

Oliver Stewart
RAIB Recommendation Handling Manager
T: 020 7282 3864
M: 07710069402
E-mail oliver.stewart@orr.gov.uk



6 October 2021

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

Dear Andrew,

RAIB Report: Partial collapse of a bridge onto open railway lines at Barrow upon Soar, Leicestershire on 1 August 2016

I write to provide an update¹ on the action taken in respect of recommendation 1 addressed to ORR in the above report, published on 6 June 2017.

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 '**Implemented**'.

We do not propose to take any further action in respect of the recommendation, 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 on 7 October 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

Proposed update to RAIB

Recommendation 1

The intent of this recommendation is that Network Rail's asset management teams have sufficient competence and information to manage the potential risk to its structures from breaches of water and other relevant utilities (eg gas).

Network Rail should:

- a. identify in its structures database those structures that carry water (and other) utilities so that this information is readily available to its asset engineers, structures examination contractors, and minor works contractors (paragraphs 124c 124d and 125);
- b. provide training and guidance to its asset engineers and structures examination contractors so that they are able to identify the presence of water (and other) utilities in structures, recognise defects caused by leaks, are aware of the consequences of a major utility failure, and decide on appropriate actions to be taken (paragraphs 124c and 125);
- c. introduce a requirement in its procedures to notify the relevant utility company about any emerging problems which might affect the integrity of a structure, to enable early remedial action and prevention of further deterioration (paragraphs 124c); and
- d. rebrief its asset engineers and structures examination contractors on the importance of recording evidence of underground utilities and any changes since the previous examination, as required by current Network Rail company standards

ORR decision

1. Network Rail have addressed the intent of the recommendation, but have not implemented the measures RAIB prescribe as the information provided by the utility companies is not considered to be suitably reliable. Network Rail are instead introducing guidance for asset engineers on how to identify structures that carry utilities.
2. We accept Network Rail's reasoning for not implementing part (a) of the recommendation as suitable alternative means have been put in place to manage the risk to structural stability associated with breaches of water and other utilities.
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
 - has taken action to implement it

Status: Implemented.

Previously reported to RAIB

4. On 15 April 2020 ORR provided the following initial response:

Network Rail have taken the risk associated with the recommendation into consideration, but are not implementing the measures prescribed in the recommendation. Instead they are planning to produce guidance for their asset engineers on how to identify structures that carry utilities, as they consider the information provided by the utility companies to not be suitably reliable.

We have asked Network Rail to justify this assertion and how the proposed alternative approach can achieve the required outcome. We have also suggested they consider the merits of combining both approaches. We have asked Network Rail to provide us with a copy of the guidance note when available and evidence it has been briefed out.

For part C of the recommendation, we will ask Network Rail for evidence they have a procedure for notifying utility companies about emerging problems with a particular asset and which standards are going to be updated. For part D, we will ask Network Rail for a copy of the rebriefing material and evidence it has been briefed out.

Update

5. On 9 January 2020 Network Rail provided the following closure statement:



Signed Closure
Statement.pdf

5. Network Rail state in summary the following:

The intent of the recommendation was to ensure Network Rail's asset management teams have sufficient competence and information to manage the potential risk to its structures from breaches of water and other relevant utilities.

Identifying in the structures database those structures that carry utilities so that this information is readily available would lead to an incomplete and inaccurate data set despite Network Rail's best efforts due to lack of provision of data or incoming data quality from utility companies. This could lead to incorrect assumptions about the presence, or lack of, statutory undertaker's plant over assets. Therefore we rejected this part of the recommendation.

Network Rail has in the guidance note produced to close this recs specified that asset engineers should undertake searches for utilities when evaluating an asset with a defect that could have manifested, or accelerate in rate of degradation, due to water. A similar requirement is already in place for the planning of minor works; however this will be made more explicit. A guidance note has been produced to

assist in asset evaluation (and is attached to this closure statement) so that asset engineers and structures examination contractors are able to identify the presence of water and other utilities in structures, recognise defects caused by leaks, are aware of the consequences of a major utility failure, and decide on appropriate actions to be taken.

Network Rail routinely notify emerging issues which might affect the integrity of a structure to the relevant utility, however this course of action has been made more explicit in the guidance note. Network Rail will brief the guidance note through 2 processes. The cascade process from Structures ATR (to be briefed at 5th Feb 2020 meeting) and through the Evaluation Working Group.

6. On 23 July 2021 Network Rail responded to some queries we had as follows:

The closure statement shows NR are not implementing the measures prescribed in the recommendation, but instead are planning to produce guidance for your asset engineers on how to identify structures that carry utilities, as the information provided by the utility companies is not considered to be suitably reliable. What is the justification for this assertion and how will it achieve the required outcome?

This is correct as stated in Network Rail's initial action plan and the closure statement. The creation and maintenance of a database for services across all assets would require an exceptional amount of effort to create and keep up to date with little perceived benefit as the information within would likely replicate that gathered from statutory utility searches.

We are also aware of the government pilot 'National Underground Asset Register'. The pilot was completed and next steps outlined on the government's website - <https://www.gov.uk/government/news/national-underground-asset-register-project-update>. Network Rail are a stakeholder for this work and have fed into the pilot.

Is there merit in combining the approach chosen together with what describe in the recommendation?

Using the approach outlined in the recommendation would either result in additional administrative resource burden on NR or could result in NR utilising data that is not up to date. Where utilities are identified on an asset they can be recorded in several places (CARRS, structure folders, Geo-RNIM, Etc.) but for the most up to date information AE(S) should follow the guidance note and utilise all resources available to them at the time of evaluation.

Can you provide us with a copy of the guidance note given to asset engineers when it is available and evidence it has been briefed out?

Guidance note is attached.



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The guidance note was briefed to the Structures Asset Technical Review on the 26th August 2020, and cascaded as per NR's structures briefing process. All the

Structures Guidance Notes are centrally located on the Structures Hub Site where all Structures Community members have access. In addition to the Structures ATR cascading, the community have been informed of the guidance notes and their location through our Structures & Tunnels Yammer Group. Hyperlinks to key websites and reference material are permanently pinned to the Yammer page for quick and convenient reference.

For Part C of the recommendation, can you provide evidence of a procedure for notifying utility companies about emerging problems with a particular asset and which standards are going to be updated?

Guidance on how to notify a utility company is included in the briefing note. NR/L2/CIV/032 shall be updated to account for the guidance as per the bow tie threat "Failure of services including gas, water & electricity mains". NR/L2/CIV/006/2A has already been updated to state that bridge examiners to record evidence of services below the road of overline bridges and any changes since the previous examination, (Clause 7.10c).

For Part D, can you provide a copy of the debriefing material and evidence it has been briefed out.

The guidance note was briefed to the Structures Asset Technical Review on the 26th August 2020, and cascaded as per NRs structures briefing process. As noted above, guidance notes are freely available to the Structures community and method of access has been communicated through our national Yammer group.

Previously reported to RAIB

Recommendation 1

The intent of this recommendation is that Network Rail's asset management teams have sufficient competence and information to manage the potential risk to its structures from breaches of water and other relevant utilities (eg gas).

Network Rail should:

- a. identify in its structures database those structures that carry water (and other) utilities so that this information is readily available to its asset engineers, structures examination contractors, and minor works contractors (paragraphs 124c 124d and 125);
- b. provide training and guidance to its asset engineers and structures examination contractors so that they are able to identify the presence of water (and other) utilities in structures, recognise defects caused by leaks, are aware of the consequences of a major utility failure, and decide on appropriate actions to be taken (paragraphs 124c and 125);
- c. introduce a requirement in its procedures to notify the relevant utility company about any emerging problems which might affect the integrity of a structure, to enable early remedial action and prevention of further deterioration (paragraphs 124c); and
- d. rebrief its asset engineers and structures examination contractors on the importance of recording evidence of underground utilities and any changes since the previous examination, as required by current Network Rail company standards

ORR decision

1. Network Rail have taken the risk associated with the recommendation into consideration, but are not implementing the measures prescribed in the recommendation. Instead they are planning to produce guidance for their asset engineers on how to identify structures that carry utilities, as they consider the information provided by the utility companies to not be suitably reliable.
2. We have asked Network Rail to justify this assertion and how the proposed alternative approach can achieve the required outcome. We have also suggested they consider the merits of combining both approaches. We have asked Network Rail to provide us with a copy of the guidance note when available and evidence it has been briefed out.
3. For part C of the recommendation, we will ask Network Rail for evidence they have a procedure for notifying utility companies about emerging problems with a particular asset and which standards are going to be updated. For part D, we will ask Network Rail for a copy of the rebriefing material and evidence it has been briefed out.

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
- are taking actions to address the risks associated with the recommendation, but potentially without meeting the explicit requirements of it.

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

Previously reported to RAIB

5. On 5 June 2018, ORR reported that Network Rail provided an initial response on 1 June 2018, but this did not give ORR time to carry out our usual governance procedures before the 12-month deadline for responding to RAIB by 5 June 2018.

Update

6. On 19 June 2018 Network Rail provided the following initial response:

The intent of the recommendation to ensure Network Rail's asset management teams have sufficient competence and information to manage the potential risk to its structures from breaches of water and other relevant utilities will be achieved by alternative means.

Identifying in the structures database those structures that carry utilities so that this information is readily available would lead to an incomplete and inaccurate data set despite Network Rail's best efforts due to lack of provision of data or incoming data quality from utility companies. This could lead to incorrect assumptions about the presence, or lack of, statutory undertaker's plant over assets. Network Rail therefore intends to specify that asset engineers should undertake searches for utilities when evaluating an asset with a defect that could have manifested, or accelerate in rate of degradation, due to water. A similar requirement is already in place for the planning of minor works; however this will be made more explicit.

A guidance note will be produced to assist in asset evaluation so that asset engineers and structures examination contractors are able to identify the presence of water and other utilities in structures, recognise defects caused by leaks, are aware of the consequences of a major utility failure, and decide on appropriate actions to be taken.

Network Rail routinely notify emerging issues which might affect the integrity of a structure to the relevant utility, however this requirement will be made more explicit in the standards update described above.

Network Rail will re-brief our asset engineers and structures examination contractors on the importance of recording evidence of underground utilities and any changes

since the previous examination, as part of the guidance note and briefing identified above.

7. Network Rail wrote to us on 9 January 2020 to confirm that the actions as set out had been completed.