products, as the intent of the recommendation is to spread learning and intelligence from signalling installation schemes across the network. It is not clear from the response provided how this is being done as the standards referred to are only about product approval.

Update

12. On 11 July 2023 Network Rail provided the following closure statement.

[N215-12] Norwich Rd Rec 3.doc

13. On 6 October 2023 Network Rail provided the following update:

Apologies it's taken a few days to respond on the remaining question. As this entry wasn't one changed for the Norwich Road rec 3 action it took a while to speak with the relevant person to confirm.

The question I took away was what this row in the generic acceptance requirements meant by 'internal applicants only', as it's possible to read it as if it's not relevant to an external applicant. As suspected, it means that the details of the impact on these stakeholders is required to be provided by the internal applicant as they are best placed to consider it. All applications require an internal applicant (the sponsor) and so it is applicable to all applications.

Assess impacts for each identified stakeholder and state how their needs are being managed e.g. *Manufacturer* *Network Operations* *Competence and Training* *Infrastructure Projects* *Vehicle acceptance*	*Provide details (Internal applicants only)*	

Hope that answers the question, but please let me know if there's any further clarification needed.

Previously reported to RAIB

Recommendation 2

The intent of this recommendation is to mitigate risk from introducing new train types which will have significantly different wheel-rail interface characteristics from the trains which they replace.

Network Rail should provide some additional guidance to accompany the standards governing the technical compatibility between vehicles and infrastructure concerning the need for proper consideration of the risk arising from a change of the predominant wheel-rail interface on a route following the introduction of new rolling stock over a short period of time. This consideration should include wheel-rail interface characteristics which are compliant with relevant standards but which differ from rolling stock used previously

ORR decision

1. Network Rail is working with RSSB to consider changes to industry standards for vehicle introduction, including consideration of the risks that may arise from a change of the predominant wheel-rail interface on a route. ORR will monitor progress of research project 16004 through attendance at the rolling stock standards committee.

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 has not been given a time-bound plan as the project is still at the research stage

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

Information in support of ORR decision

3. On 20 September 2021 Network Rail provided the following initial response:

Action Plan

Please provide milestones with dates

It has been recognised that the industry standards for vehicle introduction need improvement. Network Rail will work collaboratively with the RSSB, whom own the standard, to support the improvements required and provide additional guidance to address this recommendation.

Therefore, Network Rail will undertake the following actions:

- Consult internally and with other parties to develop Requests for Help for RSSB submission to support standards improvement in this area –

Complete: requests for help have been submitted to and accepted by RSSB, forming part of Project 16004.

- Act as an active industry sponsor for any RSSB research projects which are identified as required to support improved standards and guidance in this area – TBC: however no research need has so far been identified.
- Work collaboratively with the RSSB to review existing standards or develop new standards if needed, in this area in light of the Norwich Road incident.- Dates TBC: an RSSB project has commenced (Project 16004) and milestones are to be confirmed.

Progress:

A collaborative project with the RSSB and Network Rail is to be created to address the concerns arising from Norwich Road. In order to support the RSSB, Network Rail is looking to provide input into the additional guidance required to fulfil this recommendation and support the relevant RSSB standards. RSSB has incorporated this requirement into Project 16004 which is reviewing the relevant standards and considering whether a new standard needs to be created. Further collaboration is occurring with RSSB and industry partners to develop lessons learnt from the Norwich Road incident into the revised RSSB standards and guidance. Milestone and closure dates are to be confirmed following a discussion with the RSSB regarding Project 16004 milestones.

Evidence required to support closure of recommendation

Project 16004 concluding report and if appropriate, publication of new/revised RSSB-owned standards.

Recommendation 3

The intent of this recommendation is to ensure that lessons learnt during successive installations of a signalling system are applied to earlier installations where necessary.

Network Rail should review and enhance its processes for managing the configuration of signalling equipment so that earlier installations are modified where necessary to reflect safety improvements implemented on later installations.

ORR decision

4. Network Rail has provided a plan for reviewing the processes for management of signalling products. ORR has asked Network Rail to clarify the scope of the action being taken and if it is more than just a review of standards around the introduction of new products, as the intent of the recommendation is to spread learning and intelligence from signalling installation schemes across the network. It is not clear from the response provided how this is being done as the standards referred to are only about product approval.

5. 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

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

Information in support of ORR decision

6. On 5 April 2021 Network Rail provided the following initial response:

Action Plan
Please provide milestones with dates
Network Rail will review the processes for management of signalling products, with focus on: - 1. Product introduction under trial conditions, including o the management of remedial actions taken from the trial experience o the controls applied for defining the product configuration by manufacturer, design application and maintenance adjustment. (Initial discussions indicate an improvement to trial plans, in the form of prescribed minimum content may give more consistent management of remedial actions). 2. Product application o The processes for taking remedial action in response to feedback from operational experience, fault analysis or incident. E.g. revision to installation, test, maintenance and operation instructions, the priority of timely response (scheduled update/emergency change/special inspection notice). This review may prompt revision to standards publications for: - product approval (NR/L2/RSE/100), application specifications and maintenance specifications for signalling products, and is expected to require collaboration with the respective standards owners.
Expected timescale for:- review – 4 months (30-6-21) standards update – 12 months (31-3-2022)
Evidence required to support closure of recommendation

Review notes, including participants, scope and intent, and summary findings to inform action plan completion.

Where required, standards change evidence, including steering group remit approval, implementation plan and compliance dates, revised standard content.