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9 June 2014

Ms Carolyn Griffiths
Chief Inspector of Accidents
Cullen House
Berkshire Copse Road
Aldershot
Hampshire GU11 2HP

Dear Carolyn

RAIB report: Dangerous occurrence at Lindridge Farm user worked crossing, near Bagworth, Leicestershire

I write to report[1] on the consideration given and actions taken in relation to the recommendations addressed to ORR contained in the above report which was published on 29 July 2013.

The annex to this letter provides the detail of the consideration and actions where recommendation 4 has been implemented and recommendations 1, 2, 3 and 5 are in progress.

We expect to update you on recommendations 1, 2, 3 and 5 by 30 September2014. We do not propose to take any further action in respect of recommendation4 unless we become aware of an inaccuracy in which case I will write to you again.

We expect to publish this response on our website on 21 June 2014.

Yours sincerely

Chris O'Doherty

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

Initial consideration by ORR

1.   All five recommendations were addressed to ORR when the report was published on 29 July 2013.

2.   After considering the recommendations ORR passed recommendation all five to Network Rail asking it to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below.

Recommendation 1

The intent of this recommendation is to require signalling re-control projects to establish what signalling source records exist for the area being re-controlled, how up-to-date they are and whether they are correlated. If signalling source records are not available, the project's scope should explicitly include activities at its start to produce them so they are available to designers and checkers for their design work, testers for testing the design prior to it being commissioned, and to the maintainers afterwards.

Network Rail should revise its project management processes and company standards to require that signalling re-control projects (ie projects transferring the control of signalling from one location to another when the interlocking, trackside signalling equipment and infrastructure are unchanged) identify the signalling source records that are needed for the design, checking and testing of these works. These projects should then be required to include activities within their scope of work to obtain these signalling source records, including correlating, updating or producing records as necessary

Actions taken or being taken to address the recommendation

3.   On 1 November 2013 Network Rail provided the following information:

In response to this recommendation (and the Formal Investigation recommendations) Network Rail has reviewed the requirements for control of source records and believes that the requirements for suitable and sufficient management of source records should not just be limited to re-control projects as suggested by this recommendation. Network Rail therefore has the requirements in place in the latest contract requirements that we engage our suppliers with.

Network Rail's current contract requirements (technical) for any projects (not limited to re-control) require:

- *The Contractor shall rectify records deficiencies and redraw missing records as described in the Technical Workscope Part 1 (Contract Specific Information).*
- *The Contractor shall also review the Network Rail records deficiency register available from the Employer's Representative to ascertain whether there are any other known deficiencies or missing records in the required source documents.*
- *The Contractor shall then agree with the Employer's Representative which further deficiencies shall be rectified as part of the Contract.*
- *The Contractor shall notify the Employer's Representative of any record deficiencies rectified by them.*
- *Where the Contractor has not rectified a known record deficiency they shall return records to NRG with a statement detailing how the agreed outstanding deficiency has been recorded on the maintenance copies for the project.*

- *The Contractor shall note any records that are issued with a 'health warning' and agree an action plan for their use with the Employer's Representative, prior to the use of such records.*
- *Health warnings shall not be removed unless all problems are resolved and the Approval and Issue Record (AIR) sheet or full correlation box is completed along with the correction and update of the records.*
- *The Contractor shall review the source documents prior to ordering.*
- *The Contractor shall not hold master source records for information purposes only.*
- *The Contractor shall submit requests for authorisation to obtain records and other documentation using the appropriate standard forms and shall include the Network Rail project reference, Network Rail project manager's name and the anticipated return date. Entries such as 'all documents' will not be sufficient and will not be authorised.*

Additionally standard NR/L2/SIG/11201/ModA7 'Signalling Design: Module A7 - Correlation of Signalling Records' gives clear guidance to projects, designers and Route Asset Managers on the importance of accurate records. This standard also specifies the process and requires the production of a Safety Plan if the accuracy of the records cannot be confirmed.

Network Rail in response to this recommendation has drafted an industry briefing that will be used to provide reminder guidance to Designers and Project Engineers of the established requirements above, with a completion date of 31 March 2014.

ORR decision

4.   The ORR view is that the intent of the recommendation is for Network Rail to have control of signalling source records that can be provided to the contractor, however the Network Rail response appears to put the responsibility on the contractor. ORR met with Network Rail on 9 December 2013 and informed Network Rail of our concerns that although Network Rail has stated that it has the requirements in place it does not specify in its response how it will place requirements on contractors for new projects. Network Rail agreed to provide revised wording for this recommendation to provide a more specific response.

Status: In progress. We expect to update RAIB by 30 September 2014

Recommendation 2

The intent of this recommendation is to provide Network Rail SDG designers and checkers with a way of working which will remove the possibility of incorrect track circuit names being drawn on a signalling or scheme plan during its production, and then missed during the checking process. This way of working could be implemented in the software used by designers or by procedure. It is equally applicable to conceptual work (such as new designs) and non-conceptual work (such as the redrawing of an existing design).

Network Rail should, in consultation with its principal signalling contractors, review the ways of detecting and addressing incorrect track circuit names for all types of signalling or scheme plan production. The review should consider what manual or automatic methods can be used by designers and checkers. The findings of the review should then be implemented by means of a time bound programme for changes to the tools and mandated design processes that cover this activity.

Actions taken or being taken to address the recommendation

5.   On 1 November 2013 Network Rail provided the following information:

The production of a numbering grid as required by standard NR/L2/SIG/11201/ModA2 'Minimum Requirements of Design Details' is a suitable manual process mitigation against the mislabelling that occurred during the design process.

An industry briefing has been drafted to remind designers of the need for a numbering grid and to include split sections. Guidance on manual checking methods is documented in the Signalling Design Handbook, however, this will also be included in the briefing as a reminder to designers and checkers.

Automatic checking methods are available as part of the ISP 3.0 plan software. This is currently under trial and is due for rollout in March 2014. An update will be provided in March 2014 on the status of the rollout for ISP 3.0 plan software.

ORR decision

6.   Having considered the response from Network Rail we needed confirmation that the briefing had been issued. ORR met with Network Rail on 9 December 2013 where it was agreed that Network Rail would provide ORR with the publication date and content of the briefing.

Status: In progress. We expect to update RAIB by 30 September 2014

Recommendation 3

The intent of this recommendation is to mandate that the position of fixed infrastructure on any new signaller display is correlated to its position on the existing signaller display. By doing this any discrepancies can be identified and the reasons for them understood.

Network Rail should revise its design processes so as to specifically require that the position of fixed infrastructure, shown on any new signaller's display being installed by a project, is correlated to its position as shown on the existing signaller's display that is being replaced. This work should be carried out by staff who are qualified as competent to do correlation, and when a discrepancy is found between the new and existing signaller displays, they should record it and investigate the reason for it. Such an investigation should include a check of the accuracy of associated records, such as signalling or scheme plans, and result in the necessary corrections being made to the design or to the records to resolve the discrepancy.

Actions taken or being taken to address the recommendation

7.   On 1 November 2013 Network Rail provided the following information:

Network Rail do not consider correlation of fixed infrastructure to signallers display to be required as the additional controls outlined in our response to Recommendation 5 will manage the risk.

ORR decision

8.   ORR discussed this recommendation in detail and actions being taken in relation to other recommendations at a meeting with Network Rail on 9 December 2013 and agrees that non-implementation of this recommendation may be valid when we receive confirmation of actions taken in relation to recommendation 5 in this report.

Status: In progress. We expect to update RAIB BY 30 September 2014

Recommendation 4

The intent of this recommendation is to improve the controls for deferring test logs before a signalling system is commissioned. It calls for the risk to safety, design and functionality to be assessed when deferring an issue raised by a tester on the test log. That way all of the implications of not addressing the test log are considered.

Network Rail should revise the controls for managing deferred test logs so that:

- the person calling for the deferral of a test log is required to assess the risk to the safety, design and functionality of the signalling system by not closing the test log, record the outcome of their assessment and state any mitigation measures that need to be put in place before the signalling system can be commissioned; and
- the tester responsible for commissioning the signalling system is required to review the assessment, agree to the deferral of the test log and to check that the suggested mitigation measures are in place, before allowing the signalling system to be commissioned

Actions taken or being taken to address the recommendation

9.   On 1 November 2013 Network Rail provided the following information:

The Testing handbook was updated and issued in June 2012 with a compliance date of 1 December 2012. It was briefed to the industry on two dates – 1st and 8th February 2013 in London.

This update requires a final review of all test logs by the tester-in-charge, which included considering the quantity and severity of the items raised on the test logs prior to entry into operational service.

This final review is required to confirm that all Test Logs comply with one of the following categories:

1) Retested to the satisfaction of a suitably competent Tester and closed
2) Endorsed and closed
3) Deferred (providing the test log item is not unsafe or cannot be mitigated against)
4) The Deferred Test Log Closure Plan has been signed.

Any deferred test logs require an agreed action plan (noted as 4 above). The action plan requires a test log owner, the timescale for closure, the impact assessment and mitigation details, and the rectification action details, which shall include naming the rectification action owner.

On this basis Network Rail considers this recommendation closed

ORR decision

10.   Having considered the responses and the additional information provided by Network Rail, 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

Recommendation 5

The intent of this recommendation is to show a level crossing in the correct place on the signaller's display when telephones are fitted to it. It calls for Network Rail's standards to define who can make the changes to the signaller's display, what information is needed to make the changes and how the changes will be checked afterwards. This recommendation also calls for the change to the level crossing to be recorded in the signalling records, either by updating records such as the signalling plan, or by entering the change in the deficiency register.

Network Rail should have procedures in place that require the signaller's display to be updated in a controlled manner when telephones are being fitted at a level crossing for the first time. The requirements should also include what steps must be taken to record the change to the level crossing in the signalling source records.

Actions taken or being taken to address the recommendation

11. On 1 November 2013 Network Rail provided the following information:

A proposal will be made to institute a control on uncontrolled and unauthorised amendments to Signaller's displays and for Signaller's to report any unauthorised changes, this will be completed by 31 December 2013.

A re-briefing of the requirements contained in standard NR/L2/INI/02009 will be undertaken to reinforce the need for telecoms engineering staff to carry out the Interdisciplinary Reviews and Inter-Disciplinary Check when introducing additional operational infrastructure requiring to be shown on Signaller's displays, this will be completed by 31 December 2013.

Consideration will be given to providing suitable labelling or other means to remind staff that alterations to a signaller's display shall only be undertaken by an authorised and competent person in accordance with signal engineering standards and requirements, this will be completed by 31 March 2014.

The principle of undertaking changes and then recording these as deficiencies is rejected as not being an appropriate risk control measure.

ORR decision

12. ORR was not content that the wording e.g. 'Proposal will be made….' and 'Consideration will be given…' provided assurance that action would be taken. This recommendation was further discussed at a meeting between ORR and Network Rail on 9 December 2013 where it was agreed that Network Rail would provide a more specific response.

Status: In progress. We expect to update RAIB by 30 September 2014.