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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: Collision between a train and tractor at Hockham Road user worked crossing, near Thetford on 10 April 2016

I write to provide an update¹ on the action taken in respect of recommendation 1 addressed to ORR in the above report, published on 14 March 2017.

The annex to this letter provides details of actions taken in response to the recommendation and the status decided by ORR. The status of recommendation 1 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 7 August 2020.

Yours sincerely,



Oliver Stewart

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

Recommendation 1

Recognising Networks Rail's stated intention to reduce its reliance on telephone protection at user worked crossings (paragraph 136), the intent of this recommendation is to reduce the risk of signaller error at user worked crossings.

Network Rail should undertake a review of its measures for the protection of user worked crossings with the objective of identifying means of reducing the likelihood that an accident will be caused by signaller error. Options for consideration should include:

- improved information for signallers (including consideration of ways of better enabling signallers to judge the time needed for a movement over a crossing and the time available before a train arrives at a level crossing);
- increased use of automatic warning systems; and
- closure of UWCs or their replacement by automatic crossings.

The review should also identify criteria for the prioritisation of improvements taking into account both risk and the opportunities presented by planned signalling upgrades. The findings of the review should be incorporated into Network Rail's level crossing strategy and the standards used to prepare specifications for new signalling schemes.

ORR decision

1. ORR considers this recommendation to have been implemented through Network Rail's level crossing strategy², which commits Network Rail to rolling out technology that provides active warnings to users at more level crossings.
2. UWC-Ts in long signal sections and high workload, along with UWCs relying on sighting alone that are assessed as high-risk, are specifically highlighted in the strategy as being prioritised.
3. Network Rail has also introduced the concept of 'Signaller's Decision Points' and a three minute rule, which is also part of the closure statement for Dock Lane recommendation 1. This sets out a process for signallers making a decision on if permission should be granted for a user to cross. For Hockham, this addresses the first bullet point of the recommendation.
4. 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.

² <https://www.networkrail.co.uk/wp-content/uploads/2020/03/Enhancing-Level-Crossing-Safety-2019-2029.pdf>, pp. 24-5.

Previously reported to RAIB

5. On 13 March 2018 ORR reported that the Network Rail response only considers the option of providing improved information for signallers. ORR asked Network Rail to address all the options identified in the recommendation and provide us with information on any measures being taken to make increased use of automatic warning systems and closure or replacement of UWCs.

Update

6. On 27 February 2019 provided the following closure statement:



Hockham Road 1
closure statement 2019

7. Network Rail state in summary the following:

Network Rail evaluated the investigations for Hockham Road [both internal & RAIB] and RAIB Dock Lane Investigation and took the decision to adopt an effective joint action plan to address those with overlapping criteria. Accordingly, the plan targeted the closure of internal investigation recommendation Hockham Road A9.6 and RAIB recommendations Hockham Road Rec 1 and Dock Lane Rec 1. Please note that this paper is a summary addendum to the Dock Lane Rec.1 Closure Statement - for full details please refer to that paper.

Focussing on the intent of the recommendation specific to Signaller error Network Rail held a Hazard Identification (HAZID) workshop on 16/05/2018, with key stakeholders from Anglia Route. The workshop utilized the experience of the stakeholders present to evaluate options to improve Signallers ability to judge whether sufficient time exists to authorise the use of crossings and thus reduce risk/likelihood of error.

The options included:

- *Signaller's Decision Points - identification of track circuits or signals which represent the limits when permission can or will not be given - taken forward.*
- *A Three-minute rule (A mandated minimum time to have before giving a user permission to traverse) - taken forward.*
- *Not enough time to cross indication on the panel / workstation VDU - not progressed.*
- *Additional axle counter sections – where practicable for new signalling schemes;*
- *Signallers User Worked Crossing App - under development.*

The output of the HAZID workshop supported that Signaller's Decision Points, including the three minute minimum rule per traverse were the most appropriate options to take forward to improve safety. This decision was supported by the fact that it could be done relatively quickly. The trial was commissioned for use of the 'Signaller's Decision Points' and 3-minute rule with a number of critical success factors that were met. The probability of signallers making errors and the number of crossing decisions that signallers are required to make has been reduced by the

trial introduction of 'Signaller's Decision Points', detailed evidence is provided in the Dock Lane Closure Statement.

As the result of the trial a new National Operations Procedure mandating the use of the methodology for identifying 'Signaller's Decision Points' in addition to the use of the 3-minute rule has been implemented across the business. Route businesses will now retrospectively apply this process to UWC equipped with telephones to improve signallers' ability to determine whether it is safe to grant permission to cross. Full details are contained within the closure statement for Dock Lane 1.

With regard to bullet points 2 & 3 of the RAIB recommendation, Network Rail has a long-term strategic objective to introduce more automatic warning systems across the level crossing. User Worked crossings form part of Route business CP6 risk reduction plans. These risk reduction plans are prioritized based on safety risk and aligns with Network Rail's Level Crossing Safety.

Previously reported to RAIB

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The review should also identify criteria for the prioritisation of improvements taking into account both risk and the opportunities presented by planned signalling upgrades. The findings of the review should be incorporated into Network Rail's level crossing strategy and the standards used to prepare specifications for new signalling schemes.

ORR decision

1. The Network Rail response only considers the option of providing improved information for signallers. ORR has asked Network Rail to address all the options identified in the recommendation and provide us with information on any measures being taken to make increased use of automatic warning systems and closure or replacement of UWCs.

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
- but has not provided a sufficient response setting out how each part of the recommendation will be delivered.

Status: Insufficient response. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation. Information in support of ORR decision

3. Network Rail provided the following initial response on 30 January 2018:

Network Rail has evaluated its internal formal investigations for Hockham Road and Dock Lane in conjunction with those of recommendations from RAIB and has taken the decision to adopt an effective joint action plan to address those with overlapping criteria. Accordingly, the plan below will target the closure of RAIB recommendations Hockham Road Rec 1 and Dock Lane Rec 1 and the internal investigation recommendation, Hockham Road A9.6.

The action plan is as follows:

1. The review criteria for the recommendation will include:

a. Investigate, develop and propose, potential solution(s);

i. decision making processes, linked to;

ii. how many calls a signaller takes;

iii. error rates proportionate to risk;

iv. Signallers ability to monitor train location (i.e. long signal sections)

v. potential internal and external factors that lead to errors.

b. Liaise and consult with appropriate stakeholders from RSSB, NR Ergonomics, Level Crossing Team, Route Businesses, Head of Operations Principles and Standards, Operations Delivery Manager(s) / HoRSHE'(s) / Operations Manager(s) / Signaller(s) effected / Trade Union Health and Safety Representative(s);

2. Evaluate the proposal(s) and the need to trial them with stakeholders or go live as appropriate.

a. Develop one solution that is appropriate that conforms to ALARP;

b. Develop a risk based criteria with appropriate measures of success;

c. Trial or go live as agreed;

d. Monitor and review the solution.

3. A report making reference to the findings and evidence will be produced to close out the recommendation. This will include as appropriate recommendations for change to the Rule Book industry and Network Rail standards or other actions as appropriate.

Note: After each stage an update will be provided. Any changes to the actions or review criteria will be noted with the reasons for this.

Timescales:

1. The development of proposals (from step i above) will be completed by the end of April 2018;

2. Evaluate the proposal(s), agree one to take forward and the need to trial or go live with stakeholders by the end of June 2018;

3. All actions and close out report to be completed by the end of October 2018.

4. If further action is required then an extension to complete will be submitted