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8 October 2018



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 a tractor at Oakwood Farm User Worked Crossing, Knaresborough, 14 May 2015

I write to provide an update¹ on the action taken in respect of recommendation 1 addressed to ORR in the above report, published on 28 April 2016.

The annex to this letter provides details of the action taken regarding the recommendation, the status of which is now '**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 becomes inaccurate, in which case I will write to you again.

We will publish this response on the ORR website on 9 October 2018.

Yours sincerely,

Oliver Stewart

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 reduce the risk to users of Oakwood Farm UWC.

Network Rail should:

- a) undertake a comprehensive review of the safety of the crossing at Oakwood Farm UWC in the light of the findings in this report, its own hazard reviews, human factors advice, and suggestions from the authorised user, in order to minimise the risk to users; and
- b) implement any improvements identified in part a) above at Oakwood Farm UWC in liaison with the authorised user.

ORR decision

- 1. Network Rail has carried out a detailed risk review of Oakwood Farm UWC, including liaison with the authorised user. A programme of improvements was put together following the review and have now been completed.
- 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
 - taken action to implement it

Status: Implemented.

Previously reported to RAIB

3. On 27 April 2017 ORR reported the following:

"Following the publication of the RAIB report, Network Rail's LNE & EM Route agreed an action plan with the ORR, communicated on 20 May 2016. An initial review of the level crossing was undertaken which included reviewing the outputs from the HAZID undertaken as part of the Product Acceptance for POGO; a site visit where the existing signage and equipment on the approach to the level crossing was reviewed, with a view to simplifying the approach by removing redundant equipment and superfluous signage; and a review of the operation of the 'closure buttons'. The latter two actions included a review of the associated human factors.

A more comprehensive review was planned including a full independent risk review (by Mott MacDonald) of the level crossing as a system, working with the Authorised User to ensure that their opinions are included in the outputs.

would be larger and brighter than the existing MSL lights. An action plan would be produced following completion of the independent risk assessment.

A provisional date for closure of the actions relating to Oakwood was set as March 2017. We understand this has overrun but that Network Rail planned to install a larger MSL by the end of April and that the national POGO Hazid has been finalised allowing them to start to use the information within it to look at inhibiting operation of the gates etc. We await written confirmation of this position from them."

Update

4. On 9 January 2018 Network Rail provided closure statement including the following summary:

Following the publication of the RAIB report into the incident at Oakwood Farm Level Crossing the LNE & EM Route agreed an action plan with the ORR, which was communicated to them by the DRAM on the 20 May 2016. An initial review of the level crossing was undertaken, which included:

- 18 May 2016 A review of the outputs from the HAZID undertaken as part of the Product Acceptance for POGO.
- 15 June 2016 A site visit was undertaken where the existing signage and equipment on the approach to the level crossing was reviewed, with a view to simplifying the approach by removing redundant equipment and superfluous signage. In addition to this a review of the operation of the 'closure buttons' was also undertaken. Both these included a review of the human factors.

These actions informed the full independent risk review of the level crossing as a system. Start-up meeting was held on 29 June 2016, and completed on 6 April 2017. The output from the independent risk assessment included:

- 1. Increase the size of the RTL lights implemented
- 2. Provide duplicate RTL lights on the opposite side of the crossing not implemented as we have replaced the existing lighting units with larger aperture lights improving visibility on the approach, the improved visibility has been confirmed by the RLCM and a signal sighting engineer (who we used help agree the best alignment) and also by the Authorised user.
- 3. Provision of the universal User Worked Crossing sign signage is not in use in the UK and could cause confusion
- 4. New Detailed Instruction Sign implemented
- 5. Red and White Markings on the gates implemented
- 6. Red target on the gates not implemented as the red target has a specific meaning in railway signalling, which is for gates that swing across the railway. These gates do not swing across the railway. However; we have taken

measure to improve the visibility of the gate a night by applying retroreflective tape to gate, which meets the requirement of this recommendation.

- 7. Yellow box markings implemented
- 8. Provision of a STOP line and STOP sign implemented
- 9. Provision of Stop here to close the gates signage implemented
- 10. A crossing failed sign The LCM has temporary signage located at the level crossing that is implemented when the crossing fails. This local signage informs the user that the gate is now in manual mode and should be operated accordingly.
- 11. Yellow paint at the strike-in point for train drivers implemented

Network Rail worked closely with the Authorised User to ensure that their opinions were included in the outputs, including site meetings with the independent reviewers and meetings with the RAM(S) on 18th April 2017 and 12th June 2017, to discuss both the works undertaken and future plans for all level crossings on Authorised Users property.

Network Rail investigated the provision of secondary MSL lights but chose not to take this option forward as new larger MSL lights were installed on 23 April 2017. These are higher, brighter and larger than the existing lights to assist tractor and HGV drivers. The new lights were reviewed by the Authorised user on the 3 May 2017 who confirmed they were an improvement.

Network Rail has implemented the actions required to improve the crossing, those of which not taken forward were dismissed as part of the HAZID for POGO. Photographs provided as supporting evidence to show the improvements made.



Previously reported to RAIB

Recommendation 1

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- b) implement any improvements identified in part a) above at Oakwood Farm UWC in liaison with the authorised user.

ORR decision

- 1. Following the publication of the RAIB report, Network Rail's LNE & EM Route agreed an action plan with the ORR, communicated on 20 May 2016. An initial review of the level crossing was undertaken which included reviewing the outputs from the HAZID undertaken as part of the Product Acceptance for POGO; a site visit where the existing signage and equipment on the approach to the level crossing was reviewed, with a view to simplifying the approach by removing redundant equipment and superfluous signage; and a review of the operation of the 'closure buttons'. The latter two actions included a review of the associated human factors.
- 2. A more comprehensive review was planned including a full independent risk review (by Mott MacDonald) of the level crossing as a system, working with the Authorised User to ensure that their opinions are included in the outputs.
- 3. Network Rail intended to investigate the provision of secondary MSL lights, placed higher than the existing lights, to assist tractor / HGV drivers, which would be larger and brighter than the existing MSL lights. An action plan would be produced following completion of the independent risk assessment.
- 4. A provisional date for closure of the actions relating to Oakwood was set as March 2017. We understand this has overrun but that Network Rail planned to install a larger MSL by the end of April and that the national POGO Hazid has been finalised allowing them to start to use the information within it to look at inhibiting operation of the gates etc. We await written confirmation of this position from them.
- 5. 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 ORR has yet to be provided with a timebound plan.

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

- 6. On 30 August 2016 Network Rail provided the following initial response:

 Following the publication of the RAIB report into the incident at Oakwood Farm
 Level Crossing the LNE & EM Route have agreed an action plan with the ORR,
 this was communicated to them by the DRAM on the 20 May 2016.
 - a) We have undertaken an initial review of the level crossing which has included:
 - 18 May 2016 A review the outputs from the HAZID undertaken as part of the Product Acceptance for POGO
 - 15 June 2016 A site visit was undertaken where the existing signage and equipment on the approach to the level crossing was reviewed, with a view to simplifying the approach by removing redundant equipment and superfluous signage. In additional to this a review the operation of the 'closure buttons' was also undertaken. Both these included a review of the human factors.

These actions will inform the comprehensive review as follows:

- Undertake a full independent risk review of the level crossing as a system. Start-up meeting held on 29 June 2016.
- We will be working closely with the Authorised User to ensure that their opinions are included in the outputs.
- Additionally, Network Rail will investigate the provision of secondary MSL lights, placed higher than the existing lights, to assist tractor / HGV drivers, which will be larger and brighter than the existing MSL lights.
- b) Following completion of the independent risk assessment we will review the recommendations and produce an action plan for those taken forward.

A provisional date for closure of the actions relating to Oakwood is March 2017; however this is subject to change depending on the outputs of the various reviews.