Recommendation(s) Status: Derailment at Oubeck North near Lancaster

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 latest report from the relevant safety authority or public body)
1 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Implemented	Network Rail should ensure that modifications are made to intercept the field drain on Network Rail property and discharge via a carrier drain into an engineered drainage system with sufficient capacity to handle the additional flow (paragraphs 113 and 156).	Network Rail has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.
2 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Non-implementation	Network Rail should identify priority cutting slopes prone to earthflow failure due to drainage flows from neighbouring property. These should be prioritised according to their likelihood of failure (eg on the basis of catchment area, slope angle and history of previous failures) and the consequence on the safe operation of trains. For priority cuttings, Network Rail should ensure that it understands all associated drainage arrangements, that they are adequate and that their functionality is maintained. Alternatively they should isolate their land from the effects of such drainage flows (eg by implementing engineered collector drains) (paragraphs 111 and 158).	Network Rail have carried out a review in response to this recommendation. Network Rail initialy proposed no further action. Subsequent to this Network Rail have undertaken a programme of work to address many of the issues identified in this recommendation.
3 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Implemented	Network Rail should review their overall earthwork and drainage examination regime to introduce the five actions listed below: a. Identify whether reliance is placed on examinations additional to those described in NR/SP/CIV/065 in managing the risk associated with cuttings. Network Rail should ensure that any additional examinations are clearly identified, undertaken at the correct periodicities and that formal arrangements exist for reporting findings back to the responsible earthworks and drainage engineer (paragraphs 93 and 159). b. Ensure that, as far as practicable, the actions required to identify precursors to cutting failures can be completely and correctly executed (paragraphs 99 and 159). c. Ensure that proper allowance is made in any risk assignment to compensate for any lack of accessibility, inadequate information or, the inability to fully complete an examination due to any practical or other constraints (paragraphs 100 and 159). d. Ensure a consistent and suitable approach to evaluation of the findings from examinations (paragraphs 102 and 159). e. Introduction of a requirement that a percentage of all marginal and serviceable cuttings are subjected to independent spot checking (paragraphs 103 and 159).	Network Rail has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on latest report from the relevant safety authority or public body)
4 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Implemented	RSSB should review the load cases representing credible accident scenarios in Railway Group Standard GM/RT 2100 to ensure that appropriate combinations of lateral, vertical and longitudinal loads experienced at the coupler head are included in the design of trains. This should include a review of the 'jack-knife' load case arising from a derailed unit coupled to a railed unit (paragraphs 149 and 161).	RSSB has reported carrying out research into the forces generated by crash scenarios. However, after consulting with industry parties, it was concluded that there was no case to extend this research to meet the intent of the recommendation. The RAIB is concerned that an opportunity to understand the loads applied to coupler heads has not been pursued by the railway industry.
5 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Non-implementation	Alstom should ensure that the design of the coupler lateral bump stop mounting arrangements for the Class 175 and 180 trains is reviewed against load cases from 'credible accident scenarios', including longitudinal loads experienced at the coupler head (paragraph 149 and 161).	Alstrom rejected this recommendation on the basis that the attachment was designed to meet the loads specified in Railway Group Standards GM/RT2100 Issue 2 and that there is no case for improving the design. The RAIB has raised its concern that when detached the bump stop presents a derailment risk. The failure of the bump stop on a Class 175 unit was also observed at the collision at Llanboidy level crossing in December 2011.
6 04/11/2005 19/2006 Derailment at Oubeck North near Lancaster Status: Non-implementation	Angel Trains Limited should ensure that any modifications to the design made by Alstom in respect of Recommendation 5 above shall, where reasonably practicable, be implemented in the Class 175 and 180 trains that are in their ownership (paragraph 149 and 161).	Alstom has reported that it intends to take no action in response to this recommendation (see recommendation 5).