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6 December 2021

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

Dear Andrew,

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

I write to report¹ on the consideration given and action taken in respect of the recommendations 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 and the status decided by ORR. The status of all 3 recommendations is '**Progressing**'.

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 7 December 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

Initial consideration by ORR

1. All 3 recommendations were addressed to ORR when the report was published on 14 December 2019.
2. After considering the recommendations ORR passed all 3 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.
3. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

This recommendation recognises that experience from previous years' leaf-fall seasons is an important input to planning railhead treatment but will not take account of effects due to rolling stock changes since then.

Network Rail should review and update its processes so that teams responsible for planning autumn railhead treatment are made aware of, and take account of, changes in rolling stock which have happened, or are expected to happen, since the start of the previous autumn and which may affect the wheel-rail interface

ORR decision

4. On the basis of the information initially provided we challenged Network Rail to clarify if the work being done will help Network Rail staff planning railhead treatment to take account of changes to rolling stock, rather than just the introduction of new rolling stock. Also, the section of the revised standard shows there is now a prompt to consider if new rolling stock is being used on a route when planning railhead treatment, but it is not clear what they are prompted to then do.
5. We have challenged Network Rail to consider these issues in addressing the recommendation and have now received verbal assurance that the autumn preparedness section of the ops procedure will refer to changes to rolling stock rather than only new rolling stock.
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
 - 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

7. On 20 April 2021 Network Rail provided the following initial response:

Action Plan

Please provide milestones with dates

Review and update to standards required:

NR/L3/OPS/021 – Managing the Weather – Earthworks
NR/L3/OPS/045/3.17 - Weather Arrangements

The following questions have been added to the standards above:

Have all sites of Low Rail Adhesion (LRA) and Wrong Side TCF been included in your treatment plan?

Is there any new rolling stock planned for service this Autumn?
Have high risk signals, level crossing activation points been included into your plan where these new trains are pathed?

These two questions will cover the risks imposed and challenge Routes to have all conflict areas treated and consider the above risks.

Standards working group to include RHTT planner/NOC representation as part of the over-arching adverse weather working group form part of the two standards being reviewed. The review of section 12 in NR/L3/OPS/045/3.17 will include changes following the Wessex trials in Autumn 2020 and embed Norwich Road RAIB recommendation 1.

The briefing and implementation plan will be cascaded throughout the business including Head of Ops principles & standards, Operational Weather resilience managers and route asset managers along with seasonal delivery specialists.

The standards review and proposed amendments have a completion date by end of June 2021 at which point the standards will go out for review with a publication and compliance date of September 2021.

Evidence required to support closure of recommendation

Publication of standards September 2021

8. On 25 October 2021 Network Rail provided the attached documents:

- NOP – weather arrangements



NR_L3_OPS_045_3.1
7.pdf

- NR/L3/OPS/021 – weather management index



NR_L3_OPS_021.pdf

9. On 29 October 2021 Network Rail provided the following updated action plan:

10. Action Plan

Please provide milestones with dates

Based on the recommendation, the following questions were added to the Autumn 2021 Stage Gates, which are reported back to the National Weather Team for risks to be onward shared with the industry.

Have all sites of Low Rail Adhesion (LRA) and Wrong Side TCF been included in your treatment plan?

Is there any new rolling stock planned for service this Autumn?
Have high risk signals, level crossing activation points been included into your plan where these new trains are pathed?

Based on feedback, the question set will be amended to ask about changes to rather than new rolling stock.

An emergency change will begin to be processed in the week beginning 1st November to apply an appropriate emergency change to the Autumn section of NR/L3/OPS/045/3.17 Weather Arrangements, to ensure that the recommendation becomes a standardised requirement. Briefing material will be produced for this emergency change and cascaded to stakeholders, including the Head of Operations Principles and Standards.

A standards working group will be established before the end of November to formalise this emergency change and other emergency changes currently applied to the standard. This will include NOC representation and a member of the Seasons Management Team (Seasons Delivery Manager or Specialist) who own the route railhead treatment plan. Further working groups will be established as required.

Evidence required to support closure of recommendation

Publication of emergency change to NR/L3/OPS/045/3.17 – November 2021?
Publication of reviewed NR/L3/OPS/045/3.17 - June 2022

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

10. 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.

11. 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

12. 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

13. 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.

14. 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

15. 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
 - the management of remedial actions taken from the trial experience
 - 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
 - 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.