

Recommendation(s) Status: Freight train derailment at Angerstein Junction

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

Implemented:	All actions to deliver the recommendation have been completed.
Implemented by alternative means:	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
Implementation ongoing:	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
In-progress:	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.
Non-implementation:	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
Awaiting response:	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 02/04/2014 11/2015</p> <p>Freight train derailment at Angerstein Junction</p> <p>Status: Implemented</p>	<p>The intention of this recommendation is to prevent wagons operating on the network with unacceptable uneven retained loads after unloading.</p> <p>Aggregate Industries, in consultation with relevant train operators, should review its processes for discharging aggregate hopper wagons, and for inspection of train loading and condition prior to despatch, to ensure that the risks arising from uneven residual loads are identified and effectively managed. Aggregate Industries should then implement appropriate control measures to mitigate this risk so far as is reasonably practicable (paragraphs 153(c), 153(e) and 154(a)).</p>	<p>ORR has reported that Aggregate Industries has reported that it has completed actions taken in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>2 02/04/2014 11/2015</p> <p>Freight train derailment at Angerstein Junction</p> <p>Status: Implemented</p>	<p>The intention of this recommendation is to manage the contribution that diagonal wheel unloadings, due to twisted bogie frames or other defects, make to derailment risk. The RAIB notes that action taken in response to this recommendation could be informed by work undertaken as part of the railway industry's response to the ORR's letter of 5 December 2014 (paragraph 163).</p> <p>RSSB, in conjunction with freight wagon operators, freight operating companies and entities in charge of maintenance for freight wagons, should review the extent to which diagonal wheel unloadings are present within freight wagon bogies that are operating on Network Rail infrastructure, and the contribution that this makes to derailment risk. This review should consider:</p> <ul style="list-style-type: none"> I identifying the magnitude and prevalence of diagonal wheel unloadings caused by bogie frame twist (and other possible causes); I proposing criteria for acceptable levels of diagonal wheel unloading, or for bogie frame twist; and I proposing proportionate measures for identifying, and then managing, unacceptable diagonal wheel unloadings (paragraphs 153(d) and 155(b)). 	<p>ORR has reported that RSSB has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>3 02/04/2014 11/2015</p> <p>Freight train derailment at Angerstein Junction</p> <p>Status: Implemented</p>	<p>The intention of this recommendation is to ensure that the control of derailment risk in sidings takes account of the possibility of exporting that risk onto running lines.</p> <p>Network Rail should review the processes by which track geometry is managed in sidings and connections on the approach to running lines, in order to identify and implement any</p>	<p>ORR has reported that Network Rail has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>

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RAIB)**

changes necessary to ensure that the export of risk to running lines is effectively managed. This should include consideration of how dynamic track geometry is assessed on infrequently used lines (paragraphs 153(a) and 153(b)).

4 02/04/2014 11/2015
Freight train derailment at Angerstein Junction
Status: Implemented

The intention of this recommendation is to review whether the historic track twist measurement base (3 metres) is still a sufficient control for track twist risk applicable to current rolling stock. The RAIB notes that this recommendation could be informed by the joint industry action taken in response to ORR's letter of 5 December 2014 (paragraph 163).

ORR has reported that Network Rail has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

Network Rail should liaise with RSSB to review whether the existing 3 metre measurement base used for identification of track twist is sufficient for managing the derailment risk applicable to rolling stock currently operating on Network Rail infrastructure. If found to be inadequate or insufficient, Network Rail should:

I update its process for assessing track twist by the inclusion of additional and/or alternative measurement bases; and

I implement a time-bound plan to apply the new process to all of its infrastructure (paragraphs 153(b) and 155(a)).

5 02/04/2014 11/2015
Freight train derailment at Angerstein Junction
Status: Implemented

The intention of this recommendation is to encourage use of available monitoring data from wheel impact load detection systems, such as Gotcha, to inform rolling stock maintenance.

ORR has reported that Network Rail has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

Network Rail should review the potential to use wheel impact load detection system data to provide information about possible defects, such as uneven wheel loading or uneven load distribution, relating to specific wagons. The review should include consideration of how this information could be used to improve control of overall derailment risk (such as identifying the need for entities in charge of maintenance to check the condition of suspect wagons and take appropriate remedial action). Network Rail should seek inputs from relevant entities in charge of maintenance as part of the review. If justified by the review, Network Rail should implement track side and reporting processes needed for collecting and disseminating this information (paragraphs 153(d) and 155(b)).

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6 02/04/2014 11/2015

Freight train derailment at Angerstein Junction

Status: Implemented

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The intention of this recommendation is to ensure that the distribution of loads in wagons, including partly loaded wagons, is controlled in a manner compatible with wagon and track characteristics. The RAIB notes that action taken in response to this recommendation could be informed by work undertaken as part of the railway industry's response to the ORR's letter of 5 December 2014 (paragraph 163).

RSSB, in consultation with industry, should review the risks associated with the uneven loading of wagons, with particular reference to partial loads, and propose any necessary mitigation, so that the extent of permitted load imbalance is effectively controlled (paragraphs 153(c), 154(a), 154(b) and 155(b)).

Summary of current status (based on ORR's report to RAIB)

ORR has reported that RSSB has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.