

## Recommendation(s) Status: Fatal accident at Moreton-on-Lugg, near Hereford, 16 January 2010




This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of implementation of the recommendations, as reported to us, has been divided into six categories:

### Key to Recommendation Status

<b>Implemented:</b>	All actions to deliver the recommendation have been completed.
<b>Implemented by alternative means:</b>	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
<b>Implementation ongoing:</b>	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
<b>In-progress:</b>	The relevant safety authority has yet to be satisfied that an appropriate plan, with timescales, is in place to implement the recommendation; and work is in progress to provide this.
<b>Non-implementation:</b>	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
<b>Awaiting response:</b>	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concerns on actions taken by organisations in response to recommendations are reflected in this report and are indicated by one of the following.

-  The red triangle shows recommendations where the RAIB has concerns that no actions have been taken in response to a recommendation.
-  The blue triangle shows recommendations where the RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.
-  The white triangle shows recommendations where the RAIB notes substantive actions have been reported, but the RAIB still has concerns.

Note: The tables which follow, report the status of recommendations on 31 December 2015. In some other cases the end implementer has already sent information to the relevant safety authority about the actions it has taken, or proposes to take and the safety authority is considering whether it is satisfied that those actions and the associated timescales are accepted.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on ORR's report to RAIB)
<p>1            16/01/2010    04/2011</p> <p>Fatal accident at Moreton-on-Lugg, near Hereford</p> <p>Status: Implementation ongoing</p>	<p>The intention of this recommendation is, where necessary, to implement engineered safeguards at level crossings similar to Moreton-on-Lugg. The objective is to reduce the risk of signallers opening the crossing to road users when a train is approaching, particularly as a result of interruptions or other out-of-course events.</p> <p>Network Rail should identify level crossings operated by railway staff where a single human error could result in the road being opened to the railway when a train is approaching. At each such crossing, Network Rail should consider and, where appropriate, implement engineered safeguards. Safeguards for consideration should include additional reminder appliances, alarms to warn of the approach of trains, approach locking, locking of the route, run-by controls, and local interlocking of train detection and signalling systems with level crossing controls (paragraphs 175 and 178).</p>	<p>ORR reports that Network Rail had planned to complete 97 level crossings by January 2014. However, the RAIB is concerned that to date Network Rail has only addressed level crossings that are protected by a signal. This issue was raised in a RAIB Bulletin published in 2013 (B01/2013 Near miss at Four Lane Ends level crossing, near Burscough Bridge, Lancashire). ORR reports that Network Rail is still working to identify all crossings where a single human error could result in the road being open to the railway when a train is approaching. The RAIB awaits the outcome of Network Rail's further consideration with interest. \$b</p>
<p>2            16/01/2010    04/2011</p> <p>Fatal accident at Moreton-on-Lugg, near Hereford</p> <p>Status: In-progress</p>	<p>The intention of this recommendation is that implementation of Network Rail's level crossing risk management process will identify and assess the risks from all aspects of the design, operation and maintenance of equipment and systems, including signalling, so that mitigation measures can be identified and implemented.</p> <p>Network Rail should enhance its level crossing risk management process to include identification, assessment and management of the risk associated with:</p> <ul style="list-style-type: none"> <li>• human error by signallers and crossing keepers;</li> <li>• operational arrangements, in particular with regard to the ability of operators to cope with interruptions, such as telephone calls, and other out-of-course events;</li> <li>• equipment design, in particular where it is not compliant with latest design standards; and</li> <li>• maintenance and inspection arrangements, particularly where these are used to identify and remedy any equipment functional and performance deficiency.</li> </ul> <p>The process should allow for sufficient liaison between the relevant engineering and operational departments. When addressing risks identified by the implementation of the revised process, Network Rail should prioritise the implementation of required mitigation measures to level crossings where consequences of operator error are severe and not protected by engineered safeguards (paragraphs 171, 172a, 172b, 173, 174a, 174b, 176b and 177).</p>	<p>ORR reports that Network Rail has recognised that the historic risk assessment process did not capture equipment design, therefore a cross-functional workshop was held to assess issues relating to equipment design within level crossing types and the impact that they can have on the risk profile, including how they can influence (or be influenced by) irregular working. The newly introduced training for the Level Crossing Managers (LCMs), as part of the wider National Level Crossing Improvement Programme, includes a section on types of irregular working events, how they happen and what can be done to further reduce the risk of occurrence. This detail provides the Level Crossing Managers (LCMs) with a greater understanding of some of the risks that may be associated with certain type of crossings. These irregular working examples are broken down into types involving Signallers, Drivers, and Level Crossing Attendants.</p> <p>ORR are seeking further information.</p>

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<p>3            16/01/2010    04/2011</p> <p>Fatal accident at Moreton-on-Lugg, near Hereford</p> <p>Status: Implemented</p>	<p>The intention of this recommendation is to ensure that whenever signalling renewal or major maintenance work is planned, those responsible understand when it is necessary to formally evaluate the opportunity to improve compliance with the latest engineering standards.</p> <p>Network Rail should develop and implement (paragraph 176a):</p> <ul style="list-style-type: none"> <li>• criteria for when it is necessary to formally assess the need to bring existing signalling and level crossing assets in line with latest design standards; and</li> <li>• a process to record the findings of such assessments.</li> </ul>	<p>ORR reports that Network Rail has issued a briefing note which reiterates the need to consider work that can be done to achieve best practice in design early in the project timescale. ORR are seeking further information on how Network Rail intend to define their policy related to upgrade of equipment, and what constitutes a reasonable opportunity to do so. Network Rail has indicated that it planned to conclude its work in this area by April 2014 with publication in September.</p>
<p>4            16/01/2010    04/2011</p> <p>Fatal accident at Moreton-on-Lugg, near Hereford</p> <p>Status: Implementation ongoing</p>	<p>The intention of this recommendation is for Network Rail to understand the risk posed by the use of non-critical information systems in signal boxes and implement practical mitigation measures.</p> <p>Network Rail should assess the risk associated with the use of TRUST, and similar information systems, by signallers when undertaking safety critical activities, and implement appropriate mitigation measures. This assessment should include a review of the extent to which signallers may be distracted or misled, and the influence of factors such as the location and orientation of any associated equipment (paragraphs 171 and 172b).</p>	<p>Network Rail has outlined the actions to be taken in response to the recommendation. ORR are seeking further information.</p>