

Oliver Stewart
RAIB Recommendation Handling Manager



12 February 2026

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Passenger train collision with a road vehicle at Redcar level crossing, North Yorkshire on 1 May 2024

I write to report¹ on the consideration given and action taken in respect of the recommendation addressed to ORR in the above report, published on 3 April 2025.

The annex to this letter provides details of actions taken in response to the recommendation and the status decided by ORR. The status of recommendation 1 is **'Open'**.

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

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. The recommendation was addressed to ORR when the report was published on 3 April 2025.
2. After considering the recommendation ORR passed recommendation 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. ORR also brought recommendation 1 to the attention of Amey Infrastructure Wales as it was concluded that that there are equally important lessons for them. ORR did not ask them to provide a reply.

Recommendation 1

The intent of this recommendation is to reduce the risk of signallers at Redcar, and other signal boxes with similar ergonomic issues, making errors.

Network Rail should undertake an ergonomics and human factors assessment of the signal box at Redcar, with a particular focus on how information about the status of Redcar level crossing is made available to the signaller.

This assessment should take into account relevant standards and good practice and should specifically consider the equipment layout of the signal box and how this impacts the signaller's interaction with signalling equipment and their safe control of level crossings. It should also consider any changes in signaller workload and practice which are likely to be associated with changing volumes of rail and road traffic passing over the crossings. This assessment should be used to inform an assessment of the practicability of potential future improvements to the layout of the signal box, and to consider if changes are required to operational processes. Network Rail should develop a timebound plan to implement any necessary improvements or changes identified.

Network Rail should also consider undertaking such studies at other signal boxes where information that is essential for the signalling of trains comes from multiple locations in the box

ORR decision

4. Network Rail has commissioned an ergonomics and human factors assessment of the Redcar signal box against relevant standards. Network Rail aim to have a plan agreed for delivery of any improvements identified in the review by September 2026.
5. We have asked Network Rail to explain how the final part of the recommendation (applicability to other signal boxes) will be addressed.
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 close it.

Status: Open.

Information in support of ORR decision

7. On 21 October 2025, following discussion with Network Rail, the following updated initial response was provided:

Lead Manager(s)	Richard Bye
Recommendation	<i>Passenger train collision with a road vehicle at Redcar level crossing</i> <i>RAIB 05/2025 Recommendation 1</i> <i>The intent of this recommendation is to reduce the risk of signallers at Redcar, and other signal boxes with similar ergonomic issues, making errors.</i> <i>Network Rail should undertake an ergonomics and human factors assessment of the signal box at Redcar, with a particular focus on how information about the status of Redcar level crossing is made available to the signaller. This assessment should take into account relevant standards and good practice and should specifically consider the equipment layout of the signal box and how this impacts the signaller's interaction with signalling equipment and their safe control of level crossings. It should also consider any changes in signaller workload and practice which are likely to be associated with changing volumes of rail and road traffic passing over the crossings.</i> <i>This assessment should be used to inform an assessment of the practicability of potential future improvements to the layout of the signal box, and to consider if changes are required to operational processes. Network Rail should develop a timebound plan to implement any necessary improvements or changes identified.</i> <i>Network Rail should also consider undertaking such studies at other signal boxes where information that is essential for the signalling of trains comes from multiple locations in the box (paragraphs 128a.ii and 129b).</i>
Implementation	North and East Route

**Forecast
Completion Date:**

28 May 2027

Action Plan**Please provide milestones with dates****1. Remit for an Ergonomics and Human Factors Assessment of Redcar Signal Box (15 December 2025)**

The Network Rail (NR) Ergonomics and Human Factors (EHF) team will work with route operations and engineering teams to assess the compliance of Redcar signal box against relevant standards (e.g. NR/L2/ERG/24017 and NR/L3/OPS/045/3.37).² This activity will inform the development of a remit for i) an evaluation of the box's layout, controls, indications and operational processes, and ii) an analysis of the operational demands (and the resulting workload) at the box. The remit and an accompanying RAIDO (risks, assumptions, issues, dependencies and opportunities) log will be produced by NR's EHF team and will be presented to North and East route for endorsement.

2. Ergonomics and Human Factors Report and Recommendations (31 March 2026)

The North and East route will work with the Head of Ergonomics and Human Factors to contract a suitably qualified and experienced EHF supplier to deliver a holistic evaluation of Redcar signal box in order to meet the requirements set out in the remit. The analysis, results, and recommendations will be documented in a final report which will be presented to the Head of Ergonomics and Human Factors for review and acceptance.

3. Option Selection Report (31 July 2026)

The recommendations for improvements to Redcar signal box will be subject to a technical feasibility assessment, an asset management review, and a cost benefit analysis by the route. Any options that meet defined success criteria will be taken forward for consideration by the appropriate investment panel. The panel decision will be made before 31 July 2026.

4. Time-Bound Plan for Enhancements (30 September 2026)

The delivery of the agreed improvements will be described in a resource-loaded implementation plan – all items in scope will be documented in a suitable format so that they can be tracked to closure.

5. In-Service Review (28 May 2027)

² NR's control room standard (NR/L2/ERG/24017) aligns with the best practice set out in ISO 11064 and contains a checklist that's specifically designed for refurbishment projects.

Following the delivery of the agreed improvements, the NR EHF team will complete an in-service review of Redcar signal box. This in-service review will confirm that the changes made to the box address the recommendation and that any residual and/or emerging human-system interface risks have been controlled. In parallel, learning will be shared with all other regions so that they can “consider undertaking such studies at other signal boxes”.

Risk and interdependencies

- 1. Funding will be required from North and East route to complete the EHF assessments.*
- 2. Although design options may have a positive CBA, the budget may not be available to deliver the proposed improvements to Redcar signal box within the specified timescales. If the work must be deferred until funding becomes available, the recommendation will be transferred from the Technical Authority (TA) to the North and East route. The route’s decision to defer upgrades will be supported by a risk assessment and the TA will track the recommendation to closure.*
- 3. It may not be feasible or proportionate for NR to “consider undertaking such studies at other signal boxes where information that is essential for the signalling of trains comes from multiple locations in the box”. With this in mind, and to control for risks in similar locations, NR will disseminate learning, produce specific training material for operations development days and review arrangements for overrun protection (NR/SIN/217).*

Evidence required to support closure of recommendation

- 1. EHF report and recommendations.*
- 2. Option selection report.*
- 3. Time-bound plan for the delivery of practicable enhancements.*
- 4. In-service review.*
- 5. Evidence of BAU processes to manage risks at similar locations.*

Action Plan Checklist

<i>Are resources in place to deliver this action plan and task allocated to the correct owner?</i>	<i>Yes</i>
<i>Are the actions timebound and overall timescale appropriate to the risk?</i>	<i>Yes</i>
<i>Have you considered and noted any overlap with other related safety initiatives in progress elsewhere in the business?</i>	<i>Yes</i>
<i>Have you identified the risks and interdependencies of this action plan?</i>	<i>Yes</i>
<i>Have you considered how you will track/monitor the delivery of this plan?</i>	<i>Yes</i>
<i>RAIB Recommendations - I have included the output from the cost benefit analysis tool (if appropriate to use) and/or the benefits of delivering the recommendation.</i>	<i>N/A</i>

Action Plan Approval

I as the Network Technical Head (or Band 1 or above equivalent with relevant accountabilities) approve the action plan for delivery of this recommendation. I confirm I have reviewed the action plan and I am satisfied that it meets the recommendation intent and the required criteria above.

Name:

Simon Morgan

Role:

Head of Corporate Safety

Date:

13 October 2025