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13 February 2020

Mr Andrew Hall
Deputy Chief Inspector of Rail Accidents
Cullen House
Berkshire Copse Rd
Aldershot
Hampshire GU11 2HP

Dear Andrew,

RAIB Report: Collision between a train and a tractor at Oakwood Farm User Worked Crossing, Knaresborough on 14 May 2015

I write to provide an update[1] on the action taken in respect of recommendation 3 addressed to ORR in the above report, published on 28 April 2016.

The annex to this letter provides details of the action taken regarding the recommendation. The status of recommendation 3 is **'implemented'**.

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

We will publish this response on the ORR website on 14 February 2020.

Yours sincerely,

Oliver Stewart

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

Recommendation 3

The intent of this recommendation is to reduce the risk from the introduction of infrastructure equipment onto the railway network.

Network Rail should review the robustness of its processes for accepting new equipment and technology onto the railway, including particular consideration of the following:

a) definition and adherence to an appropriate level of safety assurance;

b) the early involvement of human factors expertise, where appropriate, throughout the product's introduction;

c) the risk assessment processes applied to the new equipment itself and the infrastructure into which it is to be integrated;

d) definition and monitoring of trials, implementation of any resulting improvements, and the roll-out of the product to other locations;

e) maintenance of a hazard record for the life-cycle of the product; and

f) a process for undertaking regular audits to check the implementation of its product introduction processes and correcting any identified shortcomings (paragraph 116b).

It should then, where appropriate, produce a time bound plan for the amendment of the standard.

ORR decision

1.   Network Rail has carried out a detailed risk review of Oakwood Farm UWC, including liaison with the authorised user. A programme of improvements was put together following the review and have now been completed.

2.   After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:
- taken the recommendation into consideration; and
- taken action to implement it

Status: Implemented.

Previously reported to RAIB

3.   On 27 April 2017 ORR reported that Network Rail's only response to this recommendation contained virtually no information about how they were go about addressing it and did little more than repeat the wording of the recommendation. We wrote to them requesting greater detail on how they were going to address the recommendation, supported by a time-bound plan and chased twice for a response.

Update

4.   On 24 October 2018 Network Rail provided the following response and closure statement:

> *Network Rail will review the robustness of its processes for accepting new equipment and technology onto the railway, including particular consideration of the following:*
>
> *a) definition and adherence to an appropriate level of safety assurance;*
> *b) the early involvement of human factors expertise, where appropriate, throughout the product's introduction;*
> *c) the risk assessment processes applied to the new equipment itself and the infrastructure into which it is to be integrated;*
> *d) definition and monitoring of trials, implementation of any resulting improvements, and the roll-out of the product to other locations;*
> *e) maintenance of a hazard record for the life-cycle of the product; and*
> *f) a process for undertaking regular audits to check the implementation of its product introduction processes and correcting any identified shortcomings.*
>
> *The review will be undertaken in accordance with Network Rail's standards change process and will be issued by the target date below.*
>
> ***Actions undertaken***
>
> *The Report and recommendation above has been reviewed along with recommendations from Bryn Station, Pratts Loewr, and has prompted revision of NR/L2/RSE/100/05.*
>
> *Changes to this standard include the following to address the recommendations made:*
>
> *a) definition and adherence to an appropriate level of safety assurance*
>
> *The scope of NR/L2/RSE/100/05 has been extended to include assessment against "Rail Industry Readiness Levels" which strengthens the process and includes assessment of reliability readiness levels and when combined with the previous requirements is considered to assure products to specified levels, including the safety element.*
>
> *b) the early involvement of human factors expertise, where appropriate, throughout the product's introduction;*
>
> *The assurance process cannot determine the exact timing of the involvement of human factors expertise but does require assurance that adequate consideration has been taken of the interdisciplinary co-ordination when reviewing the product development against the specified requirements. The guidance provided to product reviewers has been revised to strengthen this consideration.*

c) the risk assessment processes applied to the new equipment itself and the infrastructure into which it is to be integrated;

The assurance process was reviewed and the assurance processes of NRAP and SRP which demand and define the safety case justification for implementation of new products is considered robust. No changes were proposed for this process as no evidence of systematic errors could be identified. The application of this process is however a human activity and the competence and actions of individuals in the process is subject to management and review as a business as usual activity.

d) definition and monitoring of trials, implementation of any resulting improvements, and the roll-out of the product to other locations;

The intent of trials has been strengthened in NR/L2/RSE/100/05 section 10, with clarity in the escalating nature of trials in simulated or non-operational environments prior to operational trials and the learning expected from each of these activities.

Details of controls restricting the use of operational trials is clarified to define the success criteria, and is subject to NRAP approval.

e) maintenance of a hazard record for the life-cycle of the product;

A record of all product approval applications, reviews and supporting information is held by Network Rail product acceptance specialists, which includes the hazards and risks identified in the product safety case details which is held for the life of the product and is subject to revision where changes to the product are proposed. This record has restricted access and is not a general hazard directory of to control rail operations, as a separate directory is held for that purpose.

f) a process for undertaking regular audits to check the implementation of its product introduction processes and correcting any identified shortcomings.

The implementation of products is monitored by the individuals in asset management roles, and the professional heads of the technical discipline's that introduce the product. The actions taken in respect to this investigation highlight this process, as the product acceptance for Power Operated Gate Openers was withdrawn and contingency plans implemented to manage the reliability issues identified. This involved re-development of the product from the experiences during the implementation processes. This review has highlighted that the monitoring and management procedures are robust.

Closure Statement

Network Rail has reviewed the robustness of its processes for accepting new equipment and technology onto the railway.

The review was undertaken in accordance with Network Rail's standards change process by previous recommendation holder B Daley, as described in action plan and progress report.

The action plan to update NR/L2/RSE/100/05 has been completed, with issue of NR/L2/RSE/100/05 issue 3 in Dec 2017, with compliance date of March 2018.

Previously reported to RAIB

Recommendation 3

The intent of this recommendation is to reduce the risk from the introduction of infrastructure equipment onto the railway network.

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a) definition and adherence to an appropriate level of safety assurance;

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d) definition and monitoring of trials, implementation of any resulting improvements, and the roll-out of the product to other locations;

e) maintenance of a hazard record for the life-cycle of the product; and

f) a process for undertaking regular audits to check the implementation of its product introduction processes and correcting any identified shortcomings (paragraph 116b).

It should then, where appropriate, produce a time bound plan for the amendment of the standard.

ORR decision

1.   Network Rail's only response to this recommendation contains virtually no information about how they will go about addressing it and does little more than repeat the wording of the recommendation. We have written to them requesting greater detail on how they will address the recommendation, supported by a time-bound plan and have chased twice.

2.   After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:
   - has not provided a sufficient response setting out how they will address the recommendation, nor provided a time-bound plan for it to be delivered.

Status: Insufficient response. **ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.**

Information in support of ORR decision

3.   On 30 August 2016 Network Rail provided the following initial response:

Network Rail will review the robustness of its processes for accepting new equipment and technology onto the railway, including particular consideration of the following:

a) definition and adherence to an appropriate level of safety assurance;

b) the early involvement of human factors expertise, where appropriate, throughout the product's introduction;

c) the risk assessment processes applied to the new equipment itself and the infrastructure into which it is to be integrated;

d) definition and monitoring of trials, implementation of any resulting improvements, and the roll-out of the product to other locations;

e) maintenance of a hazard record for the life-cycle of the product; and

f) a process for undertaking regular audits to check the implementation of its product introduction processes and correcting any identified shortcomings. The review will be undertaken in accordance with Network Rail's standards change process and will be issued by the target date below.

Previously reported to RAIB