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13 October 2015



Mr Andrew Hall  
Deputy Chief Inspector of Rail Accidents  
Cullen House  
Berkshire Copse Rd  
Aldershot  
Hampshire GU11 2HP

Dear Andrew,

**RAIB Report: Fatal accident at Halkirk level crossing, Caithness**

I write to provide an update<sup>1</sup> on the action taken in respect of recommendation 6 addressed to ORR in the above report, published on 23 September 2010.

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 6

*The intention of this recommendation is to cause Network Rail to change the design of long hoods so that they are more effective and to give its staff guidance on the criteria under which they should be fitted.*

Network Rail should review the design of long hoods that can be fitted at level crossings and implement any necessary changes identified to make them more effective. Guidance should also be issued to its staff on the specific circumstances of site orientation and prevailing lighting so that their use is optimal.

### Brief Summary on what was previously reported to RAIB on 1 August 2014

1. ORR reported to RAIB that tests discovered that the extended visors currently supplied by Unipart did not comply with drawing no MCX0402 figures 6b and 6c in the Highways Agency standard TR0102 and that an improved design had been developed. Network Rail was awaiting product acceptance to be granted by the Department for Transport's (DfT's) Highways Agency.

### Update

2. Network Rail has now provided a Certificate of Acceptance for the new extended-hood design (see Annex B). In producing the final design, Network Rail's consultants OptiConsulting considered 7 designs for the new long hood. Laboratory testing incorporated a subjective viewing trial.

3. It was concluded that a hybrid combining the features of the existing long hood with those of the standard hood was most appropriate. The new version gives side protection compared with the old long hoods which did not, and which did not have DfT approval.

4. A field trial was undertaken which combined subjective assessment of the performance of the extended hood with a test of the robustness of the hoods when exposed to the elements. This culminated in product acceptance as described in the attached document (see appendix).

5. While the product-accepted extended hood is suitable only for 50 Watt Halogen or Dorman LED units, Network Rail advised on 8 August 2015 that:

*It is progressing the elimination of 36 watt Wig-Wags [Beech Hill recommendation 1], a programme which is now substantially complete with a few remaining units due to be removed in the very near future. The completion of this programme will mean that the only Wig-Wag units remaining in service should be either 50 watt halogen or Dorman LED Units. Any new products proposed for introduction will need to provide an extended hood or equivalent option as a requirement to be accepted.*

6. The recommendation also required Network Rail to issue guidance to its staff on the specific circumstances of site orientation and prevailing lighting so that their use is optimal. Referral to the intent of the recommendation provides clarity; this was to give Network Rail staff guidance on the criteria under which extended hoods should be fitted.

7. Network Rail issued Notice Board 122 detailing the requirement for Signalling Maintainers to consider the effects of low sunlight on the horizon or swamping of the lens by sunlight behind the vehicle, with road orientation East to West (or vice versa) being most affected.



Notice Board 22.pdf

NR/L3/SIG/10663 NR/SMS/LC11 was also subsequently issued.



NRL3SIG10663 LC11  
Appendices.pdf

8. Level Crossing Managers are required to consider road orientation and sun glare/washout of lights as part of their Narrative Risk Assessment and the Level Crossing Risk Management Toolkit includes 'Sun Hoods' as a risk mitigation measure, with associated Risk Influencing Factors.



Sun Glare and Hoods  
in Level Crossing Risk

## ORR decision

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

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

**Status: Implemented**

# Certificate of Acceptance



PA05/05584

**Manufacturer:**  
Unipart Dorman

**Issue :** 1  
**Valid From :** 25/04/2014

## Extended Visors for Level Crossing Wig-Wags

### Product Description

This new design of extended visor has been developed which provides the side protection of the standard visor and the extended length of the historic pattern visor that held no formal acceptance. Two versions of the visor are available to fit 50W Quart Halogen and Dorman LED wig-wag units.

### Product Image



### Scope of Acceptance


#### Full Acceptance:


Accepted for use as an extended visor for level crossing wig-wags which are susceptible to sunlight swamping. These visors only fit Unipart Dorman LED modules and 50W Quartz Halogen units.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:

  
 2014.05.01  
 09:56:49 +01'00'  
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 Technology Introduction Coordinator

  
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 Professional Head – Signalling and Telecommunications

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