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16 October 2013

Ms Carolyn Griffiths
Chief Inspector of Rail Accidents
Rail Accident Investigation Branch
Block A, 2nd Floor
Dukes Court
Dukes Street
Woking GU21 5BH

Dear Carolyn,

**Fatality at Johnson's footpath crossing near Bishop's Stortford, Hertfordshire,
on 28 January 2012**

I write to give an update report¹ on the consideration given and action taken in respect of the recommendation 1 addressed to ORR in the above report, published on 13 December 2012.

The annex to this letter provides details of action being taken by Network Rail.

We expect to update you on progress by 31 March 2014 and to publish this response on the ORR website on 30 October 2013.

Yours Sincerely

Chris
O'Doherty



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

Recommendation 1

The intent of this recommendation is to identify reasonably practicable ways of improving the conspicuity of miniature stop light indications at pedestrian crossings, in order to reduce the potential for a level crossing user to be unaware of a red light.

This is increasingly important where pedestrians may be distracted by personal music devices and smartphones.

Network Rail should investigate ways to make cost-effective improvements to the conspicuity of visual warnings of approaching trains, taking account of the findings of relevant RSSB research projects.

Such improvements might include moving existing miniature stop light indications to the near side of the railway, or the provision of 'back-to-back' or 'side-to-back' indications.

The results of this investigation should be used to determine the optimum configurations for new installations, as well as the situations in which it would be reasonably practicable to enhance existing installations.

If appropriate, Network Rail should then arrange for the Level Crossing Risk Management Toolkit to be updated accordingly.

Brief Summary on what was previously reported to RAIB on 31 May 2013

1. Network Rail in its response on 20 February 2013 advised that:

The National Level Crossing Team is currently in the preparatory phase of trialling a back-to-back Miniature Stop Light (MSL) system at Farnborough.

Civil work will be completed by the end of February 2013 followed by installation of the new back-to-back MSLs. The output of the trial will be analysed and the benefits will be considered.

The results of the trials will be considered in conjunction with on-going human factors research. The results will inform guidance on future installations, specifically optimum configuration.

Depending on the conclusions of the trial, suitable sites will be identified and considered for implementation. The investigation results will be incorporated into an update to the Level Crossing Toolkit in 2014.

Supplementary document – 'Suggested works at Farnborough North'.

Timescale: 31 March 2014

Update

2. On 12 September 2013 Network Rail provided ORR with a Progress update:

Back-to-back lights are to be installed at Farnborough North level crossing in July 2013 and at Rushton No.2 level crossing in August 2013.

To understand how 'back-to-back lights' actually affect user behaviour at the crossing video footage at the crossing will be collected, along with 'before and after' data whereby users would be interviewed and observed (on site observations and video data). The data collected would then be analysed.

The approach is that data will be collected:

- *Over a 7-day period prior to back-to-back lights being commissioned – to provide baseline data against which can be compared later footage*
- *Over a 7-day period immediately post commission of the lights – to assess immediate impact of the new lights*
- *Over a 7 day period 3 months after lights have been commissioned – to understand whether the lights are having a sustained impact on behaviour in the short term*
- *Over a 7 day period 6 months after lights have been commissioned – to understand whether the lights are having a sustained impact on behaviour in the medium to longer term.*

It is hoped that the introduction of back-to-back lights will reduce risk to users of the crossing by:

- *Providing redundancy*
- *Increasing information provision - user can check the status of the crossing when they are traversing*
- *Improving situational awareness and accuracy of decision to cross*
- *Reducing likelihood that users will fail to recognise the crossing or the decision point*
- *Reducing likelihood that users will fail to read crossing instructions*
- *Reducing likelihood that users will be unaware of an approaching train*

A written report at the end of the trial would summarise the approach and findings, including consideration of the benefits of implementing 'back-to-back lights' more widely on the network.

Timescale: January 2014

3. On 30 September 2013 Network Rail provided a further update on progress to install Back-to-back lights at Farnborough North level crossing and at Rushton No.2 level crossing:

Farnborough North: Works now complete: Back to back lights installed; civil works complete on platform approaches; signs removed to bare minimum; audible warning levels tested and suitable level applied.

Rushton No2: The work has not yet started but the current plan is for the work to be undertaken in the first week of December [2013].

ORR Decision

4. After reviewing all the information received from Network Rail, ORR 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.

Status: In-progress. ORR will update RAIB by 31 March 2014.