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15 February 2013

Ms Carolyn Griffiths
Chief Inspector of Rail Accidents
Rail Accident Investigation Branch
Block A, 2nd Floor
Dukes Court
Dukes Street
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Dear Carolyn

Accident at Falls of Cruachan, Argyll 6 June 2010

I write to provide an update¹ on the consideration given and action taken in respect of recommendation 1 addressed to ORR in the above report, published on 28 July 2011.

The annex to this letter provides details of the consideration given/action taken and reports that Network Rail is taking action to implement² the recommendation.

ORR is content with the actions and timescales and will monitor delivery. If, in doing so, we become aware of an inaccuracy in what we have reported we write to RAIB again.

We expect to publish this response on the ORR website on 1 March 2012.

Yours Sincerely

Chris O'Doherty

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

² In accordance with Regulation 12(2)(b)(i)



Recommendation 1

The intention of this recommendation is to ensure that for earthworks in Scotland sufficient vegetation clearance is undertaken to allow adequate examination and evaluation of slopes to determine their condition.

In respect of earthworks in Scotland, Network Rail should review its existing arrangements for the clearance of vegetation to enable examinations and evaluations of earthworks to be carried out.

If this review indicates that the current arrangements do not enable a sufficient understanding of their condition of earthworks to be obtained, and if there is no alternative means of assessing the risks associated with such slopes, Network Rail should define the extent of vegetation clearance that is required to enable examinations and evaluations to be carried out, and then implement a strategy for achieving it.

Brief Summary on what was previously reported to RAIB on 17 July 2012

1. Network Rail in its response on 23 December 2011 advised that:

The impact of vegetation on examination activities in Scotland & nationally has been assessed and the process and plans for de-vegetation to facilitate earthwork examinations has been strengthened and briefed to all parties.

The earthworks database system has been upgraded to capture sites requiring vegetation clearance and report incomplete examinations due to vegetation.

Controls have been added to avoid the scoring of incomplete examinations.

Clearance of vegetation to allow examination in accordance with NR/L3/CIV/065 [Examination of Earthworks] is carried out by a vegetation contractor. This is then followed by an earthwork examination by the CEFA [Civil Engineering Framework Agreement] examination contractor.

2. ORR in consideration of Network Rail's response on 23 December 2011 concluded the response did not provide enough detail on what was strengthened and how it was briefed to all parties.

3. ORR met with Network Rail Scotland Route on 15 May 2012 to discuss this recommendation. At the meeting Network Rail described its revised arrangements for ensuring that, where necessary, slopes are sufficiently de-vegetated to facilitate proper examination of earthworks and it plans to monitor the effectiveness of the revised arrangements.

4. At the time of the meeting the de-vegetation in accordance with the revised arrangements had yet to begin.

5. Network Rail agreed to formally provide ORR with appropriately detailed clarification of how the process and plans for de-vegetation to facilitate earthworks examinations has been strengthened and briefed to all parties.

Update

Summary

6. In summary, Network Rail:

- has put in place arrangements for identifying those slopes which have not been examined due to the presence of vegetation, and
- put in place arrangements for de-veg to be carried out to the satisfaction of their earthworks examination contractor.

Actions taken or being taken to address the recommendation

7. ORR met with Network Rail on 21 August 2012 to inspect their arrangements for ensuring slopes are sufficiently clear of vegetation to enable proper examination. That meeting was followed up with site inspections in the company of Network Rail and the CEFA examination contractor (Amey) on 30 August 2012 to inspect those arrangements being implemented.

8. ORR findings were:

- Network Rail applies filters to the 'JBA Database' to identify where examinations have been reported by Amey as "incomplete" due to the presence of vegetation.
- When Amey reports that an examination is incomplete due to the presence of vegetation, this is typically due to vegetation physically obstructing access to the slope, not vegetation obscuring visibility of the slope to the extent that the slope cannot be examined as described in NR/L3/CIV/065 - Examination of Earthworks.
- The de-vegetation of the slopes inspected on 30 August 2012, had been carried out to the extent necessary to facilitate the slopes to be traversed and observed in the manner described in NR/L3/CIV/065 - Examination of Earthworks – paragraph 9.1:

In undertaking an examination, the Examiner shall traverse the Earthwork from the toe to crest at a maximum interval of 2 chains (44 yards). Where safe to do so, observations of the Earthwork shall be made from both the toe and the crest. Where parts of the slope are too steep to traverse or are unsafe to access, observations of those parts shall be made from the opposite side of the tracks.

- Slope examiners are not normally present when the de-vegetation is carried out.
- When specifically questioned, Amey was content that effective arrangements were in place for slopes to be de-vegetated if and when Amey reported to Network Rail that an examination was incomplete due to the presence of vegetation. Furthermore Amey was content that the extent of de-vegetation being carried out by Network Rail was sufficient to allow Amey to examine slopes in compliance with NR/L3/CIV/065 - Examination of Earthworks.
- Network Rail is carrying out some, albeit limited, informal monitoring of the activities of Amey.
- Contrary to what Network Rail had stated, it was found to be possible for the JBA database to show an examination to be "complete" and for a score to be allocated, whilst at the same time showing a "reason for incomplete examination: de-veg required".

- This anomaly was subsequently explored by Network Rail who reported that that it could only occur if data was entered in an unusual and un-intended way.
- Network Rail undertook to work with JBA to ensure that the data entry validation process is sufficiently robust. There was no evidence of examinations being reported as incomplete due to the presence of vegetation, and simultaneously recorded on the database as complete / scored.

ORR Decision

9. 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 actions and timescales and will monitor delivery. If, in doing so, we become aware of an inaccuracy in what we have reported we write to RAIB again.

Status: *Implemented*