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

Dear Andrew,

RAIB Report: Partial failure of a structure inside Balcombe Tunnel, West Sussex on 23 September 2011

I write to provide an update¹ on the action taken in respect of recommendation 9 addressed to ORR in the above report, published on 15 August 2013.

The annex to this letter provides details of the action taken regarding the recommendation. The status of recommendation 9 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 14 February 2020.

Yours sincerely,

Oliver Stewart

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

Recommendation 9

The intention of this recommendation is to improve the quality of information available to staff responsible for the management of structures including provision of information not required within the statutory Health and Safety File.

Network Rail should review, and if necessary improve, arrangements for recording, storing and retrieving data so that all relevant information is readily available to staff undertaking the examination, evaluation and maintenance of structures.

ORR decision

1. Although CSAMS has not yet been delivered. Network Rail have reviewed their arrangements for recording and storing data related to the maintenance of structures and put in place some improvements to existing systems, with further action planned.
2. The cumulative effect of the improvements is that the standard of information available to relevant staff is much improved over the situation in 2011 when the incident occurred, although we expect Network Rail to continue making improvements to these arrangements.
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. When we last reported on 15 December 2015 we advised that Network Rail were due to implement the recommendation by 24 February 2017:

Update

5. Network Rail submitted a closure statement on 5 November 2019 which included the following summary:

A meeting was held with Chris Davies of ORR on 7 October to review progress against this Recommendation. It was agreed the intent of the remit had been met.

In the absence of CSAMS being delivered, the other IT solutions were reviewed to consider how these improve arrangements for recording, storing and retrieving data. The attached documents demonstrate the timeline of their introduction and a plan for current and future improvements. The Structures Dashboard and Geo-RINM Viewer were highlighted as two key tools that combine existing data sets to allow for holistic

decision-making. This is further enhanced by the recent introduction of the evaluation dashboard that records engineer thinking at the key point of decision-making in safety risk management. ORR review of CSAMS and other interim solutions continues through quarterly liaison meetings and other forums.

Previously reported to RAIB

Recommendation 9

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ORR Decision

1. After reviewing information received 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 24 February 2017.

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

Brief summary of what was previously reported on 18 August 2014

2. ORR reported that Network Rail's action plan to implement this recommendation notes that the intent of this recommendation will be addressed by the successful roll out of the CSAMS system.

Update

3. On 23 April 2015 ORR wrote to Network Rail seeking confirmation noting a planned completion date of 30 June 2015, please provide an update on what has been achieved so far and any changes to plans bearing in mind the likely delay to the implementation of CSAMS.

4. On 18 May 2015 Network Rail provided the following update:

Close out of this recommendation is still linked to the implementation of the Civils Strategic Asset Management Solution (CSAMS). An extension of time request will therefore need be submitted in advance of the current planned completion date of 30 June 2015 to align closure of this recommendation with the latest delivery programme i.e. September 2016.

Interim measures identified in the action plan for this recommendation included the development of the structures dashboard, pending roll out of CSAMS. The structures dashboard has been developed and implemented to enhance the information available to structures managers. The Structures Dashboard is a . system designed to act as a portal to all current structures databases which

hold valid asset management information. These databases, include the current structures database, CARRS (Containing - Asset Headline Data, Examination Reports and Works Items), VeRA (Assessment Factors) Geogis (Line tonnage), HCE and Scour Databases (for evaluation of risk factors from hidden details and susceptibility to flooding or scour action), BCMI/TCMI (Bridge/Tunnel Condition Marking Index) and the Asset Exam Bridging Tool (Monitors compliance of the exam regime).

Network Rail has also developed modules which address the priority needs for CSAMS. These modules have been developed and implemented and are now business as usual.

They include: -

- Compliance Management System - This monitors compliance against delivery, review and approval of examinations and provides real time reporting of our and our suppliers' performance.*
- An interface with our suppliers own examination system to identify data disparity and inaccuracies between systems (The Asset Exam Bridge Tool).*
- Scour Database - This provides a database of all NR Assets prone to scour action and uses a standard methodology to provide hazard rating for these structures enabling management actions to be implemented systemically.*
- Hidden Critical Elements - provides a process for examining engineers to highlight asset components which cannot normally be examined and should be subject to specific additional examination.*
- In addition, NR has also undertaken extensive data cleansing to identify discrepancies, omissions and errors in our asset data to enable the CSAMS system to be populated accurately.*
- Ongoing work is being undertaken to refine the Bridge Condition Marking Index (liJCMI) and develop further condition indices for culverts, retaining walls and footbridges.*

Network Rail intends to consolidate the above working modules, the data cleansing exercise and the developed condition indices into CSAMS ready for its implementation in 2016.

At the last structures liaison meeting it was agreed that CSAMS progress updates would be provided directly by the Network Rail ORBIS team via the regular Asset Information liaison meeting, with ongoing ad hoc updates as necessary at the structures liaison meeting.

5. On 26 June Network Rail provided an update extending the timescale for completion to 24 February 2017.