Oliver Stewart
RAIB Recommendation Handling Manager

6 August 2025

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Collision between a train and a collapsed signal post at Newbury on 17 November 2014

I write to provide an update[1] on the action taken in respect of recommendations 3 & 5 addressed to ORR in the above report, published on 23 September 2015.

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 3 & 5 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 3

The intent of this recommendation is to reduce the vulnerability of the routine examination and maintenance regimes to missing failures of ancillary structures that are currently subject to visual examinations only.

Taking account of the emerging findings from the implementation of Recommendation 1, Network Rail should review its examination and maintenance regimes for ancillary structures and make any necessary improvements to ensure that its processes are commensurate with the risk arising from the failure of those structures (paragraphs 96b, 96d and 99). The review should include, but not be limited to, consideration of the following areas:

- a regime of periodic enhanced examinations for ancillary structures (such as the Detailed Examination regime applied to bridges and other complex structures);
- consideration of the special requirements for examination of the buried elements of planted posts;
- a means for assessing the internal condition of hollow section structures as well as their external condition;
- re-designing the examination forms (whether electronic or paper versions) to improve usability for the examiners, to clarify the need to report hidden critical elements that were not examined and to improve reporting lines between Network Rail and its examinations contractors;
- revising the competence standards for staff involved in the examination of structures to ensure consistency in the level of training received both by those who are new to the industry as well as experienced examiners; and
- cyclical maintenance of any surface treatments on ancillary structures.

Changes made as a result of the review should be re-briefed to all those involved in structures examinations and relevant company standards and other documents should be updated as appropriate.

ORR decision

1. Network Rail has reviewed its examination maintenance regime for ancillary structures and revised inspection regimes and introduced new IT systems.

2. Inspection requirement for complex ancillary structures are covered in standard NR/L3/CIV/006/1A Cl 7.6, which includes an appendix on how to identify relevant structures.

3. The Ancillary Examination System (AES) was introduced as an interim IT solution ahead of deployment of the Network Enterprise Structures and Tunnels system (NEST), to provide improved asset information. The first increment of NEST titled “Inventory and Content Manager” forms the asset register, recording details like, location, construction form, material type(s), ownership and stakeholder information against each asset.

4. 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

5. On 30 May 2024 ORR reported the following:

Following the work to address recommendation 1, Network Rail has a number of further workstreams to deliver aimed at reducing the risk of routine examination and maintenance regimes missing failures of ancillary structures:

- Consult and brief Ancillary Asset Management guidance
- Publish NR/L3/CIV/006 Guidance Note
- Intelligent Infrastructure Solution - Build of NEST to include structured data requirements
- Development of a risk-based approach to implementation of Ancillary Asset Examinations

We will monitor delivery of the different elements through our regular liaison with Network Rail. We note completion of the work is not expected until July 2025, in part to accommodate the introduction of the relevant part of the NEST system, which is being delivered by the Intelligent Infrastructure programme. A significant and ongoing package of interim mitigations continue to be applied whilst the work to fully implement the recommendation continues.

Update

6. On 8 July 2025 Network Rail provided the following closure statement:

[N241-12] Newbury Rec 3.pdf

Recommendation 5

The intent of this recommendation is to prevent the risk of internal corrosion to hollow signal posts in future.

Network Rail should develop a specification for a new signal post, or a modification to existing posts, that eliminates or mitigates the risk of internal corrosion (eg, preventing water ingress, improving drainage, internal surface treatments), taking account of whether the galvanisation specified since 1993 (paragraph 17) is adequate and applicable to other designs of post (paragraph 96a). The specification should be implemented on new installations or to replace existing structures where opportunities arise to do so and where risk assessments indicate that it is necessary and appropriate.

ORR decision

7. Network Rail has addressed the recommendation by amending standard NR/L2/SIG/19820/E04 (Signalling and Level Crossing Product Specifications: Signal Structures) to clarifying measures to control the risk of internal corrosion in signal posts. Design life and protective treatment will be separated into different sections.

8. The revised wording provided by Network Rail on 3 June 2025 improves the specification with respect to limiting the amount of corrosion that can build up. In particular it draws attention to the need to manage water ingress and mentions that the reason is to avoid internal corrosion developing.

9. 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

10. On 21 September 2016 ORR reported the following:

In addressing the recommendation to Network Rail ORR noted that recommendation 5 imposes a continuing obligation. However, ORR indicated that it would consider recommendation 5 complied with once Network Rail has developed a specification for a new signal post, or a modification to existing signal posts, and confirms that this will be implemented in accordance with the recommendation. Network Rail's initial response stated that they had undertaken a review of applicable controls and was considering the status of NR/L3/CIV/067; the recommendation is to *'develop a specification for a new signal post, or a modification for existing signal posts'* and Network Rail's initial response did not clearly address this. Further exchanges between ORR and Network Rail have not yet clarified the specific actions they are proposing to take in relation to the recommendation.

Update

11. On 27 January 2020 Network Rail provided the following update:

All the RAIB recs (including Newbury) were discussed at QLM last week (22nd Jan). I've attached a summary which has been shared with the ORR.

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The crux of the plan to close all the Newbury recommendations is the delivery of an examination tool that is being delivered by a 3rd party. This delivery has been delayed,

The current plan is for the examination tool (IT solution) to be complete on the by the end of February 2020. Following completion of the 3rd party activity the action plan to close all the Newbury Recs is as follows:

- *Completion of IT Solution*
- *Completion of Guidance Note*
- *STE Structures Guidance Note Review*
- *Issue Guidance Note to other disciplines STE teams for comment*
- *Collate feedback*
- *Updated guidance notes*
- *Issue Guidance notes & begin briefings*

12. On 10 August 2021 Network Rail provided the following closure statement:

[N190-06] Newbury Rec 5 Closure updat

13. Network Rail state the following:

A new product specification has been created in liaison with Network Rails civil engineering discipline to define the requirements of a signal post. The standard was published in June 2021 with a compliance date 4 September 2021. The standard has been attached for reference.

NR_L2_SIG_19820_E 04.pdf

14. On 12 July 2023 Network Rail provided the following update:

Further to the earlier Newbury Rec 5 review, we are now proposing to address the concerns raised by providing an updated and more detailed closure statement replacing the previous submission (attached)

[N190-06] Newbury Rec 5 Closure update

The team believe the problem was that we didn't give the full picture in the last closure statement and we don't think an update to E04 is necessary. The proposed closure will look to cover the below:

- *Specification NR/L2/SIG/19820/E04 is intended to provide the signal engineering requirements for signal structures and not the detailed civils design.*
- *The assurance of design of signal structures, as with other structures, comes under NR/L2/CIV/003 (Engineering and Architectural Assurance of Building and Civil Engineering Works) resulting in a FormA (Certificate of Approval in Principle) and FormB (Certificate of Design and Check).*
- *Those designing a signal structure would be required to define the technical design requirements as part of the CIV/003 process and this would include setting the design life and corrosion protection requirements with consideration to standards including NR/L2/SIG/19820/E04 (specification), GN/CIV/002 (use of protective coatings and sealants), NR/L2/CIV/003/F1990, L2/CIV/040 (Specification for the use of protective coating systems) and L2/CIV/039 (Assessment and certification of protective coatings).*
- *Galvanisation and a hole at the foot of the post has been specified in standard designs since at least 1992. The investigation report found that the post at Newbury was ungalvanized.*

15. On 3 June 2025 Network Rail provided the following update:

In line with discussion on Friday, I've proposed a set of revised wording that can be incorporated into NR/L2/SIG/19820/E04 to address the intent of Newbury Recommendation 5 more explicitly.

To aid clarity this has now separated the current section 4.5 into two separate sections on design life and protective treatment as set out below. I've subsequently got this checked by those in my team that led on the recent update of the protective coating standards.

Whilst there is no expectation that you would choose to comment, if there were concerns that this proposal does not sufficiently address the intent of the recommendation it would be very helpful if you flag this in advance of Colin getting too far through the amendment process.

4.# Design life

[Green clause] *The design life of a signal structure is 35 years in accordance with the NR Asset Management Signalling Policy.*

[Amber clause] The design of a signal structure shall meet the required design life.

[Amber clause] Signal structure designs that incorporate hollow sections shall include measures to prevent water ingress and mitigate the risk of internal degradation should ingress occur.

[Green clause] Note: This is to avoid the development of internal degradation that may not be externally visible or easily detected.

4.# Protective treatment

[Green clause] Requirements and guidance for the use of protective coatings and sealants are provided in NR/L3/CIV/040 and NR/GN/CIV/002.

[Amber clause] The surface treatment shall permit repair without dismantling the structure.

[Amber clause] The surface finish shall be low or semi-gloss in grey/silver e.g. RAL 7000 series.

[Green clause] For hollow section structural steelwork where there is a risk of internal corrosion, hot dip galvanizing is preferred. Where galvanizing is the sole protective treatment, the thickness of galvanizing needs to be adjusted to suit the local environmental conditions.

Previously reported to RAIB

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Changes made as a result of the review should be re-briefed to all those involved in structures examinations and relevant company standards and other documents should be updated as appropriate.

ORR decision

1. Following the work to address recommendation 1, Network Rail has a number of further workstreams to deliver aimed at reducing the risk of routine examination and maintenance regimes missing failures of ancillary structures:

- Consult and brief Ancillary Asset Management guidance
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- Development of a risk-based approach to implementation of Ancillary Asset Examinations

2. We will monitor delivery of the different elements through our regular liaison with Network Rail. We note completion of the work is not expected until July 2025, in part to accommodate the introduction of the relevant part of the NEST system, which is being delivered by the Intelligent Infrastructure programme. A significant and ongoing package of interim mitigations continue to be applied whilst the work to fully implement the recommendation continues.

3. 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 12 July 2025

Status: Open.

Previously reported to RAIB

4. On 21 September 2016 ORR reported the following:

ORR is content with the proposed action plan and milestones submitted in response to the recommendation and will seek updates on progress through its regular liaison meetings with Network Rail.

Update

5. On 17 April 2024 Network Rail provided the following timescale extension:

Newbury RAIB Recommendation 3 -

Recommendation 5

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Network Rail should develop a specification for a new signal post, or a modification to existing posts, that eliminates or mitigates the risk of internal corrosion (eg, preventing water ingress, improving drainage, internal surface treatments), taking account of whether the galvanisation specified since 1993 (paragraph 17) is adequate and applicable to other designs of post (paragraph 96a). The specification should be implemented on new installations or to replace existing structures where opportunities arise to do so and where risk assessments indicate that it is necessary and appropriate.

ORR decision

6. In addressing the recommendation to Network Rail ORR noted that recommendation 5 imposes a continuing obligation. However, ORR indicated that it would consider recommendation 5 complied with once Network Rail has developed a specification for a new signal post, or a modification to existing signal posts, and confirms that this will be implemented in accordance with the recommendation. Network Rail's initial response stated that they had undertaken a review of applicable controls and was considering the status of NR/L3/CIV/067; the recommendation is to *'develop a specification for a new signal post, or a modification for existing signal posts'* and Network Rail's initial response did not clearly address this. Further exchanges between ORR and Network Rail have not yet clarified the specific actions they are proposing to take in relation to the recommendation.

7. 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 not provided a sufficient response setting out how it will be delivered.

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

Information in support of ORR decision

8. On 16 December 2015 Network Rail provided the following initial response:

Network Rail will undertake a review of the applicable standards, instructions and template designs used by designers when specifying signal structures to establish that the structure will remain serviceable for the full extent of its expected asset life.

Applicable standards are:

- *NR/L3/SIG/11303 Signalling Installation, Issues 2.*
- *NR/L3/CIV/040 Specification for protective Treatment of Network Rail Infrastructure, Issue 1.*
- *PAN/W/CE/SS/0017 Issue 2: Guidance for Loading and Performance.*
- *PAN/B&C/E/GEN/INS/0059 Structural Euro codes – NR Technical requirements.*
- *BS EN 1990:2002 Basis of Structural Design.*
- *BS EN 1991-1-4 Action on Structures, Wind Actions.*
- *BS EN 1993:2005 Design of Steel Structures.*
- *BS EN 10025-1:2004, Hot rolled products of general structural iron & steel. Technical delivery conditions.*

- *BS EN 10210-1:2006, Hot finished structural hollow sections of non-alloy and fine grain steels – Part 1: Technical delivery conditions.*
- *BS EN ISO 1461:1999 Hot Dip Galvanizing coatings on fabricated steel articles.*

A joint review will be undertaken between signalling and civil engineers within STE and is expected to be completed by 23 February 2016. The outcome of this review will determine what actions are required; these will be formulated into an action plan, which will be managed to closure.

9. On 1 February 2016 ORR informed Network Rail that, in focusing on carrying out a review to determine what actions are required, its response did not address the recommendation, which required Network Rail to develop a specification for a new signal post, or a modification to existing posts, that eliminates or mitigates the risk of internal corrosion.

10. On 13 April 2016, Network Rail provided the following update:

The recommendation action to produce a specification for a signal post prompted a review of applicable controls currently in place, as listed in its response of 16 December 2015.

There is also investigation into the status of draft document NR/L3/CIV/067 - Design of Equipment Support Structures.

The review is intended to establish if the current controls fulfil the recommendation intent, with the two specific issues, firstly to establish if new signal posts manufactured meet requirements for the full life specified for the asset. The second area being a review of the installation processes when modifying an existing signal post, to ensure the integrity of the existing post is not compromised for its remaining life.

This approach aligns with the goals of the business critical rules programme, and any new specification would fit into the document structure set out by BCRP.

11. On 27 May 2016 ORR advised Network Rail the requirement of the recommendation had still not been addressed and requested that it provide confirmation of whether it is taking action to develop a new specification or modification and what the proposed action plan and timescales are to deliver this. Alternatively, if Network Rail is not planning to develop a new specification / modification then ORR will need to be informed why this is the case.

12. A reply was received from Network Rail on 12 August stating that they were not in a position currently to address the recommendation by direct action and that progress on developing an action plan was delayed by negotiations with other Network Rail teams. ORR is currently liaising with Network Rail on this recommendation and the way forward.