

**Oliver Stewart**  
**RAIB Recommendation Handling Manager**



30 May 2024

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<sup>1</sup> on the action taken in respect of recommendations 1 & 3 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 recommendation 1 is '**Closed**'. The status of recommendation 3 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

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<sup>1</sup> In accordance with Regulation 12(2)(b) of the Railways (Accident Investigation and Reporting) Regulations 2005

## Proposed update to RAIB

### Recommendation 1

*The intent of this recommendation is to reduce the risk of failure of ancillary structures across the national rail network.*

Network Rail should review its asset management strategy with the objective of improving the examination and maintenance of its ancillary structures (paragraphs 96a and 98). The review should consider:

- identification of structures at greatest risk of failure (eg by age of the structure, those of hollow section, those without galvanised or otherwise treated surfaces, those in hostile environments) and the possible consequences of failure in the context of wider safety risks to the railway;
- steps to mitigate the risk (such as periodic replacement); and
- specific measures to deal with planted posts as well as those structures fixed to foundations.

### ORR decision

1. Rather than provide a review, Network Rail have summarised the actions being taken. We have inferred from this that a review has been carried out and have put the recommendation forward for closure on the basis that appropriate measures to reduce the risk have been identified.

2. Network Rail now have in place a number of measures to reduce the risk of failure of ancillary structures:

- New risk assessment to identify ancillary structures at greatest risk of failing and falling onto operational railway lines
- Production of Asset Management guidance for Asset Owners
- Development of Ancillary Asset Examination IT Solution.
- Deployment of the Inventory & Content Manager increment within NEST
- Update to structures examination standard NR/L3/CIV/006
- Updated Structures Management Standard NR/L2/CIV/032

3. These improvements are wide ranging and should deliver the benefits envisioned by the recommendation. With the new tools and processes in place, Network Rail is reviewing its examination and maintenance regimes for ancillary structures as set out in recommendation 3.

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 21 September 2016 ORR reported the following:

It is unclear to ORR how Network Rail will address the three specific bullet points outlined in the RAIB recommendation and deliver the intent of the recommendation. ORR has suggested meeting with Network Rail to discuss this further and agree a way forward.

## Update

6. On 4 January 2022 Network Rail provided the following timescale extension to 31 March 2024:



Recommendation  
Extension Newbury R

7. On 16 April 2024 Network Rail provided the following closure statement:



[N225-14] Newbury  
Rec 1.doc

## 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**

8. 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

9. 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.

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
- is taking action to close it by 12 July 2025

***Status: Open.***

**Previously reported to RAIB**

11. 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**

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



Newbury RAIB  
Recommendation 3 -

## Previously reported to RAIB

### Recommendation 1

*The intent of this recommendation is to reduce the risk of failure of ancillary structures across the national rail network.*

Network Rail should review its asset management strategy with the objective of improving the examination and maintenance of its ancillary structures (paragraphs 96a and 98). The review should consider:

- identification of structures at greatest risk of failure (eg by age of the structure, those of hollow section, those without galvanised or otherwise treated surfaces, those in hostile environments) and the possible consequences of failure in the context of wider safety risks to the railway;
- steps to mitigate the risk (such as periodic replacement); and
- specific measures to deal with planted posts as well as those structures fixed to foundations.

### ORR decision

1. It is unclear to ORR how Network Rail will address the three specific bullet points outlined in the RAIB recommendation and deliver the intent of the recommendation. ORR has suggested meeting with Network Rail to discuss this further and agree a way forward.

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; but
- 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

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

*To achieve improvement to the examination and maintenance of ancillary structures, and reduce the risk of failure, STE Structures will lead a working group to develop an integrated policy for the design, maintenance and examination of Network Rail's ancillary asset stock.*

*The working group will include representatives from parent asset owners. (Electrification, Telecommunications, Signalling, Commercial Property, Buildings and Plant).*

*The objective is that the developed policy will minimise whole life, whole system costs and define the most appropriate approach to asset maintenance, inspection and renewal, by looking at:*

- *Asset sub-groups based on structural form and function.*
- *The use of reliability centred maintenance (RCM<sup>2</sup>).*
- *Future design and specification with cognisance to specific recent failures.*
- *Ongoing maintenance / examination / intervention of existing asset stock.*

*The policy should detail:*

*Long term design / specification requirements to minimise intervention and facilitate future examination. Consideration on continued use of hollow sections (and alternate suitable sections), appropriate foundation design (not sensitive to ballast drop), coatings and materials (which maximise durability within the railway environment) and the requirement to undertake cross discipline approval of renewal schemes which affect maintenance and inspection of other assets.*

*Following determination of long term asset strategy, the requirements for examination and intervention can be further developed and detailed within the policy.*

*Network Rail has, in response to the Newbury incident, developed and implemented an initiative to undertake enhanced visual examinations to all ancillary assets currently examined by line of route. The project includes an exercise to produce an accurate inventory of such assets. The output of this exercise will be a full asset register containing information such as asset type, structural form and presence of hidden details, enabling structures at greatest risk of failure to be identified.*

*Following implementation of a programme of enhanced visual examinations and confirmation of asset inventory, the developed ancillary asset policy will detail future examination requirement, consider and implement risk based examination intervals and prioritisation, considering and incorporating as necessary the principles of RCM.*

*Consideration will also be given to the implementation of a programme of hidden critical element examinations (HCEs) to ancillary assets – see the action plan developed to address recommendation 2.*

*Finally, the policy will also detail required parameters for intervention taking into account, long term strategy for future design and specification, expected serviceable life and periodic replacement.*

*Timescale:*

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<sup>2</sup> *Reliability Centred Maintenance is a strategy that is implemented to optimise the maintenance of an asset type. It considers modes of failures, time to failure and intervention types to create the best overall outcome within defined safety parameters.*

*Publish integrated policy for the management of Ancillary Assets by 2 December 2016.*

4. On 1 February 2016 ORR wrote to Network Rail advising that it did not consider that the specific bullet points within the recommendation had been addressed by the response and suggesting that the timescales proposed could be improved, particularly when a significant amount of the work proposed has already been applied in discharging ORR's improvement notice served in December 2014 in respect of visual inspections of straight signal posts.

5. On 10 March 2016 Network Rail provided the following further update: *Please note Recommendation No1 Bullet Points with added notation: -*

- *Identify assets at greatest risk of failure (age, component section, protective coatings, environment, consequence of failure) - Point A.*
- *Steps to mitigate risk (such as periodic replacement) – Point B.*
- *Measures to deal with planted & fixed posts - Point C.*

*To address Rec 1, a multi discipline working group will develop an integrated policy for the management of ancillary assets.*

*In developing the policy; data requirements, examination, evaluation and intervention measures will be reviewed and improved as deemed necessary. Each stage of the asset management process will be developed with due consideration for the identification and management of assets at greatest risk of failure, the determination of suitable risk mitigation, including measures to deal with both planted and fixed posts. (Points A, B & C).*

*The collection, retention and evaluation of asset data will be improved. Contemporary data should be kept for all assets including age, construction form (section type), details of protective coatings provided, location (to determine environmental factors, failure consequences etc.). (Point A) Review of this data, guided by a published policy, will better inform the asset engineer during examination evaluation on current condition, expected serviceable life and suggested interventions. (Points B & C).*

*Examination requirements (including the need for detailed examination and on what frequency for instance) will be determined with full cognisance of the risk factors noted in the recommendation. (Points A, B & C).*

*Policy requirements would include a strategy for intervention and future design and specification based on suitable risk mitigation measures. (i.e. expected design life, strategy for replacement, maintenance of protective coatings etc) (Point B & C).*

*Upon determination of an integrated policy, relevant cross discipline management standards will need to be reviewed, revised and reissued to mandate process improvements. The closure date has been determined to allow sufficient time for the formation the working group, the development of policy and revision of standards and then publication following review and acceptance by stakeholders.*



Milestones to completion: -

- 1) *Establish Working Group (including Parent Asset Owners) – 1 April 2016*
- 2) *Identify NR Standards Requiring Revision - 10 June 2016*
- 3) *Produce Draft Policy for Stakeholder Consultation – 29 July 2016*
- 4) *Produce Draft Management Standards for Stakeholder Consultation – 26 August 2016*
- 5) *Publish Final Integrated Asset Management Policy for Ancillary Assets – 4 November 2016*
- 6) *Publish Revised Management Standards – 18 November 2016*
- 7) *NR Formal Closure of Newbury Rec 1 – 2 December 2016*

6. On 27 May 2016 ORR wrote again to Network Rail explaining that it was still unclear how the three specific bullet points outlined in the RAIB recommendation will be addressed and the intent of the recommendation delivered, and suggesting that a meeting be convened to discuss this further.

**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**

7. 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.

8. 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 by 31 March 2017.

**Status: Implementation ongoing. ORR will advise RAIB when actions to address this recommendation have been completed.**

### **Information in support of ORR decision**

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

*The action plan to address Rec 1 will develop an integrated policy which informs enhanced exam techniques and includes further development of the examination process.*

*This revised examination process will include consideration of the following; -*

- *Currently detailed examinations are undertaken on complex ancillary structures such as gantries and cantilevers that span operational railway lines. The developed ancillary asset policy (Rec 1) will consider appropriate types of examination and optimised intervals for all types of ancillary asset commensurate with the risk arising from failure*
- *Development of a programme of hidden critical element examinations for ancillary assets – see action plan to address Rec 2. The need for proposed HCE examinations to include intrusive investigation of the internal parts of hollow sections will be considered with cognisance to whether a competent / informed examiner as part of a suitable examination regime can evaluate the condition of the asset without internal investigation*
- *Re-designed examination forms will be an output of the Civils Strategy Asset Management System (CSAMS). These revised forms will include parts lists which enable exam reports to clearly define whether individual components of an asset have been adequately examined by positive nil return. Positive nil return has already been partially implemented through clauses within the CP5 examination framework contract. Pending implementation of CSAMS, current detailed and visual examination reports are being modified to include standard 'name of part lists'. These lists clarify the completed scope of the exam to the*

*evaluating engineer. In the report of an exam, individual asset 'parts' should be designated: -*

- i) Examined – i.e. relevant part is present on the particular asset and has been examined sufficiently.*
- ii) Not Examined – i.e. relevant part is present on the particular asset but has not been examined sufficiently. (Wingwall obscured by vegetation, baseplate obscured by ballast)*
- iii) Not Applicable – i.e. this part isn't present on this type of asset.*
- iv) Not Included – i.e. this part is present on the particular asset but wasn't expected to be examined within the scope of the exam (bearings on a 4 metre high bearing shelf during a visual exam – for example).*

*In addition to a revised examination process: -*

- The content of the current STE 1 competency framework, used to evaluate the competence of Network Rails asset engineers will be reviewed and revised as necessary to include the management of ancillary assets. The scope of competency standard CTM017 will be reviewed and revised to clarify the requirements for the examination of ancillary assets.*
- Required intervention with regards to maintaining surface treatments and coatings will be determined within the integrated ancillary asset policy developed within the action plan to address Rec 1.*

*Timescales: -*

*Development of Ancillary Asset Policy and implementation of enhanced ancillary asset examination regime – aligned to Recs 1 & 2, i.e. by 2 December 2016.*

*Successful implementation of CSAMS which facilitate the use of revised examination forms by 31<sup>st</sup> March 2017.*

10. On 10 March 2016 Network Rail provided the following further update:

*Network Rail can confirm that the revised examination arrangements implemented immediately post the Newbury incident has been instructed through the examination framework contract and reporting in line with its requirements has commenced. This is an initiative to ensure that the full requirements of a visual examination are captured during the Line of Route process, incorporating more robust measures to uncover obscured foundations and advocating reporting by positive nil return to better capture defects and recommendations aiding evaluation of current condition. This implemented initiative will significantly improve Network Rails examination regime for ancillary assets but will not fully address the intent of recommendation 3.*

*The current revised exam arrangements do not consider (and therefore revise) the existing requirements for the scope/ frequency of detailed examinations, the need and implementation of additional examinations (such as HCE), the use/ requirement of supplementary measures/technologies to inform the examination (remote condition monitoring) and the evaluation or the determination of suitable intervention based on an integrated asset management policy.*

Milestones to completion: -

- 1) *Establish Working Group (including Parent Asset Owners) – 1 April 2016*
- 2) *Identify NR Standards Requiring Revision – 10 June 2016*
- 3) *Produce Draft Policy for Stakeholder Consultation – 29 July 2016*
- 4) *Produce draft examination standards incorporating revised examination requirements – 28 October 2016.*
- 5) *Undertake Examination Framework Impact Assessment – 25 November 2016*
- 6) *Complete Examination Standards Stakeholder Consultation (including outside parties) – 30 December 2016*
- 7) *Publish Revised Examination Standards – 24 February 2017.*
- 8) *Issue Contractors Instruction for revision to CEFA Contract – 24 February 2017*
- 9) *NR Formal Closure of Newbury Rec 3 – 31 March 2017.*