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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 at Frogna Farm User Worked Crossing on 23 October 2017

I write to report¹ on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 23 August 2018.

The annex to this letter provides details in respect of the recommendations. The status of recommendations 1, 3 & 4 is '**Progressing**'. Recommendation 2 was addressed directly by RAIB to DfT.

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 14 August 2019.

Yours sincerely,

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

A handwritten signature in black ink, appearing to read 'Oliver Stewart', written in a cursive style.

Oliver Stewart

Initial consideration by ORR

1. All 4 recommendations were addressed to ORR when the report was published on 23 August 2018.
2. After considering the recommendations ORR passed recommendations 1, 3 and 4 were passed 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. Rec 2 was passed to DfT
4. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

The intent of this recommendation is to enable crossing users who may be unfamiliar with user worked crossings to safely operate and traverse such crossings, in view of the increasing number of reasons that people may need to use user worked crossings without necessarily having been briefed on their use.

Network Rail, with Office of Rail and Road and Department for Transport support, should review and revise the information offered to users of private level crossings, including consideration of signage wording and diagrams, the conspicuity and placement of signage, and the actions that the user needs to take, including operation of the gates or barriers, and communication with the signaller. The review should also consider, alongside the presentation of information, practicality and feasibility of the current arrangements by which authorised users are expected to brief and inform other potential users of the crossing, in view of the increased dependence of occupiers on delivered goods and services from a plethora of sources, and other factors which may increase the number of crossing users (paragraphs 129a.i, 129a.iii, 129a.iv).

ORR decision

5. We have asked Network Rail to share with us the review which was used to develop the action plan for recommendation 1. We want to understand the consideration given to the practicality and feasibility of the current arrangements by which authorised users are expected to brief and inform other potential users of a crossing.
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, but ORR has yet to be provided with a clear justification for taking the measures identified.

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

7. On 9 January 2019 Network Rail provided the following initial response:

Network Rail accepts this recommendation and will address the intent through the delivery of two distinct workstreams.

The first of these targets level crossing signage and improving user instructions on safe crossing protocol. Network Rail is already working collaboratively with ORR and DfT colleagues to develop and deliver new signs at private level crossings. These signs build on the ergonomic studies delivered by RSSB research paper T983, Signs at private road level crossings, and feature new pictograms and instructional language to enhance the clarity of instruction for each user group.

The new signs require ergonomic trials, DfT approvals and standards change protocols to be effectively delivered before they are available for progressive rollout across the estate. Taking account of these deliverables, which incorporates enhancements to standards and guidance relating to the placement and conspicuity of signs, it is expected that new signage and associated guidance will be available from September 2019.

Once this recommendation is completed, the new signs are available, they will be progressively changed, ultimately to meet revised legislation – The Private Crossings (Signs and Barriers) Regulations 1996.

These new signs will deliver the intent of this recommendation in relation to improved safety information at site, specifically enhancing user comprehension by those who are less familiar with crossing operation.

The second of these two workstreams will focus on improving and standardising authorised user briefing material relating to safe crossing protocol. New briefing material will encompass:

- *Safe use and operation of respective UWC, UWCT and UWCMSL assets, including communications with Signallers and compliance with level crossing equipment;*
- *Legal obligations of authorised users to cascade safe crossing protocol to invitees;*
- *Responsibilities of invitees to adhere to safe crossing protocols; and*
- *Other pertinent information such as good practice pointers on cascading of information, for example incorporation within delivery instructions when ordering goods or services online.*

Enhanced authorised user briefing material is targeted for delivery on or before 31/08/2019.

Recommendation 2

The intent of this recommendation is to bring the law covering signs at private level crossings up to date and into line with good practice, to effectively convey the safe method of traversing the crossing to the user.

This recommendation strengthens recommendation 8 of the RAIB's class investigation into safety at user worked level crossings, which was made in June 2009 and has not yet been implemented. As part of its support for the work identified in recommendation 1, the Department for Transport, in consultation with the Office of Rail and Road, should change the requirements for signs prescribed by law for use at private crossings, taking into account the need to convey information and instructions clearly and unambiguously to diverse users (paragraph 131a)

ORR decision

8. The recommendation was directly addressed by RAIB to DfT. ORR is working closely with DfT and Network Rail on a project to update the Private Crossings Signs and Barriers Regulations 1996. New and updated signs for user worked crossings have been developed and work is progressing with a view to a public consultation on new regulations by the end of the year. It is hoped that new regulations will be introduced by the end of April 2020.

Status: N/A

Recommendation 3

The intent of this recommendation is to improve the understanding that users of private level crossings equipped with power operated gates have of the process for using such crossings safely, so that the risks created by automating part of a user worked crossing are appropriately mitigated. This recommendation repeats recommendation 2 of the RAIB's report on the accident at Oakwood Farm level crossing on 14 May 2015 because there is evidence that the original recommendation was not being implemented as intended.

Network Rail should develop and implement a programme for a timely review of the safety of other user worked crossings it has fitted with POGO equipment and those it intends to fit in the future. The review should be based on a proper understanding of the risks associated with POGO equipment and include particular consideration of the following:

- a) the types of location where the installation of POGO equipment is likely to be unsuitable;
- b) the design standard for crossings fitted with POGO equipment;

- c) the ways in which users in different types of vehicles operate the crossing gates, including the function of the gate operating buttons;
- d) the clarity of instructions to enable unfamiliar users to use the crossings safely and to minimise reliance on the briefing of all visitors by authorised users (which is not always practicable);
- e) improving the conspicuity of the miniature stop lights (eg using two miniature stop lights on each side of the crossing, the use of larger 'road traffic light' style red and green lights, flashing red miniature stop lights, or wig wag lights) and the number and clarity of the signs, to minimise confusion and distraction; and
- f) whether the opening of the gates should be disabled unless the miniature stop lights are displaying green lights.

This review should draw on the findings from recent relevant research (eg RSSB's research into signs at private level crossings (T983) and human factors advice). Any measures for safety improvements at such crossings should then be implemented at higher risk locations and incorporated into the standards for future designs.

In addition the review should consider, where manual crossings are partly or fully automated, making the process by which the user is informed it is safe to cross simple and intuitive and as fail safe as possible, ensuring the user is guided to make contact with the signaller where required (paragraphs 129b, 129c i).

ORR decision

9. Although it is clear that Network Rail have undertaken significant work to address Oakwood Farm rec 2, it is not clear from the response how each part of the recommendation has been addressed. We have asked Network Rail to redraft the response to show clearly how each of the points a-g in the recommendation is being addressed.

10. 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 have not clearly indicated how each part of the rec is being addressed.

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

11. On 22 May 2019 Network Rail provided the following initial response:

Network Rail is progressing actions to deliver recommendation 2, Oakwood Farm which wholly encompass the delivery of Frogna Farm 2 by their completion.

The current position relating to Oakwood Farm 2 is outlined in the updated action plan below.

Action Plan – Oakwood Farm 2 (update April 2019)

Further to the extension paper submitted on 30/09/2018, there has been a significant development within Network Rail regarding the future of POGO equipment.

The POGO product acceptance process, initiated to address reliability and safety problems, has been terminated due to the supplier's inability to meet contracted requirements. Network Rail considered using an alternative supplier to support the product acceptance process, but the cost of alterations required to bring the pre-purchased equipment up to the required standard were too high for the project to remain viable.

Whilst future rollout is therefore managed, 28 sites remain operational across the network following Routes assessments of localised risks and compliance to Special Inspection Notice 173. To mitigate the reputational risk to Route customers of decommissioning equipment which has been operating without issue to date across these sites, the project will continue in a condensed form to provide the necessary support to life extend equipment and manage safety.

The project will now review low-cost life extension options for POGOs. A suite of guidance documentation will be produced for use by Routes, detailing how to life extend, set-up and maintain their operational POGOs using pre-purchased equipment.

Linking POGO and MSLs at the 8 operational sites, remains firmly in scope. The concept to achieve this was proven as part of the project within CP5. Jacky Duffin Wood will form the pilot to this, with the 7 further POGO/MSL sites to follow thereafter.

Key elements to be delivered by the project:

- *Provision of guidance to Routes to enable safe installation, maintenance and life extension of POGO without supplier support*
- *Development and deployment of a product standard, including site suitability and installation and maintenance criteria*
- *Improving user understanding of crossing protocol across the 28 sites, building on the results of the HAZID and content of SIN 173*
 - *Enhanced briefing for authorised users and invitees*
 - *Ergonomic layout of signage and equipment tailored to POGO and POGO/MSL locations:*
 - *new signage, absorbing the guiding principles developed by RSSBs T983 research paper;*
 - *clarity of instruction on how to operate the crossings;*
 - *removal of unnecessary signage and prioritisation of key safety messages;*

- *conspicuity of signage and equipment (including MSLs); and*
- *manual release pins clearly identified and accompanied with clear instructions.*
- *A linked POGO and MSL system solution that will prevent the POGO system opening the gates when the MSL is displaying a red aspect.*

Timescale: 31 December 2019

Recommendation 4

The intent of this recommendation is to improve the safety of private level crossings by putting in place measures to give relevant Network Rail staff valid and up to date information about all those people who may regularly use the crossing.

Network Rail should review the way in which it collects, records and maintains data relating to people and organisations with the need to regularly use private crossings, so that local staff have an effective and efficient means of contacting anyone who is resident or whose business requires them to regularly use a user worked crossing. This review should cover:

- a) effective communication with everyone who may be affected by decisions made about changes to a crossing, using means such as correspondence, signage and publicity campaigns;
- b) determination of the extent and nature of the actual use at crossings; and
- c) establishing processes to give all people who must use the crossing regularly up to date information about any changes to the crossing, or to any responsibilities they have regarding the safe use of the crossing. (paragraphs 129a.ii, 130, 131d)

ORR decision

12. The Network Rail response only covers measures being taken to gather information about authorised users of level crossings. Our understanding of the recommendation is that it covers all users of private crossings, so we have asked Network Rail if their intention is to focus only on authorized users, and if so, explain why.

13. 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 plan that takes into consideration all users of private crossings.

****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

14. On 9 January 2019 Network Rail provided the following initial response:

Network Rail accepts this recommendation and in addressing its intent will:

- *Audit its existing authorised user database to identify if further intelligence is required to improve the quality of information it holds. It will undertake this by identifying gaps in data and developing a timebound plan to address any areas of weakness. Target completion date is 30/06/2019.*
- *Explore opportunities to strengthen the accuracy in which information about authorised users and their undertaking is collected by taking a more holistic review of intelligence gathering. This review will focus on greater use of intelligence sources such as the land registry and will evaluate other collaborative on-site activities which may support more comprehensive data collection. Target completion date is 31/07/2019.*

• *Review the templated letters it sends to authorised users of private level crossings to assure:*

Content is robust in how it seeks to determine the extent and nature of actual crossing use and is explicit in seeking to identify subletting of property or dwellings;

That the legislative safety obligations placed on authorised users and their invitees are explicitly highlighted, including where locally appropriate, noting where restrictions on land use form part of access agreements; and

That the associated company procedures instructing communications, are suitable in delivering effective communication with everyone who may be affected by current crossing operation or future proposals and changes to private level crossings. Target completion date is 31/10/2019.

- *Investigate the use of public notices to support cascading of information on changes to level crossings. Target completion date is 31/10/2019.*

Target completion date is 31/10/2019.

- *Formalise any procedural changes within standards, guidance and good practice based on the output of recommendation activity by 31/12/2019.*

Network Rail is already working collaboratively with ORR and DfT to improve signage at private level crossings. This is a separate activity which addresses other recommendations made by RAIB, such as Frogmal Farm 1 and Frogmal Farm USA. Network Rail does not propose to duplicate reference to this workstream within its response to Frogmal Farm, recommendation 4.