

Oliver Stewart
Senior Executive, RAIB Relationship and
Recommendation Handling
Telephone 020 7282 3864
E-mail oliver.stewart@orr.gsi.gov.uk



20 April 2017

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, 23 September 2011

I write to provide an update¹ on the action taken in respect of recommendation 8 addressed to ORR in the above report, published on 15 August 2013. The annex to this letter provides details of the action taken regarding this recommendation, the status of which is now '**Implemented**'. We do not propose to take any further action in respect of this recommendation, unless we become aware that any of the information provided becomes inaccurate, in which case I will write to you again.

We will publish this response on the ORR website on 20 April 2017.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Oliver Stewart', is written over a horizontal line.

Oliver Stewart

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

Recommendation 8

The intention of this recommendation is to improve the effectiveness of Network Rail's examinations regime for structures within tunnels.

Network Rail should clarify arrangements, including its relationship with its contractors, for examining structures which are within tunnels, but are not fully encompassed by the normal tunnel management regime.

ORR decision

1. In relation to recommendation 8, Network Rail has carried out work to identify ancillary structures in tunnels that could pose a risk to the operational railway, should they fail. These findings, have informed improvements to their examination regime for tunnels by updating appropriate standards and a revised version of the tunnel condition marking reporting template (TCMI v16), which addresses recommendation 8.

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; and
- has taken action to implement it

Status: Implemented.

Previously reported to RAIB

3. When we last reported on 15 December 2015 we advised that Network Rail had provided the following update on 23 November 2015:

Network Rail remains on target to address this recommendation by 11 March 2016. Closure of this recommendation is dependent on roll out of version 16 of the Tunnel Condition Marking Index (TCMI) reporting template. The proposed TCMIv16 has been completed and is currently subject to the last scheduled field trials for final user acceptance and finalisation. Until field trials are concluded, and the need for any further revisions/ amendments ascertained, some risk remains in the programme. The March completion date includes some contingency to accommodate this, so currently Network Rail has no reason to believe the completion date is at risk at this time.

Update

4. Following timescale extensions, Network Rail provided a closure statement on 25 November 2016 containing the following information:

In meeting the intent of the above recommendation and to enable its formal closure, a revised Tunnel Condition Marking Index (TCMI v16) and accompanying standard revision has been implemented. The objective is to improve the quality of tunnel examinations with respect to fixings and structures within tunnels, clarifying their examination requirements and promoting the use of tunnel management strategies to inform the exam regime.

A new examination report template has been developed to cater for the requirement of improved and increased condition marking within tunnels (TCMI v16).

This template incorporates the facility to report upon three types of retrospectively fitted structures. The template includes the requirement of Positive Nil Return on both the existence of these structures, whether they have been examined as part of that examination and the condition of these structures.

The relative standard covering the reporting of tunnel condition using the TCMI v16 template has been updated in line with the roll out of TCMI v16 and details the above requirements' for reporting of these structures. The updated standard also includes definition of these classes of structure.

NR/L3/CIV/006/4C 7.17 Other feature (AS/ES/MS) pages

There are three types of 'other feature page available: subordinate structures (AS), equipment support structures (ES) and multiple simple fixings (MS). During each examination, examiners are required to confirm the presence of each type of feature within the Tunnel and examine them as appropriate.

Note that none of these features are TCMI marked but their design and condition should be recorded in free text boxes.

NR/L3/CIV/006/4C7.17.2 Subordinate structures

The subordinate structure (AS) page is used to record the details of substantial and bespoke Tunnel features, such as the water shields in Balcombe Tunnel. that are not included within any of the other report pages.