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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: Investigation into the safety of automatic open level crossings**

I write to provide an update<sup>1</sup> on the action taken in respect of recommendation 4 addressed to ORR in the above report, published on 28 July 2011.

The annex to this letter provides details of the action taken. The status of this recommendation is now '**Implemented**'. We do not propose to take any further action in respect of this 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 16 October 2015.

Yours sincerely,

**Andrew Eyles**

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

#### **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.

#### **Brief Summary on what was previously reported to RAIB on 13 February 2015**

1. Network Rail was continuing to engage with the Home Office for 'Type Approval' for Red Light Safety Equipment (RLSE). However, Network Rail was unable to state a completion date as this is a matter for the Home Office.

#### **Update**

2. On 5 June 2015 Network Rail provided the following closure statement:

*The National Level Crossing Team has been working with 3 different suppliers (Vysionics, SEA and Futronics) to develop Home Office Type Approved digital red light safety camera systems.*

*The Routes, in collaboration with the NLCT, selected 28 trial sites for cameras using the 3 suppliers, 8 of these sites are at AOCL/AOCL+B level crossings. Cameras are installed at all of the 28 sites.*

*One of the suppliers, Vysionics has achieved Home Office Type Approval for their system. The Vysionics system is in place at 20 of the 28 trial sites. This includes 6 of the AOCLs/AOCL+Bs. Red light safety enforcement has started at the Vysionics sites. This means that the following AOCLs/AOCL+Bs now have operational digital enforcement cameras installed;*

<i>Crossing Name</i>	<i>Type</i>
<i>Borth Capel Soar</i>	<i>AOCL</i>
<i>Dingwall No. 2</i>	<i>AOCL+B</i>
<i>Fairbourne</i>	<i>AOCL+B</i>
<i>Ffairfach</i>	<i>AOCL+B</i>
<i>Llanadog</i>	<i>AOCL+B</i>
<i>Melton Station*</i>	<i>AOCL+B</i>

*\*Melton Station is due to go live within the next few weeks. Barriers have been installed under Recommendation 1.*

*The remaining two AOCL+Bs (Plassers and Shiplake) are still trialling a red light safety camera system that so far does not have Home Office Type Approval (from Futronics). However, both of these locations now have barriers installed (under Recommendation 1) to help control and mitigate the risk of violations.*

*This recommendation is therefore closed on the basis that digital red light enforcement equipment has been successfully developed and installed at selected AOCLs.*

3. In its report, RAIB states (paras 159-161)

*At the time of this investigation, Network Rail was developing fixed cameras that could capture digital images, but these required approval by the Home Office before they could be installed at crossings. In the meantime, Network Rail was bringing mobile cameras into use attended by suitable publicity.*

*A deterrent to disregarding the light signals is stronger if the penalties available are correspondingly severe and given publicity. In this respect, the greater use of the serious offence of dangerous driving at level crossings, as supported by the DfT (paragraph 92) would increase the deterrent effect of RLEE.*

*The RAIB has concluded that the initiative to develop fixed digital cameras for use at crossings will have a significant impact on level crossing safety and should be prioritised.*

4. While intuitively it seems plausible that fixed Red Light Enforcement Equipment (RLEE) may result in reduction of AOCL risk, ORR notes that there is as yet no firm evidence as to whether there is an effect, or if there is, its magnitude or how long any risk reduction may last. The evidence from Highways England suggests there is an increased risk reduction when equipment is first installed which plateaus at about 12 to 18 months.

5. It is also the case that 64 of the 113 crossings that were open crossings at the time of the report now have barriers fitted - on the basis that they were of the highest risk - and are thus no longer AOCLs.

6. Network Rail has progressed with Home Office Type Approval (HOTA) for three enforcement cameras, to date this has been obtained for two, Vysionics and SEA. HOTA is still awaited for the Futronics system. This has been a very lengthy process.

7. Network Rail has installed fixed RLEE at 8 crossings that were AOCLs originally but each of these now has barriers installed. Four of these 8 were identified by RAIB as enhanced-risk in their investigation report. It should be noted that 2 of these 4 have not yet had their RLEE commissioned, pending HOTA.

8. Currently there are 10 AHB and AOCL+B crossings with commissioned RLEE and 18 awaiting commissioning. Network Rail does not have the funds to

commission further RLEE as part of this programme. However if the routes can make a case on a site by site basis based on risk assessment the equipment can be installed and commissioned.

9. Network Rail has made the case that it should be permitted to use CP5 funding provided to them to reduce risk at crossings for the installation of RLEE. This will not be viable unless Network Rail is able to provide persuasive evidence as to the quantified benefit that is achieved for the money spent on fixed RLEE. Accordingly, the company is planning 'before and after' studies in an attempt to quantify the risk reduction, if any, that fixed RLEE achieves.

10. It remains the case that Network Rail Level Crossing Managers can, with the agreement of BTP, deploy any of their 13 mobile RLEE equipment vans to crossings.

### **ORR Decision**

11. In view of all of the above, it is proposed that this recommendation should now be closed as Network Rail has developed and commissioned RLEE.

12. While not all sites have been commissioned and may not be until funding is acquired, this recommendation has been partially addressed but it is not considered reasonably practicable to progress further:

- While the Recommendation related to installing AOCL sites with high incidences of violations with Red Light Enforcement Equipment, 62 of those crossings assessed by Network Rail as highest risk are now fitted with barriers and are therefore no longer AOCLs;
- RAIB themselves identified 32 'enhanced risk AOCLs' for the fitment of barriers. 27 of those sites now have barriers. Five such crossings do remain as AOCLs due to site issues with the fitment of barriers or because there are other plans to address the issues. ORR is satisfied that the deployment of RLEE camera vans as identified necessary by Level Crossing Managers is a proportionate response to road traffic violations at these five sites;
- There is as yet no firm evidence as to whether there is an effect of fixed RLEE, or if there is, its magnitude or how long any risk reduction may last.

13. After reviewing all the 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
- taken action to implement it.

***Status: Implemented.***