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27 February 2013

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

**Track Worker Struck by a Train at Cheshunt Junction, on 30 March 2010**

I write to provide an update<sup>1</sup> on the consideration given and action taken in respect of recommendation 2 addressed to ORR in the above report, published on 23 March 2011.

The annex to this letter provides details of the consideration given/action taken and reports that Network Rail has implemented the recommendation by alternative means.

We do not propose to take any further action in respect of recommendation 2 unless we become aware that any of the information provided becomes inaccurate, in which case I will write to you again<sup>2</sup>.

We expect to publish this response on the ORR website on 13 March 2013.

Yours Sincerely

Chris O'Doherty

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

<sup>2</sup> In accordance with Regulation 12(2)(c)



5100018

## **Recommendation 2**

*The intention of this recommendation is to address the concern that extended sighting times, and consequent early warnings from lookouts, can cause staff to react with less urgency to initial warnings or to adopt unauthorised systems of work.*

Network Rail should evaluate the behaviour of staff working on the track at locations with extended sighting times. The objective of this evaluation shall be:

- a) to understand the methods adopted by track workers at such locations;
- b) to assess the risk introduced by extended warning times;
- c) to assess the risk introduced by any alternative working practices that may be identified by staff; and
- d) to consider the need for additional guidance to the COSS and other safety critical staff.

Based on its understanding of current behaviour gained from this evaluation, Network Rail should establish a safe system of work to cover activities at locations with extended sighting times.

### **Brief Summary on what was previously reported to RAIB on 25 May 2012**

1. Network Rail in its response, on 17 May 2011, advised:

*That it felt that there is already evidence within the literature that suggests that extended sighting times will lead to unsafe behaviours such as delays in moving to a position of safety and therefore the focus of this work should be on understanding the extent to which it is a risk within the rail context.*

*Work will be undertaken which will involve 4 phases:*

- *a review of the safety behaviours literature to explore in more detail the factors that influence real time compliance with agreed safe systems of work where the hazard is not immediate or continuously present;*
- *an observational based study which will involve interviewing and observing track workers*
- *a risk assessment using the data gathered in phase 1 and involving key stakeholders to identify the risks of extended warning times and assess the impact on safety; and*
- *consultation with track workers and workforce safety advisors about the mitigation measures that could be implemented.*

2. Network Rail in its response, on 18 July 2011, advised:

*Phase 4 of the proposed Network Rail action plan is designed to address part (d) of recommendation 2. As part of the process of consulting with track workers and workforce safety advisors about potential mitigation measures to the risks of extended warning times.*

*Network Rail considered unwise to commit to providing additional guidance to COSSs until the risks of extended warning times and the potential mitigations were properly understood.*

## **Update**

3. Network Rail provided further information on 18 October 2012 advising that:

*Research has now been undertaken and interviews and observations undertaken across the company with a total of 49 Network Rail employees, including 40 track workers (most of whom hold a valid lookout competency and many hold a COSS competency), 6 Safety Advisors and 3 Section Managers or Assistant Section Managers. The findings from this work were that:*

- *If workers know they have an extended warning time, they may display a lack of urgency in responding to a warning and moving to a position of safety (POS).*
- *Extended warning times are considered to be a source of frustration as they reduce working time. This may lead to a temptation to move out of POS early, not move to the POS quickly when a lookout signals a warning or not use the correct POS (possibly favouring a nearer position considered safe by the individual).*
- *A lengthy warning time could lead to the forgetting of a warning or the assumption that the threat has passed and leaving the POS before the signalled threat has passed.*
- *It was also reported that some workers have in the past incorrectly identified a threat (e.g. hearing a train pass on a different line when looking elsewhere) and returned to worksite before signalled threat has passed. This possibility is considered more likely with an extended warning time.*

*These findings are consistent with findings from the literature on alarms and people's responses to alarms: specifically that long warning times (i.e., the time between a warning and the arrival of the threat) results in more risky behaviour with people ignoring the warnings and that the more familiar you are with a warning the less likely you are to notice/pay attention to it.*

*The research found that there are a number of strategies currently adopted by COSS's to reduce the extended warning time. Following consultation with the IM Workforce Safety Advisors and those involved in the research the preferred option was for a trigger point to be agreed between the COSS and Lookout when setting up their safe system of work so that extended sighting times could be avoided by agreeing the point at which the Lookout would give their warning rather than it being given as soon as the train is viewed, as per the method currently defined in the Rule Book. It was agreed that this method of working needs to be formalised within the Rule Book and training programmes for both COSS and Lookout.*

*A research report detailing this work and the findings is available from the Ergonomics Team.*

## **Conclusion**

*It is considered that having investigated the particular circumstances associated with extended sighting times, reviewed the potential risks that these may import, considered potential mitigations and identified an appropriate course of actions the intent of this recommendation has been met.*

*There is an outstanding action to formalise the practice of using trigger points. A Rule Book form change proposal has been submitted and a proposal put forward for*

*changes to be made to COSS training. Progress with both has been delayed due to the current standards moratorium and the revisions to the COSS NTS Programme.*

*The Head of Workforce Safety is in the lead for ensuring the actions are implemented.*

In considering the information provided by Network Rail ORR concluded that it did not provide sufficient information to fully address the recommendation.

ORR therefore wrote to Network Rail on 13 November 2012 requesting what is being done to ensure the proposed Rule Book and COSS training programme changes are carried out and what is being done to ensure suitable trigger points are used in the interim.

Network Rail provided further information on 22 November 2012 advising that:

*The Rule Book and Handbook changes are managed by the RSSB, but Network Rail has now collated a list of a number of changes it wish to be made in the June 2013 publication and has arranged to meeting RSSB and Wilson (the printers) in the new year to ensure those changes are included.*

*With reference to amendments to COSS and Lookout training, Network Rail currently operates a biannual review process of track safety training material, in line with the publication date for rule book changes. The December 2012 publication commences delivery from 1 December, and so Network Rail missed this review cycle.*

*The next publication date for track safety training material is scheduled to be prepared, distributed and for formal training delivery to commence from 1 June 2013. Due to the cost to the external training providers of purchasing this training material, Network Rail would ideally like to wait and roll the changes into this process.*

In considering the information provided by Network Rail ORR wrote to Network Rail on 22 November 2012 requesting what is being done to ensure Lookouts use appropriate trigger points in the interim and how is the continuing risk being managed until the formal revisions occur.

Network Rail provided further information on 23 November 2012 advising that:

*Having had some contact and conversations with front-line staff it would appear that common sense prevails and that it is already common practice for COSSes to identify a trigger point when discussing and agreeing warning times with Lookouts.*

*Within the current standards moratorium and the move to the Executive Rules, Network Rail is discouraging ad-hoc communications, briefings and alerts as they simply add confusion and appear as 'yet another rule'. Instead Network Rail is in favour of a managed approach to implementation which in this case Network Rail is hoping will be delivered through the existing training review process.*

*Network Rail is therefore resisting sending out an instruction or guidance on Lookout Trigger Points at this time, as it believes that whilst the revised training will enhance awareness the risk is already being managed in practice.*

## **ORR Decision**

4. 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.

ORR is content with the Network Rail's actions and will check that lookouts are now adequately aware of the need for suitable trigger points for long sighting distances and the risk effectively managed. If, in doing so, we become aware of an inaccuracy in what we have reported we will write to RAIB again

**Status: *Implemented*** – *by alternative means*