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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 between a train and a car at Beech Hill level crossing,
near Finningley**

I write to provide an update¹ on the action taken in respect of recommendations 1, 3 and 4 addressed to ORR in the above report, published on 13 September 2013.

The Annex to this letter provides details of the action taken. The status of recommendation 1 is '**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.

The status of recommendations 3 and 4 is '**Progressing**'. ORR will provide a further update to RAIB when the status of these recommendations changes.

We will publish this response on the ORR website on 15 February 2016.

Yours sincerely,

Andrew Eyles

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

Recommendation 1

The purpose of this recommendation is to replace, with LED units, all remaining 36 W wig-wags at level crossings, with those having 'Bliss' lenses a priority. Network Rail issued Special Inspection Notice SIN121 on 9 May 2013 to locate all such crossings on its infrastructure. This inspection is to be completed by 27 September 2013.

Infrastructure managers should determine which level crossings are fitted with 36 W road traffic light signal (wig-wag) units or with 'Bliss' lenses and draw up a time bound plan so that their replacement with LED units is done as soon as possible, those with 'Bliss' lenses being dealt with first.

ORR decision

1. Network Rail has confirmed that its programme of work to replace all 36W road traffic light signal units or Bliss lenses has been completed.
2. ORR, having reviewed the responses from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations it has:
 - taken the recommendation into consideration; and
 - has taken action to implement it.

Status: Implemented. This concludes the full implementation of this recommendation.

Previously reported to RAIB

3. On 13 March 2015 ORR reported to RAIB that:
 - Network Rail had informed us on 12 November 2014 that of 420 sites it had identified as being in scope (i.e. currently fitted with 36W road traffic light signal units or Bliss lenses), 153 had been fitted with replacement LED units, and the remaining sites were due for completion by 30 June 2015. This element of the recommendation was classified as **Implementation ongoing**;
 - Nexus had already addressed the risk the recommendation seeks to address, with all 36W lamps having previously been replaced with 50W lamps (status: **Implemented**); and
 - the Heritage Rail Association confirmed that it had brought the recommendation to the attention of its members (status: **Implemented**).

Update

4. On 23 November 2015 Network Rail provided the following update:

Routes were issued with an instruction to identify all level crossings fitted with 36 Watt filament bulb road traffic lights (Bliss lenses had been eradicated from the network in 2014). When this investigation work was concluded 494 sites were identified as being in scope for LED replacement.

Subsequently 41 locations were de-scoped as they either had 50 Watt halogen bulbs or LEDs already.

Two crossings have been mothballed, and will be upgraded if brought back into use

- *Talbot Green TMOB in Wales Route*
- *Iron Acton Bypass TMOB in Western Route*

One crossing has RTLs not in use - footpath crossing only (Sherburn-in-Elmet CCTV on LNE)

The remaining 450 have now all been upgraded from 36 Watt to LED. A summary of commissioned installations is shown below.

Route	ABCL	AHB	CCTV	MCB	MGH	TMOB
Anglia	15	45	17	10	0	0
LNE	3	87	73	34	2	0
LNW	1	10	16	18	0	1
Scotland	0	12*	11	10	0	0
South East	1	9	19	7	1	0
Wales	0	3	0	3	0	0
Wessex	0	7	4	1	0	0
Western	0	11	5	9	0	2
Total	20	184	145	92	3	6

* Includes Rosarie AOCR

Recommendation 3

The purpose of this recommendation is to introduce a new 'brighter' type of LED wig-wag for use at sites where sunlight glare has been identified as a factor.

Infrastructure managers should, in conjunction with the other industry parties, develop a new type of wig-wag unit with higher luminous intensity than the existing LED units for use at crossings where high background luminance and sunlight glare is a particular problem, and install these units at the appropriate locations.

ORR decision

5. ORR notes that the delivery of this recommendation is dependent on the outcome of recommendation 2 and therefore an update on progress with the delivery of recommendation 3 is awaited from Network Rail.

6. ORR, having reviewed the latest response from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations it has:

- taken the recommendation into consideration; and
- is taking action to implement it but a timebound plan for delivery is yet to be provided.

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

Previously reported to RAIB

Network Rail

7. On 13 March 2015 ORR report to RAIB that Network Rail's work to 'product accept' an improved level crossing traffic light has been completed. Implementation of on-site work was to be dependent upon the outcome of recommendation 2 for which Network Rail had confirmed it would provide a time bound implementation plan.

Update

8. On 25 September 2015 Network Rail advised that the timescale for completion of the work to deliver this recommendation had been extended until 19 January 2016:

The assessment of sites where the developed LED wig wag is to be applied is dependent on the output of Beech Hill recommendation 2, which is still in progress with a date of 26 October 2015. Timescales for assessment of sites is assumed at this time, and the extent of installation work is unknown until assessments are available.

9. ORR understands that Network Rail is in the process of preparing a closure statement for recommendation 2 and expects to receive an update on recommendation 3 in due course.

Nexus

10. On 13 March 2015 ORR reported to RAIB that Nexus had indicated that it would be willing to consider further action if options become available as result of the work being undertaken by Network Rail.

Status: Progressing. ORR will raise this issue again with Nexus once Network Rail has reported the outcome of its work to implement recommendation 3.

Heritage Railway Association

11. On 13 March 2015 ORR reported to RAIB that whilst the HRA did not *propose taking any action on this recommendation, it would review its position if a new wig-wag of the type envisaged by RAIB was developed, approved and recommended for use.*

Status: Progressing. ORR will raise this issue again with HRA once Network Rail has reported the outcome of its work to implement recommendation 3.

Recommendation 4

The purpose of this recommendation is to ensure the inspection and maintenance process confirms that wig-wag light units continue to meet their specification (types other than 36 W, which will have been dealt with in Recommendation 1). This may be achieved by means of testing/inspection or by replacing lamps at the end of a defined service life.

Infrastructure managers should enhance the inspection and maintenance process for wig-wag lamps to provide assurance that they continue to meet their specified performance standard.

ORR decision

12. ORR notes that the timescale for completion of the lamp testing programme has been extended to 31 December 2016.

13. ORR, having reviewed the latest response from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations it has:

- taken the recommendation into consideration; and
- is taking action to implement it.

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

Previously reported to RAIB

14. We have previously reported to RAIB that Nexus has implemented recommendation 4.

Network Rail

15. On 13 March 2015 ORR reported to RAIB that the completion date for Network Rail to conduct a national sample survey of wig-wag lamps and lenses and submit a sample number of 24V 50W RTL lamp units for specialist testing had been extended to 30 June 2015 due to a failure of some of the test equipment used by the supplier.

Update

16. On 25 September 2015 Network Rail advised that the timescale for completion of this work has been extended to 31 December 2016, the reason being:

OptiConsulting (the specialist test house Network Rail has engaged to test the lamps & lenses) have reported that the life testing of the lamps has extended the timescales and the testing has also been delayed by the failure of a test instrument that had to be sent away for repair during the project.

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

HRA

17. On 13 March 2015 ORR reported to RAIB that the HRA was not proposing to take any action to advise members to undertake more technical testing to specifications, but if research by Network Rail manages to develop a cost effective method for doing this then HRA would review its position.

Status: Progressing. ORR will raise this issue again with HRA once Network Rail has reported the outcome of its work to implement recommendation 4.