Oliver Stewart
RAIB Recommendation Handling Manager

6 August 2025

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Train overspeeding at Spital Junction, Peterborough station on 4 May 2023

I write to report[1] on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 16 September 2024.

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 1 & 2 is **'Closed'**. The status of recommendations 3 & 4 is **'Open'**.

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.

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 4 recommendations were addressed to ORR when the report was published on 16 September 2024.

2. After considering the recommendations ORR passed recommendation 1 to Grand Central, recommendations 2 & 4 to Network Rail and recommendation 3 to RSSB 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. ORR also brought recommendations 1 & 2 to the attention of TOCs and FOCs and recommendation 4 to the attention of other infrastructure managers as it was concluded that that there are equally important lessons for them. ORR did not ask these organisations to provide a reply.

Recommendation 1

The intent of this recommendation is to reduce the risk of Grand Central's train operations by providing its drivers with additional skills to manage the approaches to signals controlling multiple routes.

Grand Central should review, and amend as necessary, its training and competence management processes to provide all its drivers with the necessary skills and strategies to manage the risk encountered at signals which may show different aspects to those usually encountered.

ORR decision

4. Following the incident, Grand Central took several actions to enhance driver safety and training, including briefing on relevant incidents, an update of all route risk assessments and an increased focus on Non-Technical Skills (NTS). NTS are being prioritised through training, policy updates, and future integration into the Competence Management System (CMS).

5. Grand Central developed a simulator scenario starting at the signal near Spital, allowing drivers to review route-specific risks and discuss appropriate driving techniques. This session was documented in the driver's CMS file and proved effective. The scenario will be added to the general simulator training package, with more scenarios planned due to work with the East Coast Digital Programme.

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

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

Status: Closed.

Information in support of ORR decision

7. On 9 December 2024 Grand Central provided the following initial response:

(a) full details of any measures taken to implement the recommendation

As an immediate post incident response, we issued an initial bulletin (9th May 2023) advising drivers of the incident and later an updated bulletin (8 th June 2023) when more details of the incident became evident.

We have also included verbal questioning by all assessors to ensure drivers were applying proactive mitigation when approaching complex areas such as junctions with multiple routes, including P468, on Formal Driving Assessments and we always encourage the use of risk triggered commentary when it is identified that a driver isn't using this as standard practice, however we do not mandate this practice.

We reviewed and updated all Grand Central route risk assessments and made these available to GC drivers via SharePoint.

We included review and discussion of the incident as part of our 2024 Driver Safety Brief. This gave our assessors and drivers an opportunity to review the incident, understand what traps signalling systems can set and mitigation measures individuals use to avoid falling into these traps.

Our driver management team has been enhanced with new roles and managers, new drivers have been recruited and more learning and understanding of non-technical skills (NTS) has evolved, we feel it appropriate and timely to invest and further embed NTS into our management of drivers.

We include NTS in driver training, briefings and professional driving policy handbook and are in the process of prioritising a re-emphasis in relation to NTS through managers attending the RSSB NTS course.

The Driver Management Team have been enrolled onto RSSB Non-Technical Skills training January 2025 (earliest available date). Once they all have a comprehensive understanding of the subject, we intend on rolling out non-technical skills training to our driver community as part of our core and ongoing training programmes and we will be considering the inclusion of Non-Technical Skills in our Competence Management System.

(b) full details of any measures that you propose to take to implement the recommendation and the proposed timetable for securing that implementation.

The driver involved in the incident worked extensively with the Occupational Psychology Centre (OPC) to assess suitability to return to driving and we are currently considering the possibility of incorporating an OPC training module to deliver to current and future drivers joining Grand Central.

We will be creating several simulator scenarios where a signal displays an indication for a much slower diverging route when a train is at high speed.

Finally, and as requested by telephone, I can advise that following the LUMO incident on 17th April 2022 we issued information and guidance to our drivers via email. Once the final report was issued, we reviewed the recommendations and a result of this made no changes to our Competence Management System or training programme.

8. On 26 February 2025 ORR wrote to Grand Central as follows:

The letter states Grand Central is planning to create several simulator scenarios where a signal displays an indication for a much slower diverging route when a train is at high speed. Please can you provide an update on this work.

In addition, can you confirm if your review of route risk assessments looked at locations with a risk of overspeed similar to Spital Junction?

9. On 7 March 2025 Grand Central provided the following response:

I have spoken to our Training and Simulator Manager who advises that following the incident we created a scenario for the simulator and held a simulator session which started at the offending signal (just north of Spital). This offered an opportunity to discuss the specific route risks associated with the location of the incident and an opportunity to discuss techniques the driver would adopt going forward as part of the support provided generally and when approaching complex signalling areas. This simulator session has been documented within their CMS file as part of their return-to-work support and was very successful.

This scenario will be incorporated into the overall driver simulator training package provided to our drivers and the plan is to provide additional scenarios in the coming months, this is due to the ongoing work with the East Coast Digital Programme.

We integrated the simulator into the drivers' CMS assessment cycle early in 2024, this enables us to identify and address knowledge, understanding, or application of operational rules and procedures gaps. A recent example is the rule on stopping after observing an obstruction on an adjacent line that poses a danger to oncoming trains. This scenario has been incorporated into the 2025 safety brief.

We can confirm that overspeed risks have been identified and clearly annotated within the route risk assessments. Junction speeds for diverging junctions are also indicated, and restrictive speed fonts have been bolded and highlighted to draw attention to these risks (please see attached examples). These enhancements were implemented across all assessments following consultation with our ASLEF H&S representatives.

I am meeting the Training and Simulator Manager on Monday to understand the timeline to include additional overspeed risk examples in the simulator training package.

Recommendation 2

The intent of this recommendation is to improve the quality and the follow-up of incident investigations carried out by the industry which involve risks that need to be managed between industry parties, so that safety lessons can be learnt and shared in an open manner and cross-interface risks be more effectively managed.

Network Rail, working with transport undertakings using its infrastructure, should review the processes by which they identify, share and implement safety learning from accidents and incidents that involve risks which need to be managed by more

than one party. This review should consider legal requirements, including the duty of co-operation, good practice, such as that contained in Rail Industry Standard, RIS-3119- TOM 'Accident and Incident Investigation', RIS-3704-TOM, 'Managing Train Accident Risk Arising from Infrastructure Assets and Train Operations' and safety learning from other industries.

The review should also consider how those risks are equitably shared and appropriately controlled between Network Rail and the different organisations using its infrastructure.

Following this review, Network Rail should develop a timebound plan to make any appropriate changes identified to standards, processes and its organisational structure

ORR decision

10. Initially the recommendation was directed to Network Rail to act upon. Following discussion with Network Rail and RSSB, the recommendation was redirected to RSSB.

11. RSSB has provided a summary of existing measures for sharing information across industry in response to safety incidents. RSSB plans to improve sharing of information and cooperation through the cross-industry Rail Investigation Group (RIG). The group is developing a shared learning portal for GB rail to report incidents and lessons from investigations. This data will support trend analysis and guide the creation of industry guidance and learning documents. These documents will be reviewed by the group and published on RSSB's website, highlighted in established channels like the Rail Safety Review, and suggested for publication on Safety Central and in Network Rail communications.

12. We consider the recommendation closed on the basis of the information provided by RSSB but will follow up with Network Rail on changes to any standards or processes made in response as part of our business as usual engagement.

13. 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
- taking action to close it.

Status: Closed.

Information in support of ORR decision

14. On 15 December Network Rail provided the following initial response:

There is an industry working group now that is working on these exact issues but given the intent and requirement to update the RIS we remain confused why we would be the lead owner for this recommendation. NR would be completely reliant on

the commitment and timescales of another organisation to deliver the recommendation which goes completely against the role of the owner in our view.

Could you review the allocation of this recommendation to Network Rail please? Happy to meet if that is easier.

15. On 9 May 2025 ORR addressed the recommendation to RSSB.

16. On 12 June 2025 RSSB provided the following response:

We appreciate that RSSB has been reallocated this recommendation as we play a large part in sharing lessons learnt with GB rail, from within GB rail itself, but also non-GB rail incidents and non-rail incidents. This process was formalised to an extent regarding non-rail events in our work to support Network Rail address Recommendation 3 in the report on software issues experienced on the Cambrian line.

While RSSB can – and will – continue to produce learning materials, sharing with a wide audience via a range of products, we propose to use the existing cross-industry Rail Investigation Group (RIG), on which RAIB and the ORR are represented – to help increase its reach.

The RIG specifically collates and produces resources and guidance to support the industry in carrying out rail accident investigations. However, it is also an excellent forum to share lessons from investigations with RSSB, with a view to producing a summary such as those samples attached.


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The group is creating a shared learning portal, which will allow GB rail to share incidents or learning from investigations, which the group will use to 'trend spot'. This will inform guidance created by the group, along with any relevant RED episodes. It will also feed into the creation of the aforementioned learning documents, which the group will sense-check before they are posted on the RSSB website's learning from experience webpages and flagged in well-established products like the Rail Safety Review, and other mailouts.

We suggest that the same learning documents should also find a home on Safety Central and be similarly publicised by Network Rail in its own mailouts.

What RSSB cannot do, however, is implement any safety learning from accidents and incidents, per the original wording of the recommendation. RSSB is not constitutionally permitted to do this; that is the role of the individual duty holders.

With all this in mind, we suggest that the recommendation may be formally closed.

Recommendation 3

The intent of this recommendation is to minimise the possibility of drivers not correctly reading signals by ensuring that the conspicuity of the necessary elements of junction indicator signals is optimised.

The Rail Safety and Standards Board should review the specifications for the procurement of signal aspects stated within Rail Industry Standard RIS-0737-CCS and Railway Group Standard GKRT0057. This should include consideration of vertical separation and relative brightness of main aspects and junction indicators to understand the effects on conspicuity of the complete signal at distances up to which a signal is required to be readable. The Rail Safety and Standards Board should then consult with industry on the findings of this review and, if appropriate, update the relevant standards which will be used by industry in its specifications for the procurement of signal equipment

ORR decision

17. RSSB reported that before the recommendation was issued, Standards Project 24-003 was already in place to revise RIS-0737-CCS (Signal Sighting Assessment Requirements). The project scope has been expanded to also review GKRT0057 (Lineside Signal and Indicator Design), aligning with the recommendation's intent. To provide interim guidance before the formal updates is published, RSSB will issue a Technical Note on Junction Signalling.

18. Additionally, RSSB is supporting Network Rail with Recommendations 2 and 3 from the July 2023 RAIB report into an earlier overspeed incident at Spital junction. This includes facilitating cross-industry collaboration on signalling risk assessments and developing a junction overspeed risk assessment tool through the Overspeed Group (OSG).

19. 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
- is taking action to close it, but ORR has yet to be provided with a timebound plan.

Status: Open.

Information in support of ORR decision

20. On 6 December 2024 RSSB provided the following initial response:

We accept the recommendation with the note that RSSB standards project 24-003 is already in development to revise rail industry standard RIS-0737-CCS (Signal Sighting Assessment Requirements). The scope of the original project has been expanded to include the review of railway group standard GKRT0057 (Lineside Signal and Indicator Product Design and Assessment Requirements) specifically to address the intent of the recommendation.

In order to make guidance available before the updated standards are published, RSSB will also issue a Technical Note (Junction Signalling) to:

1. Reaffirm the current content and the intention of both standards relevant to vertical separation, relative brightness and readability
2. Provide further applicable guidance, and
3. Seek industry feedback.

If appropriate and following receipt of industry feedback, project 24-003 will facilitate the incorporation of further relevant content into RIS-0737-CCS and GKRT0057 as part of the project plan.

As you will be aware, RSSB is assisting Network Rail with Recommendations 2 and 3 from RAIB's report on the overspeed at the same location on 17 April 2002. In brief, RSSB is facilitating cross-industry collaboration to consider the risk assessment process applied to the Spital Junction signalling. In addition, the cross-industry Overspeed Group (OSG), facilitated by RSSB, is also improving the management and understanding of overspeed risk more generally. A project is under way re a junction overspeed risk assessment tool (see attached project brief).

Recommendation 4

The intent of this recommendation is to manage the risk of a driver not seeing a route indication because of the gradual reduction in light output of LED modules over time.

Network Rail should review its current arrangements for maintenance and replacement of LED indicators used for signalling purposes considering the expected degradation in performance that is predicted to occur over time. This review should identify how this degradation will be managed to prevent the reduction in output reaching a point where its readability to approaching drivers may be affected to an unacceptable degree. Network Rail should then implement any necessary improvements to the arrangements that have been identified as part of this review

This recommendation may also apply to other railway infrastructure managers.

ORR decision

21. Network Rail has provided a plan for updating NR/L3/SIG/10661 (Signalling Maintenance Task Intervals) and NR/L3/SIG/10663 (Signalling Maintenance Specifications) to provide consistent timescales for LED indicators across all suppliers. Network aim to publish the updated standards in September 2025, with briefing and implementation completed by December 2025.

22. 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 close it by December 2025.

Status: Open.

Information in support of ORR decision

23. On 21 January 2025 Network Rail provided the following initial response:

Action Plan
Please provide milestones with dates
Review of standards was carried out during November 2024. Plan to update NR/L3/SIG/10661 and NR/L3/SIG/10663 to provide consistent timescales for LED indicators across all suppliers – Target September 2025 publication. Briefing and implementation complete by December 2025.
Risk and interdependencies
Risk of not implementing change is inconsistent replacement of degraded indicators, potential for misreading as was the case in RAIB report. If SMSSG (Signalling Maintenance Specification Steering Group) do not accept updates to 10661/10663 the risk will still be present. The Signalling Reliability Group have been tasked by SATR (Signalling Asset Technical Review) to undertake a review of the ROSE process (NR/L3/SIG/10665) requirements.
Evidence required to support closure of recommendation
Updated maintenance specification publication.

24. On 26 February 2025 ORR wrote to Network Rail as follows:

The action plan states that Network Rail will seek to close the recommendation when the update maintenance specification is published. What measures are being taken to embed the new specification, noting briefing and implementation are planned to be complete by December 2025?

25. On 4 March 2025 Network Rail provided the following response:

I would expect a maintenance scheduled task to be scheduled in Ellipse as with any other similar replacement interval.

Is the question, how we might catchup on any that should have been replaced? If so we'd have to go and find out how likely that is and what we will do. Although noting that the report itself notes that the time such indicators spend alight is much less than their time installed, so think the risk will be small.