Chris O'Doherty RAIB Relationship & Recommendations Handling Manager Telephone 0845 301 3356



E-mail chris.o'doherty@orr.gsi.gov.uk

22 February 2012

Ms Carolyn Griffiths
Chief Inspector of Rail Accidents
Rail Accident Investigation Branch
Block A 2nd Floor
Dukes Court
Dukes Street
Woking
GU21 5BH

Dear Carolyn

Investigation into the safety of automatic open level crossings

I write to report¹ and update on the consideration given and the action taken in respect of the recommendations addressed to ORR in the above report published on 28 July 2011.

The annex to this letter provides full details of the consideration given/action taken in respect of recommendations 1, 2, 3, and 4 where recommendations 1, 2 and 3 have been or are being implemented² and recommendation 4 is in progress.

We do not propose to take any further action on recommendations 1,2 and 3 unless we become aware that any of the information is inaccurate in which case we will write to you again³. We will provide an update on recommendation 4 in August 2012. We expect to publish this report on the ORR website on 6 March 2012.

Yours Sincerely

Chris O'Doherty



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

In accordance with Regulation 12(2)(b)(ii)

In accordance with Regulation 12((2)(c)

Consideration by ORR

All 4 recommendations contained in the report were addressed to ORR when RAIB published its report on 28 July 2011.

After considering the report / recommendations, on 17 August 2011, ORR passed all 4 recommendations to Network Rail who provided its response on 5 October 2011.

Details of consideration given and any action taken, in respect of these recommendations are provided below.

We also passed these recommendations to Nexus (Newcastle Metro) for its consideration and to the Heritage Rail Association to bring the report to the attention of its members.

Recommendation 1

The intention of this recommendation is that Network Rail should upgrade the highest risk AOCLs [Automatically Open Crossing Locally Monitored] by fitting barriers, or implementing other measures to deliver an equivalent or improved level of safety, such as by closing crossings.

The RAIB envisages that when identifying those crossings to be upgraded, special consideration should be given to those 32 crossings with an enhanced likelihood of a road vehicle and train collision (listed at appendix D). However, it is anticipated that Network Rail's more detailed assessment of risk, taking into account factors such as the speed of trains, may identify different and/or additional crossings for upgrade.

The RAIB is aware that Network Rail's development of retrofit half barriers should allow a cost effective upgrade, but if this development is not completed and proved in the near future, the upgrading of the highest risk AOCLs should still be implemented based on existing forms of level crossing protection.

In addition, the RAIB is of the view that the implementation of a programme to upgrade AOCL crossings should not be delayed by the need to review and improve existing risk assessment management arrangements (as outlined in Recommendation 3).

Network Rail should immediately implement a programme to upgrade the highest risk AOCLs. The crossings for upgrade should be selected by appropriately skilled personnel, on the basis of factors that include:

- their past record of incidents and accidents;
- an assessment of risk and the safety benefit of the upgrade; and
- the human factors issues present at each.

Upgrades should consist of fitting barriers, or other measures delivering an equivalent or improved level of safety.

Details of steps taken or being taken to implement the recommendation

1. Network Rail in its response on 5 October 2011 advised that:

Network Rail is developing a cost effective barrier 'overlay' for AOCLs (known as AOCL+B [Barrier]). Development funding has been secured and trials at three locations are due to commence in December 2011. Funding for the roll out programme is being sought at Investment Panel at the end of September 2011. Dependent on a successful trial, the roll out programme at high risk AOCLs would take place during 2012.

Timescale: by 31 December 2012

ORR Decision

- 2. ORR is satisfied that Network Rail is implementing a programme to upgrade its highest risk AOCLs. The project is looking to upgrade about 70 AOCL crossings in total, including all those identified by RAIB. The upgrade consists of adding a modular barrier system to an existing AOCL, this modular arrangement will enable swift roll-out at the crossings identified.
- 3. ORR has been kept informed over developments and is expecting commissioning at two trial sites in Ardrossan by March and June 2012. Upgrading of other sites is planned to take place over the next two years, within control period 4.
- 4. ORR is concerned that there has been a delay of a few months in getting the Ardrossan trial sites up and running. ORR is maintaining close communication with Network Rail and is monitoring to ensure that delivery is not allowed to slip unreasonably.
- 5. ORR is satisfied that Network Rail has made a firm commitment and has a plan to deliver the recommendation.
- 6. After reviewing all the information received from Network Rail, ORR 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.

ORR will write to RAIB again if it becomes aware that the information above is inaccurate.

Status: Network Rail is taking action to implement the recommendation.

Recommendation 2

In parallel with, but not delaying Recommendation 1, the intention of this recommendation is that Network Rail reviews the existing risk assessments of all AOCLs to identify whether all the relevant human and local factors have been identified and appropriate mitigations implemented. Where this is not the case, a prioritised programme of improvements should be implemented:

Network Rail should review its risk assessments at AOCLs to identify whether:

- all the relevant human and local factors have been identified (consideration should be given to the human factors issues in appendix F); and
- all appropriate mitigation measures have been implemented.

Where omissions are identified, these should be rectified by a prioritised programme of improvements.

Details of steps taken or being taken to implement the recommendation

7. Network Rail in its response on 5 October 2011 advised that:

Network Rail has already re-visited its risk assessments of AOCLs as part of developing the list of high risk crossings which will form the AOCL+B roll out/delivery plan.

Timescale: Complete

ORR Decision

- 8. This recommendation echoes the Management of Health & Safety at Work Regulations duty to undertake suitable and sufficient risk assessments. This is an ongoing duty and ORR continues to monitor Network Rail's compliance with it.
- 9. ORR is content that Network Rail already has in place policy and arrangements which are designed and should be able to deliver a good standard of risk assessment addressing the issues stated in the recommendation. The likely benefits of Network Rail's planned organisation changes by May 2012 should strengthen this position.
- 10. The further review and identification of approximately 70 AOCLs to be upgraded are evidence of Network Rail having made a good start to act on AOCL risks.
- 11. Given the relatively low risk profile of some AOCLs, the scale of Network Rail's proposed action is thought to be fully in line with the intentions of the recommendations in this report.
- 12. The delivery of the upgrade programme to install AOCL+B and the actions to address recommendation 3 should adequately address relevant human and local factors at AOCLs.
- 13. After reviewing all the information received from Network Rail, ORR 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.
- 14. ORR will write to RAIB again if it becomes aware that the information above is inaccurate.

Status: Implemented

Recommendation 3

In parallel with, but not delaying Recommendation 1, the intention of this recommendation is to improve the risk assessment of level crossings by the correct identification of specific human factors issues and other local factors, and the implementation of appropriate mitigation measures:

Network Rail should review, and as necessary update, its processes, guidance, training and briefing of its staff, on how to identify and assess the specific human and local factors at level crossings, so that it can establish whether further mitigation measures should be implemented (paragraph 169).

Details of steps taken or being taken to implement the recommendation

15. Network Rail in its response on 5 October 2011 advised that:

Network Rail has commenced a thorough and wide ranging Level Crossing Risk Management Improvement Programme as a result of a review held between October 2010 and February 2011.

The Programme contains 17 work streams which include updating processes, guidance and training of staff to better identify and assess human and local factors at level crossings.

Timescale: by 31 May 2012.

ORR Decision

- 16. Network Rail has in place policy and arrangements which are designed and should be able to deliver a good standard of risk assessment. In particular, contact with users of user-worked crossings, an issue of concern in earlier RAIB reports, is now set down as an essential part of Network Rail's risk assessment process. ORR notes positive activity being taken by Network Rail on its risk assessment review.
- 17. Network Rail's planned organisation changes to be implemented by May 2012 should strengthen this position, through the creation of dedicated level crossing teams and the bringing of all level crossing matters under single leadership.
- 18. After reviewing all the information received from Network Rail, ORR 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.

19. ORR will write to RAIB again if it becomes aware that the information above is inaccurate.

Status: Network Rail is taking action to implement the recommendation.

Recommendation 4

The intention of this recommendation is to make sure that the development of digital red light enforcement equipment is not delayed unnecessarily and that it is installed at selected AOCLs with a high incidence of violations:

In collaboration with the police, Network Rail should, without unnecessary delay, complete the development of digital red light enforcement equipment and install it at selected AOCLs which have high levels of violations.

Details of steps taken or being taken to implement the recommendation

20. Network Rail in its response on 5 October 2011 advised that:

Network Rail has included the development and roll out of Red Light Enforcement Equipment (RLEE) within its level crossing risk reduction plans for CP4. Funding is being sought at the September 2011 Investment Panel for a roll out programme.

Network Rail is working with the Association of Chief Police Officers (ACPO) to help source a Home Office approved RLEE camera and a client specification has been produced. The plan is to go to the 'market' in order to source a suitable camera system with 'back office' offence processing support and roll out cameras at high risk locations.

Timescale: by 31 May 2012.

ORR Decision

- 21.ORR is keen to see more use of this technology as part of a range of measures aimed at reducing level crossing risk and notes that the Network Rail response does not tie camera placement to AOCLs, ORR agrees with this approach. ORR believes that camera locations should be chosen on the grounds of risk, disruption and volume of misuse. Assuming a timely completion of the AOCL+B upgrade programme, the remaining AOCLs are unlikely to be prime candidates for fixed enforcement cameras.
- 22. ORR has some concerns about the length of time development seems to be taking and will check on progress in the summer of 2012 but notes Network Rail's intention to have even more fixed cameras at a large number of sites looking ahead to CP5 [2014 2019].
- 23. Currently there are three camera vans now in operation, each manned by a single BTP officer, and able to be moved around between priority crossings. These have had a useful public awareness and deterrent effect.
- 24. After reviewing all the information received from Network Rail, ORR 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.

Status: In progress – RAIB to be updated in August 2012