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Mr Andrew Hall
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Dear Andrew,

RAIB Report: Fatal accident at Frampton level crossing

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 28 May 2015.

The annex to this letter provides details of the consideration given/action taken in respect of these recommendations. The status of recommendations 1, 2, 3 and 6 is '**Progressing**' and recommendation 5 is '**Implementation ongoing**'. ORR will advise RAIB when further information is available regarding actions being taken to fully address these recommendations. Recommendation 4 was addressed to the Department for Transport so the status of this recommendation is '**Other Public Body or Authority**'.

We will publish this response on the ORR website on 18 May 2016.

Yours sincerely,

Andrew Eyles

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

Initial consideration by ORR

Initial consideration by ORR

1. Of the 6 recommendations contained in the report, 5 were addressed to ORR when the report was published on 28 May 2015. Recommendation 4 was addressed to the Department for Transport (DfT).
2. After considering the recommendations ORR passed recommendations 1, 2, 5 and 6 to Network Rail to asking it to consider and where appropriate act upon them and advise ORR of its conclusions. Recommendation 3 was for ORR to directly consider. The consideration given to each recommendation is included below.

Recommendation 1

The intent of this recommendation is to provide short-term action at level crossings where deviations from existing signage requirements are so great that remedial action is required before any implementation of improvements triggered by recent research.

Network Rail should identify locations where level crossing sign positions differ significantly from the requirements of guidance and standards, and then install signs at the appropriate location, unless the proposed position of the signs is contrary to recent research

ORR decision

3. Network Rail has confirmed in its response that its Level Crossing Managers (LCMs) already check that signs are displayed in the most prominent location as to be effective in accordance with its own guidance on User Worked Crossing (UWC) signage (i.e. that it should be in the best position to attract the attention of the user and to facilitate being acted upon (i.e. to telephone the signaller in the case of Frampton Mansell)).
4. Clarification has subsequently been provided by RAIB that the intention of this recommendation was not for Network Rail to undertake a review of all level crossings, rather that LCMs include the consideration of whether signs are positioned correctly as part of their routine level crossing assessments. Network Rail has confirmed to ORR that this is the case.
5. ORR has, however, sought written clarification from Network Rail as to whether its level crossing narrative risk assessment, which it notes requires the consideration of the visibility of signage, specifically requires LCMs to review and consider whether signs are situated in the correct location in accordance with relevant guidance or standards.

6. For information, ORR’s own level crossing guidance is currently being revised and is unlikely to explicitly state in future that footpath or bridleway signage should be positioned at the decision point. In accordance with the latest RSSB research it is expected that the industry will adopt yellow decking within the danger area rather than mark notional decision points, the signage will still need to be positioned in the most suitable location either based on industry standards or suitable and sufficient risk assessment. However, actions from RSSBs research on signage are still to be agreed.

7. After reviewing information received 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 a timebound implementation plan has yet to be provided.

Status: Progressing. ORR will provide a further update to RAIB when the status of this recommendation changes.

Information in support of ORR decision

8. In its response of 7 December 2015 Network Rail provided the following information:

At the time of the accident at Frampton UWCT, the “Stop and Telephone” signs (to diagram 103) that were provided on the North (Up) side approach for road vehicle users were situated near to the telephone. This positioning allows for the natural stopping position of road or agricultural vehicles far enough back to open the gates and therefore optimising the likelihood of a road vehicle user observing and reading them. This is also in line with Network Rail standard NR/L2/SIG/30015 “Specification for Station, Footpath, Bridleway and User-worked Level Crossings” section 8.7 pp 39 Figure 59.

The suitable positioning of mandatory signs is already part of the business as usual activities of risk assessment and inspection. During the risk assessment the Level Crossing Managers (who carry out these duties) complete the following questions (taken from latest Frampton ALCRM risk assessment);

<p>Are the signs for the crossing located? (If not directly on the route a crossing user would use, make note in Notes section.)</p>	<p>On the route a crossing user would take to cross the crossing directly</p>
<p>Are the signs at the crossing positioned so as to be clearly visible for crossing users on a direct route over the crossing? (If no, note type of signs and any issue in Notes section.)</p>	<p>YES</p>

During the asset inspection the Level Crossing Managers complete the following questions (as taken from the Asset Inspection form);

Check, with reference to the Ground Plan or Level Crossing Order that may exist, that all Road Signs and Notices are:

- present,
- clean and not faded,
- of the correct size,
- clearly visible to road users,
- bi-lingual, where required.

Pay particular attention during the vegetation growing period, to any vegetation that has the potential to obscure signs.

Network Rail has an assurance process to monitor completion of asset risk assessments (ALCRM KPI Report) and asset inspection (Ellipse KPI Report) and these are reported in the SHEP. Network Rail standard NR/L2/SIG/19608 mandates that the Operations Risk Advisors and the Off Track Section Managers carry out site visits at a number of sample locations to check that the inspection process is being followed correctly.

Network Rail's processes therefore already require Level Crossing Managers to consider the suitable positioning of signs and to take appropriate action as necessary.

Recommendation 2

The intent of this recommendation is to improve level crossing signs, with regard to their conspicuity, message, content and clarity of information (the RAIB has already made a similar recommendation for user worked crossings).

Network Rail should utilise the findings from this investigation, and all available research (including the forthcoming RSSB research report T983), to update its guidance for signage, and other user guidance, provided at bridleway and footpath crossings. The updated guidance should take account of circumstances where another type of level crossing (eg a user worked crossing) is located at, or close to, the bridleway or footpath crossing. It should also take account of prohibitions (eg use of bridleway and footpath crossings by motorcycles) and circumstances when it is appropriate for pedestrians to use a telephone. Network Rail should also:

- liaise with the Office of Rail and Road to ensure that its updated guidance is compatible with the ORR's own version of good practice; and
- seek the assistance of the Department for Transport to enable any necessary legislative changes needed to implement the updated guidance

ORR decision

9. Whilst RSSB research project T756 identified that some proposed measures were considered to be best practice for the design of new level crossings, it also recognised that it was only feasible to implement them as part of a level crossing design when maintenance or an upgrade is carried out, or if a level crossing has a particular issue identified where it is believed the measure is practicable. T756 also

recognised that a number of proposed measures would need to be subject to further research and development work (such as the proposed universal advanced level crossing warning sign) and / or written into legislation before they could be delivered.

10. The output from RSSB research project T983 will also be subject to similar implementation constraints and therefore the actions to deliver recommendations 2, 3 and 4 of this report may either not be considered feasible to implement or take a considerable amount of time to deliver.

11. After reviewing information received 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 yet to provide a timebound plan for full implementation.

Status: *Progressing*. ORR will provide a further update to RAIB when the status of this recommendation changes.

Information in support of ORR decision

12. In its response of 7 December 2015 Network Rail provided the following information:

The action plan for this recommendation shall be carried out in two phases.

Phase 1

Desktop research will be carried out to review the content of relevant legislation, company standards, industry research and guidance documents. This desktop research will allow us to determine the mandatory requirements and non-mandatory best practice relating to signage at level crossings. The following documents shall be included in the desktop research phase;

- 1. RSP7 [ORR] Level Crossings; a guide for managers, designers and operators Railway Safety Publication No. 7*
- 2. NR/L2/SIG/30015 Specification for Station, Footpath, Bridleway, User-worked Level Crossings*
- 3. T983 Signs at private road level crossings*
- 4. T756 Research into signs and signals at public road level crossings Phases 1 and 2*
- 5. The Private Crossings (Signs and Barriers) Regulations 1996*

Following the desktop research, improved guidance shall be produced for footpath, bridleways, user-worked crossings and user-worked crossings with telephones. The updated guidance will take account of circumstances where another type of crossing is located at, or close to, the bridleway or footpath crossing and will also take account of prohibitions and circumstances when it is appropriate for pedestrians to use a telephone.

This phase shall conclude when;

- a) desktop review is complete, (by 31st October 2015)
- b) updated DRAFT guidance is complete in the form of a 'strawman' Level Crossing Guidance (LCG) document, (by 30th November 2015)
- c) the ORR and Network Rail Routes have been consulted and allowed to offer comments, (by 31st December 2015)
- d) final LCG document and supporting briefing slides have been produced, (by 31st January 2016)
- c) the LCG document and briefing slides have been issued to Route teams and published on the Level Crossing Hub (by 31st January 2016).

Phase 2

Network Rail will participate with the ORR and RSSB in the wider cross industry review of the 12 recommendations from T983 (including; new high level advanced warning sign, high level instruction signs, new detailed instructions signs for UWCs, red and white markings and red roundel for gates and yellow 'danger area' decking marking 'danger zones'. Feedback to be provided by 31st July 2016.

This phase will commence immediately – an initial meeting is currently being organised by the RSSB.

13. On 26 January 2016, in response to ORR's request for an update on the 'strawman' Level Crossing Guidance document consultation and confirmation of to whom the Phase 2 feedback was to be provided, Network Rail submitted the following response:

The guidance document referenced in the action plan for Frampton Mansell, recommendation 2, is jointly shared with Network Rail's formal response to recommendation 3, Jetty Avenue. The document is well advanced, although final delivery is slightly behind the timescales shown within the action plan. An early iteration of the guidance document was shared with ORR during formal discussion with Network Rail in November 2015. Network Rail has a programme plan in place in which to finalise the guidance in the next 4 weeks. The final draft will then be shared with ORR as part of a formal consultation process. An extension to the 31/03/2016 is pending.

Network Rail recognises that both the ORR and RSSB will be a central part of the stakeholder review process regarding the recommendations of research paper T983. The terminology used in the action plan refers to the provision of a formal positional update to the recommendation (to the ORR) in connection with decision making and possible implementation strategies. This will also include decisions about any extensions and revised plans as applicable

Recommendation 3

The intent of this recommendation is to provide the ORR input needed for effective implementation of recommendation 2 by Network Rail. The two recommendations are intended to improve level crossing signs, with regard to their conspicuity,

message, content and clarity of information. The RAIB has already made a related recommendation to the ORR for user worked crossings.

The Office of Rail and Road should utilise the findings from this investigation, and all available research (including the forthcoming RSSB research report T983), to update its guidance for signage, and other user guidance, provided at bridleway and footpath crossings. The updated guidance should take account of circumstances where another type of level crossing (eg a user worked crossing) is located at, or close to, the bridleway or footpath crossing. It should also take account of prohibitions (eg use of bridleway and footpath crossings by motorcycles) and circumstances when it is appropriate for pedestrians to use a telephone. The Office of Rail and Road should seek the assistance of the Department for Transport to enable the necessary legislative changes needed to implement the updated guidance

ORR decision

14. ORR will ensure any relevant guidance it produces takes account of the findings of this RAIB report, RSSB research and the actions taken by Network Rail to address recommendation 2. Any guidance provided will need to be mindful of the legal status of the signage and if appropriate we will work with the industry and DfT to facilitate any legislative changes needed.

15. After reviewing information received ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, ORR has:

- taken the recommendation into consideration; and
- will take action to implement it if and when the need arises.

Status: *Progressing.* ORR will provide a further update to RAIB when the status of this recommendation changes.

Recommendation 4

This recommendation is intended to provide any necessary legislative support for improving level crossing signage as sought by recommendations 2 and 3.

The Department for Transport should work with Network Rail and the Office of Rail and Road, to identify any appropriate legislative changes needed to allow implementation of the improved level crossing signage sought by Recommendations 2 and 3. If required, the Department for Transport should help make the necessary legislative changes.

16. ORR understands that DfT is awaiting the results of the research discussions and implementation of the other, non-legislative actions before determining whether revisions to the regulations are necessary.

Status: *Other Public Body or Authority.*

Recommendation 5

This recommendation is intended to ensure that level crossing risk is managed with an adequate understanding of actual crossing usage.

Network Rail should modify its procedures, guidance and/or training in order to obtain, where reasonably practicable, an improved understanding of actual crossing use (eg use of bridleway crossings by motorcyclists), and take action to ensure it adequately controls the associated risks. This should include considering use of social media (eg videos uploaded to internet sites), evening and/or weekend site visits to identify recreational use of the crossing, and the use of surveillance equipment.

ORR decision

17. ORR is content that the action plan presented by Network Rail will, when implemented, meet the intent of the recommendation.

18. After reviewing information received 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 March 2016. ORR is awaiting formal confirmation of completion.

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

Information in support of ORR decision

19. In its response of 7 December 2015 Network Rail provided the following information:

There are two elements to this recommendation. The first element is regarding Network Rail modifying its procedures, guidance and training to obtain an improved understanding of actual crossing use.

The second element of the recommendation is about improving our procedures, guidance and training to control the risks identified by the greater level of intelligence.

Element 1

The first element to this recommendation has already been implemented. Network Rail, along with colleagues at the ORR, have recognised that greater intelligence is needed in understanding how level crossings are being used, including numbers of users, times of day/days of the week crossings are used, user groups, human factors and behaviours etc. Actions have been taken accordingly and incorporated into our business as usual processes including;

- *Route teams have been issued with 236 cameras and 121 gate counters to obtain a much more accurate understanding about how their crossings are being used. This information feeds into the business as usual risk assessment process. This has resulted in 1,030 level crossing risk assessments that are now based on 24 hour extended census rather than estimated or quick (30 minute) census. This is a significant increase.*
- *Improved guidance has been issued covering; site visits, census gathering, using 'smart' sources of information and stakeholder engagement to improve level crossing risk assessments.*

Element 2

Network Rail has improved the organisational capability to manage risk at level crossings through the introduction of Level Crossing Managers. We have improved the training and competence regime for the LCMs so that they better recognise human factors prevalent at level crossings. We have introduced Narrative Risk Assessments which give a better balance of risk modelling and structured expert judgement/local knowledge. This NRA framework also improves content and consistency of risk assessments and leads to set conclusions and recommendations.

However, Network Rail agree that there is an opportunity to improve guidance issued to the routes about the actions that should be taken to address risks identified through the greater level of intelligence. The Central Level Crossing Team will develop some additional guidance to highlight the type of actions that might be necessary based on intelligence gleaned during the risk assessment process or from subsequent intelligence reports from third parties, TOCs, rail staff etc.

This guidance will be implemented by 31 December 2015.

20. On 26 January 2016, in response to ORR's request for an update specifically addressing consideration of the use of social media, Network Rail submitted the following response:

Network Rail acknowledges that the action plan provided in the formal response to the recommendation does not specifically refer to the use of social media. The guidance referred to in 'element 2' of the action plan, which will feature within a revision of the Census Good Practice guide, will reflect greater the opportunity for using social media as a mechanism for improved intelligence about crossing usage.

21. Network Rail also indicated that the timescales for implementation were to be extended to 31 March 2016.

Recommendation 6

The intent of this recommendation is to provide clear information about locations where public vehicular restrictions exist at level crossings that cross highways.

Network Rail should identify level crossings where safety management depends on the general public being aware that they are not allowed to use the level crossing with vehicles, including cars, motorcycles and trail bikes. For these crossings, Network Rail should:

- liaise with the relevant highway authorities to ensure their highway records, and any related documents and publications, clearly show the absence of a public vehicle route at the level crossing;
- share information about prohibitions with local and national organisations representing groups such as 4x4 vehicle drivers and trail bike riders; and
- arrange for signs to be provided on the highway approaches to the level crossing, and at or near the crossing itself, to show the prohibition that applies.

ORR decision

22. Whilst ORR considers it is not reasonably practicable for Network Rail to nationally install and maintain vehicular prohibition signage on land which is not its own on the approach to private crossings, it considers that it is reasonable for Network Rail to do more to liaise with highways authorities to attempt to ensure that public documents (including maps) are clear on right of way status at such crossings.

23. ORR also considers that, whilst it may not be reasonable to expect Network Rail to cultivate and maintain relationships with every interest group that *may* use a level crossing, Network Rail should liaise with relevant organisations where an issue is identified (as was the case at Frampton Mansell), or when liaison with highways authorities reveals that vehicular prohibitions are not adequately indicated in public documents, including on maps used by the public and members of those organisations. Network Rail has indicated that it will consider these issues further.

24. After reviewing information received 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 considering how this recommendation can be implemented.

Status: *Progressing*. ORR will provide a further update to RAIB when the status of this recommendation changes.

Information in support of ORR decision

25. In its response of 7 December 2015 Network Rail provided the following information:

This recommendation is not practical and contradicts published research, such as 'On Premise Signs and Traffic Safety' by Douglas Mace, which suggests that less signage is desirable in order to maximise the impact of the most safety critical signs. This research discusses how too many competing signs mask the visibility of needed information.

Network Rail would need to erect detailed and additional signage at the level crossing. If implemented, this could apply to the entire passive estate of level crossings, circa 4,800 assets.

Each asset has specific signage advising the user how to cross the railway safely and, in accordance with alternate RAIB recommendations, Network Rail is looking to de-clutter and reduce the number of signs exhibited at a level crossing. This recommendation would appear to be in conflict with previous recommendation by introducing further signage which Network Rail also considers would be ignored and possibly even forcibly removed. It is also noted that this does not seem to be a requirement on any other part of a highway network where safety issues may also be of concern.

In relation to the bullet point recommendations:

- In determining the rights that exist over a level crossing, Network Rail uses the relevant Highway Authority as one of the external sources for establishing rights. Network Rail therefore has no control over a Highway Authority to ensure their highway records and any related documents and publications clearly show the absence of a public vehicular route over the level crossing. At best Network Rail only has the capacity to advise a highway authority on the rights it perceives are correct.*
- To identify all external organisations (local and national) throughout the Country is an exhaustive task, if not impractical. Identified contacts would need to be established and maintained, and there would be no assurance that all organisations would suitably share the information with their members.*
- Network Rail has no power or authority to place signs in a highway, or adjacent on private land) on approaches to level crossings. Network Rail also has no inspection or maintenance regime in place to manage such signs if indeed they were provided. It is also envisaged that many such signs would be forcibly removed by members of the public objecting to the public status. Where an incident was to happen where signs had been removed (and not replaced) then there would be liability implications.*

Based on the above, Network Rail proposes that the recommendation is not reasonably practicable.

26. On 26 January 2016 Network Rail provided the following additional information in response to the issues raised by ORR in respect of additional liaison with highways authorities and other relevant organisations:

An opportunity might exist for the Network Rail and ADEPT collaborate working group to explore a better aligned approach at a local level; utilising Road, Rail Partnership Groups as an avenue for focus in this area, for example.

The importance of stakeholder engagement is already encouraged within the level crossing risk assessment process. It is extensively adopted by the Level Crossing Manager community. The opportunity to expand on this further, taking account of the above good practice points is accepted. This will be incorporated within the guidance material to address recommendation 5.