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14 June 2019



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

Dear Andrew,

RAIB Report: Collision at Stainforth Road level crossing, 11 January 2018

I write to report¹ on the consideration given and action taken in respect of the two recommendations addressed to ORR in the above report, published on 19 July 2018.

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

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 17 June 2019.

Yours sincerely,

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

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

Oliver Stewart

Initial consideration by ORR

1. Both recommendations were addressed to ORR when the report was published on 19 July 2018.
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 its conclusions. The consideration given to each recommendation is included below.
3. ORR also brought recommendation 1 to the attention of the HRA as it was concluded that there are equally important lessons for its member organisations. ORR did not ask the HRA or its members to formally respond.
4. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

The intention of this recommendation is to ensure that the risk of existing level crossings being open to road users during the passage of trains is recognised and actively managed on Network Rail managed infrastructure.

Network Rail should: I review the responses provided to Special Inspection Notice 180 in order to identify those locations where it is possible for a level crossing to be open to road users while it is occupied by a train; I review the risks associated with such scenarios at the identified locations and identify suitable risk mitigation measures to address them; and I draw up a time-bound plan to improve the crossings as appropriate, with those presenting the higher risk improved ahead of those presenting the lower risk

ORR decision

5. We are content with the actions and timescales Network Rail have identified to address this recommendation. Once the responses to SIN 180 have been collated, we have asked Network Rail to provide us with a list of level crossings that have been identified for improvements, the work to be done and the expected timescale for completion.
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 October 2019.

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

Information in support of ORR decision

7. On 10 January 2019, Network Rail provided the following initial response:

Network Rail has created the Special Instruction Notice 180 in order to identify the sites where the infrastructure configuration that allows the level crossing protection to be withdrawn with a train wholly or partly on the level crossing. The action detailed in SIN 180 are required to be complete by 31-3-2019.

The information gathered by SIN 180 is considered to address bullet point 1 above, and enables the assessment of risk at those sites.

Actions are:-

1. A structured risk assessment of the causal factors will be undertaken eg the likelihood of an approaching LC user being unable to see and stop if a train is occupying the level crossing (categorisation of approach speeds of users), and the likelihood of a train stopping in a position to cause a conflict and the level crossing protection (vicinity of limits of movement authority, normal stopping points (stations etc). The initial output of this risk assessment is a categorised list of sites with insignificant risk and sites where risk mitigations may be considered.

2. A review of proposed infrastructure renewal programs will be used to inform the duration of any risks identified until configuration mitigations are planned by asset renewal.

3. Identify risk mitigations where these can be justified eg for significant residual risks with long renewal timescales, interim measures will be considered by cost benefit analysis against the level of risk to be mitigated.

4. Creation of implementation plan for any risk reduction measures identified, both planned asset renewal and interim measures.

It is planned that items 3 and 4 are subject of a further Special Inspection Notice.

Timesacle: 30 April 2019

8. On 9 May 2019, Network Rail notified us that the deadline for completion had been extended to 31 October 2019 as analysis of proposed remedial actions and the residual risk is a more significant task than originally expected.

Recommendation 2

The intention of this recommendation is to prevent new designs of automatic level crossings which cross public roads, that are remotely monitored by the signaller and which are intended for use on Network Rail managed infrastructure, from being open to road users during the passage of trains.

Network Rail should revise its level crossing design standards so that they do not permit new designs of remotely monitored level crossing to undergo a timed reset unless all strike-in track circuits are clear and the train has been proved to have

passed completely over the level crossing by suitable means. This may be undertaken as part of its current review of level crossing design standards and their underlying protection principles.

ORR decision

9. The panel that reviewed the Network Rail response to the Stainforth recommendations were not content with the rejection of recommendation 2. It was felt Network Rail had not properly addressed the recommendation and undertaken a review of standard NR/L2/SIG/11201 module X_ _ in order to identify any inconsistencies between the modules.

10. At a subsequent meeting, it was agreed for ORR and Network Rail would carry out their own separate reviews of the standard and agree a position on any inconsistencies identified.

11. 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, but has not yet agreed with ORR a plan for full implementation

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

Information in support of ORR decision

12. On 1 February 2019, Network Rail provided the following initial response:

Network Rail reject this recommendation

Network Rail has undertaken a review of level crossing standards and has concluded that no amendments to the standards are required.

Specifically, NR/L2/SIG/11201 module X02 (both issue 1, Sep 2011 and issue 2, Dec 12) has requirement that:-

- *The operating sequence shall not be cancelled until trains in either direction have fully cleared the crossing, but if there is a risk of false operation of the island track circuit, (perhaps by a tracked vehicle using the crossing), if no other train is approaching it shall not operate the crossing.*
- *In all cases where the crossing is bi-directional, a short "island" track section shall be provided across the level crossing.*

Application of these requirements mitigate the circumstances of the incident at Stainforth.