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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: Fatal accident at Grimston Lane footpath crossing, Suffolk, 23 February 2016**

I write to report<sup>1</sup> on the consideration given and action taken in respect of the two recommendations addressed to ORR in the above report, published on 21 November 2016.

The annex to this letter provides details in respect of each recommendation. The status both recommendations 1 and 2 is '**implementation on-going**'.

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 on 23 November 2017.

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

## Initial consideration by ORR

1. Both recommendations were addressed to ORR when the report was published on 21 November 2016.
2. After considering the recommendations, ORR passed both recommendations to Network Rail asking them to consider and where appropriate act upon them and advise ORR of their conclusions. The consideration given to each recommendation is included below.
3. ORR also brought both recommendations to the attention of the Heritage Railway Association and tram operators as it was concluded that that there are equally important lessons for them. ORR did not ask these organisations to provide a reply.
4. This annex identifies the correspondence with Network Rail on which ORR's decision has been based.

## Recommendation 1

*The intent of this recommendation is that the effect of skewed alignment on the safe use of passive crossings is fully understood and managed.*

Network Rail should:

- i. identify the effects of skewed alignment at passive level crossings on user behaviour, including the sighting of approaching trains;
- ii. review its processes and guidance for level crossing risk management, including the 'all level crossings risk management' tool (ALCRM), to determine whether the impact of skewed alignment is sufficiently taken into account; and
- iii. make any necessary changes to its processes and the guidance and training given to its level crossing managers.

## ORR decision

5. We are content with the Network Rail response and accept their rationale for using a qualitative approach to assess the risks arising from skew crossings, rather than making adjustments to ALCRM algorithms.
6. 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 December 2017

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

## Information in support of ORR decision

7. On 2 October 2017 Network Rail provided the following initial response:

*To address this recommendation, Network Rail will focus on the qualitative implications of skewed alignment vice complex quantitative risk modelling calculation changes. The central level crossing team will generate a special topic guidance paper for dissemination to the Level Crossing Manager community which considers the following areas:*

- *How a skewed crossing could influence the way in which a user interacts with the asset when determining if it is safe to cross*
- *How a skewed alignment may restrict user mobility in looking for approaching trains*
- *How the skew, in addition to increasing the exposure window, could direct users toward an approaching train; i.e. the angle of the crossing surface is such that a user is closer to moving trains on the 'far side' than at the start of their traverse*
- *If the skew cannot be corrected, or as an interim measure, what good practice controls can be implemented to reduce risk and improve safety*

*In producing the guidance paper the central level crossing team will seek the advice and counsel of the Network Rail ergonomics team.*

*The approach to address the recommendation through improved risk management capability is preferred to risk model calculation changes. Risk model changes, which are likely to prove complex and costly to administer, will yield only minor changes in calculated risk which are unlikely to have the same effect in delivering real term practical improvements in process.*

*Improved qualitative assessment best meets the intent of the recommendation. It will help to cement greater understanding and also promote enhanced heightened awareness amongst assessors. This will improve risk assessment process and support risk control selection / safety based decision making*

## Recommendation 2

*Recognising Network Rail's commitment in its 'Transforming Level Crossings' document, to equip all existing passive crossings with automatic warnings by 2039, the intent of this recommendation is that the risk to vulnerable users at passive level crossings is reduced in an expedient manner during the interim.*

Network Rail should:

- i. review its criteria for determining when it is appropriate to include an allowance for vulnerable users when calculating the required warning time at level crossings that are used by pedestrians; this review should take into account forecast demographic changes, in particular the ageing population;
- ii. review the allowances made for vulnerable users to take into account good practice and research; and
- iii. use the above to review levels of risk at existing passive level crossings to inform decisions to prioritise the crossings that are to be upgraded with the addition of automatic warning systems, or otherwise improved.

### **ORR decision**

8. We are content with the approach Network Rail is taking to address the recommendation and the timescales proposed.

9. 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 28 February 2018

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

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

10. On 2 October 2017 Network Rail provided the following initial response:

*A two-phased approach is necessary to deliver this recommendation; review and implementation the latter phase/bullet point 3 above, subject to the review findings and agreed business strategy.*

*Network Rail will further evaluate the current approach to its application of vulnerable user criteria when calculating the required warning time at footpath, bridleway and private user worked crossings used by pedestrians. In doing so the central level crossing team will review existing research and internally held intelligence. The review will centre on the current application of enhanced traverse time for persons with physical, mental or impaired mobility. It will also look to good practice measures which may reduce risk and improve safety. The review will also take account of imported risks which could be incurred through process changes. This includes risk transfer on the network and performance and train running sustainability.*

*Evaluation will be led centrally with the support of the vulnerable user peer review group. The group, represented by members of the central level crossing team, Route Level Crossing Managers, Level Crossing Managers and legal services, met earlier this year to channel further improvements to guidance*

*material. Progress has already been achieved in defining user vulnerabilities to assist identification of vulnerable users and direct risk management activity accordingly. Additional expertise in data analysis will be sought to aid the group.*

*A paper which will outline the findings of this review, propose options and detail any adverse impact from changes in protocol will be prepared and presented to the industry's Level Crossing Strategy Group (LCSG). The group will help to direct the formal approach and any subsequent business change. RAIB and ORR are both represented at LCSG meetings.*

*Implementation/bullet point 3 of the recommendation will require additional time determined by the output of the work.*