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3 February 2022

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 tractor at Hockham Road user worked crossing, near Thetford on 10 April 2016

I write to provide an update¹ on the action taken in respect of recommendation 2 addressed to ORR in the above report, published on 14 March 2017.

The annex to this letter provides details of actions taken in response to the recommendation and the status decided by ORR. The status of recommendation 2 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 4 February 2022.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Oliver Stewart', written in a cursive style.

Oliver Stewart

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

Recommendation 2

The intent of this recommendation is to improve the way in which new equipment is introduced to existing signalling locations, to reduce the risk of operating errors caused by inadequate competence.

Network Rail should review and improve its processes for introducing signalling equipment where the user interface has significantly altered (eg the replacement of NX panels with VDU-based workstations). This review should include the selection, training and management of staff who operate the new equipment, so that they achieve and maintain an appropriate level of competence

ORR decision

1. On 20 July 2018 Network Rail provided a closure statement for recommendation 2. ORR considered that although the closure statement provided sufficient evidence on competence-related aspects of the recommendation, it did not address the necessary wider human factors assessments which should be in place before such a change, along with the checks to ensure the assessments have been done, in order to deliver an adequately usable, safe interface.
2. Network Rail's internal investigation identified a number of actions around the ergonomic design of new equipment, including an action on management of ergonomic recommendations through creation of a quarterly tracking process. We considered that the human factors aspects of the RAIB recommendation would be adequately covered by the Network Rail internal report action, and once evidence had been provided it had been addressed, we would be in a position to consider the RAIB recommendation to have been implemented.
3. In addition to the written submissions received from Network Rail, ORR has been monitoring progress in this area by means of regular (quarterly) liaison meetings with Network Rail's Ergonomics Team. This has allowed us to probe emerging findings from its review and engage in the shaping of identified next steps. We have begun to see outputs of Human Factors input to the design and commissioning of new equipment and are satisfied that there is a suitable process.
4. Network Rail concluded that the internal review action could be closed, on the basis:
 - Ergonomics issues are managed formally using existing controlled processes.
 - All ergonomics issues receive regular review, with checks at least every three months.
 - Project, route and Network Rail Ergonomics team activities and accountabilities are clear.
 - Emerging considerations and concerns are discussed at weekly ergonomics assurance manager meetings that are designed to enable proactive risk management and to promote knowledge sharing.
 - Additional proactive processes are being trialled to progressively increase visibility and control.

5. We conclude that on that basis, Network Rail has taken the human factors as well as competence aspects of the recommendation into consideration. We plan to carry out some basic assurance and sampling work on human factors integration processes in a small sample of projects.

6. 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
- Has taken action to implement it

Status: Implemented.

Previously reported to RAIB

7. On 13 March 2018 ORR reported the following:

In their response to the recommendation, Network Rail have focused on the staff competency and management of staff aspect of the introduction of new signalling equipment. They have not mentioned the selection of staff.

ORR agree that this is an important factor, but Network Rail need to address the much wider scope of the recommendation which concerns reviewing and improving processes for introducing signalling equipment where the user interface has significantly altered. We have written to Network Rail asking them to address this wider issue.

Update

8. On 20 July 2018 Network Rail provided the following closure statement:



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9. Network Rail state in summary the following:

The initial requirement to train staff on new equipment is mandated through the application of the CDM regulations and the provision of training. This is delivered as part of the project with work packages in the GRIP process. The content of the training is managed through the Operations Capability Development Group for larger schemes and the Route System Review Panel for smaller schemes. This involves the presentation of training material and the outputs from pilot courses to demonstrate that the training is appropriate and meets the needs of the Signaller. The training is only on the use of the equipment and does not cover their competence to operate signalling equipment.

The signalling competence is attained through following the National Operating Procedure 2-06. Each signalling location or panel or workstation will have a Signal box Training Plan. The content and production of the Training Plans are covered in National Operating Procedure 2-17. The procedure also covers the review of the changing plan annually or when changes are made to the location. This makes sure that those starting at a location after the equipment has gone live will receive training on the current functionality. The additional information for the Training Plan will be taken from the conversion training material. The training is then managed as business as usual activities through National Operating Procedure 2-06. This includes observation of the equipment being operated and an Annual Competence Conversation. During the Annual Competence Conversation the line manager and signaller or SSM will review all their evidence in terms of operating signalling equipment and the use of the systems at each location.

The technical training is supported by a non-technical skills element which covers the ability of a signaller to work within their environment. To assist with the training a signalling simulation standard has been developed to set the required specification to deliver the training needed. NR/L2/OPS/254 Module 01 Signalling Simulation Operational Specification provides the required functionality. At any stage in the process it may be identified that a signaller is not meeting the required standard. There are mechanisms to deal with this in the processes above such as a Development Action Plan being raised or the signaller being placed onto the Additional Monitoring & Support process.

Ultimately it is the line managers decision to determine if someone is competent and if there are any doubts there are processes in place to bring them up to the correct level of competence. There is a mechanism to deliver the training equipment and materials is in place where signalling equipment interfaces have significantly changed. The process to achieve and maintain competence is in place and meets the intent of this recommendation to cover selection and training. This also covers the requirement to manage their ongoing competence so they are able to maintain an appropriate level of competence

Previously reported to RAIB

Recommendation 2

The intent of this recommendation is to improve the way in which new equipment is introduced to existing signalling locations, to reduce the risk of operating errors caused by inadequate competence.

Network Rail should review and improve its processes for introducing signalling equipment where the user interface has significantly altered (eg the replacement of NX panels with VDU-based workstations). This review should include the selection, training and management of staff who operate the new equipment, so that they achieve and maintain an appropriate level of competence

ORR decision

1. In their response to the recommendation, Network Rail have focused on the staff competency and management of staff aspect of the introduction of new signalling equipment. They have not mentioned the selection of staff.
2. ORR agree that this is an important factor, but Network Rail need to address the much wider scope of the recommendation which concerns reviewing and improving processes for introducing signalling equipment where the user interface has significantly altered. We have written to Network Rail asking them to address this wider issue.
3. 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
 - but has not provided a sufficient response setting out how each part of the recommendation will be delivered.

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

Information in support of ORR decision

4. Network Rail provided the following initial response on 30 January 2018:

The initial requirement to train staff on new equipment is mandated through the application of the CDM regulations and the provision of training. This is delivered as part of the project with work packages in the GRIP process.

The content of the training is managed through the Operations Capability Development Group for larger schemes and the Route System Review Panel for smaller schemes. This involves the presentation of training material and the outputs from pilot courses to demonstrate that the training is appropriate and meets the needs of the Signaller.

The training is only on the use of the equipment and does not cover their competence to operate signalling equipment. The signalling competence is attained through following the National Operating Procedure 2-06.

Each signalling location or panel or workstation will have a Signal box Training Plan. The content and production of the Training Plans are covered in National Operating Procedure 2-17. The procedure also covers the review of the changing plan annually or when changes are made to the location. This makes sure that those starting at a location after the equipment has gone live will receive training on the current functionality. The additional information for the Training Plan will be taken from the conversion training material.

The training is then managed as business as usual activities through National Operating Procedure 2-06. This includes observation of the equipment being operated and an Annual Competence Conversation. During the Annual Competence Conversation the line manager and signaller or SSM will review all their evidence in terms of operating signalling equipment and the use of the systems at each location.

The technical training is supported by a non-technical skills element which covers the ability of a signaller to work within their environment.

To assist with the training a signalling simulation standard has been developed to set the required specification to deliver the training needed. NR/L2/OPS/254 Module 01 Signalling Simulation Operational Specification provides the required functionality.

At any stage in the process it may be identified that a signaller is not meeting the required standard. There are mechanisms to deal with this in the processes above such as a Development Action Plan being raised or the signaller being placed onto the Additional Monitoring & Support process. Ultimately it is the line managers decision to determine if someone is competent and if there are any doubts there are processes in place to bring them up to the correct level of competence.

There is a mechanism to deliver the training equipment and materials are in place where signalling equipment interfaces have significantly changed.

The process to achieve and maintain competence is in place and meets the intent of this recommendation to cover selection and training. This also covers the requirement to manage their ongoing competence so they are able to maintain an appropriate level of competence.