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4 November 2015



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

Dear Andrew,

RAIB Report: Passenger train collision with trolley at Bridgeway User Worked Crossing, near Shrewsbury

I write to report¹ on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 20 November 2014.

Annex A to this letter provides details of the consideration given/action taken in respect of these recommendations. The status of recommendation 1 is '**Implementation ongoing**'. ORR will advise RAIB when further information is available regarding actions being taken to fully address this recommendation.

The status of recommendations 2 and 3 is '**Implemented**'. We do not propose to take any further action in respect of these recommendations unless we become aware that any of the information provided becomes inaccurate, in which case I will write to you again.

We will publish this response on the ORR website on 9 November 2015.

Yours sincerely,

Andrew Eyles

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

Recommendation 1

The intent of this recommendation is to minimise the potential for the SSOWP paperwork to mislead its users into blocking the wrong line when opting to take only one of two parallel line blockages.

Network Rail should, as part of its planning and delivering safe work project, take account of the arrangements and associated wording for parallel line blockages in the new permit packs to ensure that:

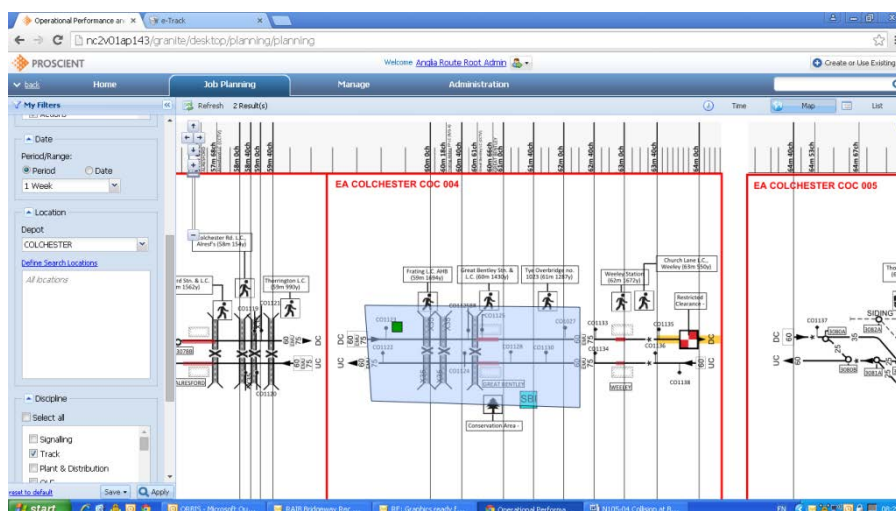
- presentation of the SSOWP documentation is simple and clear with regard to parallel line blockages, particularly in terms of allowing users to identify which line the work is to take place on; and
- designations of 'working' and 'parallel' blockages are verified during production of the SSOWP as referring respectively to the line on which the work is to take place and the adjacent line(s).

Steps taken or being taken to address the recommendation

- In its response of 27 April 2015 Network Rail provided the following information:

Network Rail will introduce a new permit to work system. The new permit will contain a schematic map of the railway infrastructure. This map details important information such as signal numbers and point numbers. The map will assist Safe Work Leaders in identifying their location and in identifying which line is UP and which is DOWN, for instance.

Worksites will be identified and drawn as a polygon on the permit map during the work planning stage. See below screenshot:



The Safe Work Leader will also be involved in the planning of work so that they will be able to make sure they are familiar with risks associated with both the location and the task. All permits are independently authorised before they can be taken live.

The final authorised permit will include the map showing the worksite location, and the permit itself will contain details of any line blockage arrangements that are required, including the details of the protecting signals. The line blockage information allows for all line blockage information, including situations where parallel line blockages are required, to be clearly listed and shown on the permit. The text entry is freeform, so specific reference to parallel line blockages can be recorded as such. See below screen shot example:

ON OR NEAR THE LINE NON-INTRUSIVE PERMIT		36	DRAFT INCOMPLETE			
TITLE: Track Patrol 321 - Down Main Chelmsford						
DESCRIPTION: 1. Inspect as shown on the patrolling diagram where available, starting at the marker plate where fitted 2. Carry out the inspection from the four foot unless shown in the patrolling diagram 3. Identify defects that require action within 4 weeks (M1 or more urgent). 4. Protect safety of the line if it is unsafe for traffic to pass 5. Report defects and repairs as stated in the Track Inspection Handbook-Patroller 6. Mark up all defects and repair on the nearest yellow sleeper to the defect with an 'X' in yellow 7. Repair defects where possible 8. Record all defects and repairs on Basic Visual Inspection Form, NR/L3/TRK/003/TEF 3015 (TEF 3015) during the inspection 9. mark an 'X' every time you report a defect or repair even if there is already an 'X' on the sleeper 10. record repeat defects and repairs on TEF3015 11. Sign TEF3015 and confirm if the inspection has been completed 12. If the inspection is not completed report to Control and SMT(Y). Record the fault number on TEF3015						
STEPS: No Steps Specified						
Primary Location	COLCHESTER - EA COLCHESTER CDY 001		ELR:	CDC		
Start Date & Time:	11-Feb-2015 07:00	End Date & Time:	11-Feb-2015 15:00	Permit Valid to:		
Principal Contractor/Work Deliverer: Network Rail						
Access Point Name:	Frating Level Crossing (59m1694y)	Access OS Grid Ref & Post Code:	1234.1234 CC138RH			
Emergency Contact:	Route Control	Emergency Phone No:	01898 1274698			
Signal Box:	Colchester 01983 128473					
ECRO:	Romford 01785 127462					
Item Number:		From and To Mileage:	59m40ch/62m20ch			
Additional Contact(s):						
Protection Type:						
Safeguarded	Fenced	Separated	Permanent w.s.	Portable w.s.	Human w.s.	Lookout/IWA
Yes	No	No	No	No	No	No
Electrical Protection:	No	Line Blockages:				
Possessions:	No	Worksite Reference Number:	12345			
Line Description:						
Line	Speed (mph)	Open/Blocked				
Up Colchester	60/EMU75	Blocked 1000-1200				
Down Colchester	60/EMU75	Blocked 1200-1300				
Line Blockage Information:						
Line Description	Start and Finish Times (hhmm / hhmm)	Blocking Points	Protecting Signals			
Up Colchester	10:00/12:00	CD1122/CD1130	CD1122/CD1130			
Down Colchester	12:00/13:00	CD1027/CD1123	CD1027/CD1123			

We have an aspiration to include GZAM functionality within the Proscient tool, and are currently undertaking early feasibility and design work. This will ultimately replace the GZAM system, integrating the planning and authorisation of line blockages and enhancing visibility of authorised line blockages on the permit.

2. On 21 August 2015 Network Rail provided the following update to timescales for completion:

The current Programme Plan for the implementation of Planning and Delivering Safe Work extends to March 2016, linked primarily to software availability but also the detailed preparations required for a successful go-live including the lessons learnt from the implementation in East Midlands.

ORR decision

3. 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
- is taking action to implement it by 31 March 2016.

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

Recommendation 2

The intent of this recommendation is to reduce the risk associated with late notice planning of work and planning to deadlines, which can affect decision-making on site due to the availability of information and perceived pressures of work.

Network Rail should review work planning practices and processes at Shrewsbury Maintenance Delivery Unit and optimise the distribution of information for both planners and track workers to carry out their jobs effectively (paragraph 96). This review should consider:

- a. workload and resourcing to enable more strategic and proactive approaches to work planning;
- b. information available to the planner and the COSS in producing and checking SSOWP documentation, including details of the work to be undertaken; and
- c. local practices and assumptions about planning parallel line blockages with respect to national procedures and processes, particularly concerning the designation of 'working' lines and the inferred level of protection on the part of the planner and the COSS.

Network Rail should also determine whether such issues are applicable at other maintenance delivery units and take action as necessary to address any problems identified.

Steps taken or being taken to address the recommendation

4. In its response of 27 April 2015 Network Rail provided the following information:

Re-briefing of Shrewsbury DU staff over required process have already been completed following the incident and the findings of the Network Rail led formal investigation.

A review will be undertaken and the requirements of Network Rail standards and the Planning Process will be reviewed against DU Section practices to identify non adherence to process and address deficiencies accordingly.

A review and audit of the line blockage planning process within all sections of the Delivery Unit will be undertaken and will also cover information and

materials available to staff involved in the planning process together with the review and distribution process for associated paperwork.

Actions already identified include:

- *Review incident detail with reference to the local track and welding sections planning process.*
- *Review required processes against current practises and identify any gaps or deficiencies that may exist, when considering the factors raised in the RAIB recommendation 2a, b, & c.*
- *Develop a briefing pack detailing the required planning process, capturing and addressing any deficiencies identified, whilst emphasising deficiencies that applied on the day and contributed to the incident occurring.*
- *Facilitate a workshop / briefing session with the Shrewsbury Track and Welding Section Managers and Planners to work through the detail and deficiencies that led to the incident.*
- *Re-brief the required planning and SSOWP's process and provisions to Section Managers and Planners.*
- *Re-brief all Controllers of Site safety (COSS) working on the Crewe Shrewsbury route the required SSOWP's checking and delivery process.*
- *Include the planning and SSOWP's process briefing pack in the IME Team Safety Meeting for cascade briefing to all Delivery Unit Sections.*
- *Complete assurance checks to confirm all DU sections adherence to the requirements of the work planning and SSOWP's process.*

A review will be completed to determine whether issues identified with the Shrewsbury work planning process are likely to exist on other Delivery Units. If this is determined to be the case follow up action will be taken via the respective DU leads or appropriate standard owner as applicable.

5. ORR subsequently sought confirmation from Network Rail of any specific milestones for the various stages envisaged to reach the 30 September 2015 completion date, and confirmation that the three specific points identified at recommendation were being addressed.

6. On 8 June 2015 Network Rail provided the following clarification:

As per our initial response we have completed an internal investigation and subsequent review of identified shortfalls that occurred in this instance with the local section planning process, with urgent action taken to address deficiencies identified. Our action plan leading to 30 September 2015 is aimed at formalising the steps taken and ensuring there is clear understanding and an auditable trail to demonstrate the steps taken in order to close out the RAIB recommendation. In response to the request to allocate interim milestones to enable the tracking of progress I have compiled the attached action plan excel spreadsheet which details the action steps that have been identified and the

intended timeline for completion to achieve the September 2015 close out.



Bridgeway RAIB
Action Plan.xls

Regarding the steps taken to consider the three specific points identified in the RAIB recommendation I can respond as highlighted below to the original text in the RAIB recommendations:

Network Rail should review work planning practices and processes at Shrewsbury Maintenance Delivery Unit and optimise the distribution of information for both planners and track workers to carry out their jobs effectively (paragraph 96).

This review should consider:

- a. workload and resourcing to enable more strategic and proactive approaches to work planning;

Shrewsbury DU have adopted a policy that all line blockages for track and support welding section within the sections geographical remit are progressed by the respective Track Section Planner, the aim being to provide a co-ordinated approach in delivering optimum access arrangements and delivery. Each of the Shrewsbury DU Track sections have a Section Planner and Section Administration post holder to deliver this support planning and documentation distribution process, which in light of the numbers of access opportunities that are required each weeks has been assessed as the required level of resource allocation under the Network rail 2bc re-organisation that occurred around 3 years ago. Post incident review of these resource levels have confirmed that Shrewsbury Track section has both of these post filled and both operatives occupying these posts are trained and skilled to a level that provides the necessary support function to a satisfactory level in contrast to the workload seen in this regard each week. Periods of absence for these staff are co-ordinated in the main, but with ability to cross cover internally within the section based on competency and ability of the individuals in question, but also with additional back up support available from other similar roles in other sections based at Shrewsbury. On this basis our assessment of the review was that workload and resourcing were not a significant factor to the occurrence of this incident and that adherence to the adopted section planning and distribution procedure will provide the optimum co-ordinated and pro-active approach to work planning and delivery.

- b. information available to the planner and the COSS in producing and checking SSOWP documentation, including details of the work to be undertaken; and

With the commissioning of Modular Signalling the issue and distribution of new revised line and signalling layout diagrams was initiated by the project, along with other supporting documentation relating to improved safety system lock

out functionality available with this new equipment. However post incident review indicated that distribution of this information had become disjointed on a number of counts and as a result full coverage and availability of a comprehensive and definitive set of planning information was not available to all sections requiring to work on the Crewe to Shrewsbury line (SYC) on which Modular Signalling had been deployed. This was not an issue to the sections involved in this incident, but relates to the Telecoms and Plant functions that support under a hosting arrangement provided by Cardiff Delivery Unit. To address these identified deficiencies relevant support documentation has been distributed to all sections that potentially have cause to work on the SYC, and the information has also been loaded onto a solder held on the Shrewsbury DU shared drive. As a consequence all Section staff wishing to progress access opportunities on the SYC have access to a definitive set of planning reference documentation which removes the opportunity for discrepancies and inaccuracies in planning and checking of Safe System of Work packs (SSOWP).

Additionally an instruction to Section Planners to provide a greater level of detail for the work planned to be delivered in the published SSOW has been issued, which as a minimum needs to include work description, location, mileage and road together with relevant defect references that may also be available dependent upon work type.

- c. local practices and assumptions about planning parallel line blockages with respect to national procedures and processes, particularly concerning the designation of 'working' lines and the inferred level of protection on the part of the planner and the COSS.

The SSOWP's system which is a national Network Rail system affords Section Planners the opportunity to publish supporting information for parallel line blockages on the same SSOW pack to aid both the implementation of a safe system of work in combination with the availability of places of safety when delivering work activities, hence this is not a local practise. In this instance this functionality was being used by the planner to provide the Controller of Site Safety (COSS) with the optimum level of flexibility to deliver the work in the safest possible way with an optimum safe system of work. However there was a lack of understanding on the part of the member of staff undertaking the COSS duties that led to the deficiencies in taking and utilising the access opportunities available to him. As a result upon consideration of review recommendation 2c it is felt that the approach being adopted by the Shrewsbury Track Section adheres to national procedure and process. However this element of the recommendation is still under review with our safety fraternity before a final course of action can be taken during which time the matter has been the subject of a re-briefing to Delivery Unit COSS's as part of the Team Safety Meeting cascade brief with an instruction that if available both line blockages are taken at the same time.

7. On 15 September 2015 Network Rail provided the following clarification regarding the last paragraph of its previous response:

The intention of this part of the response was to confirm that the national system used by the section planner affords the planning of separate line blockages of up and down roads, hence by using this functionality the actions of the section planner were compliant with the national requirements and were not a Shrewsbury local practice. In order to ensure the provisions of the planned SSOW are fully understood by our contingent of COSS staff, which unfortunately was not the case on the night in question; they have been briefed on the structure of the documented plan and that where possible and available they need to take both the line blockages at the same time on the up and down road.

8. On 21 October 2015 Network Rail provided the following closure statement:

Actions taken and completed include the following:

- *As part of the December 2014 IME Team Meeting a review of the incident was completed with the assembled Section Manager and Engineering contingent to gain a cross Delivery Unit understanding of the incident events and contributing factors. A discussions forum led by the IME and HASWA also encompassed these factors to ensure that the required actions declared to the RAIB were fully understood by the Delivery Unit Section leads.*

As evidence Network Rail provided the meeting attendance sheet and agenda.



IME Team Meeting
Agenda 08042015.doc



P1 Shrewsbury IME
mtg.pdf

- *A Delivery Unit action plan was subsequently developed to indicate the timescales of the agreed action plan stages, which was later shared with the RAIB/ORR.*



Bridgeway RAIB
Action Plan.xls

- *As part of the April 2015 IME Team meeting the requirements of the Network Rail Planning process and related standard NR/L2/OHS/019 were re-briefed supported by a Delivery Unit Safety Briefing note that emphasised the requirements for planning emergency work and the management responsibilities for ensuring full understanding and acceptance of the work remit by the designated Controller of Site safety (COSS).*

As evidence Network Rail provided the Delivery Unit 019 Safety Briefing Sheet and flow chart.

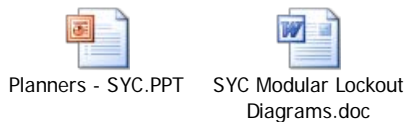


Safety Alert -
Planning Process.doc

- *Planning schematics and supporting Modular Signalling Handbook were distributed to all Delivery unit Section Planners and Section Managers covering the planning and delivery of work on the Crewe to Shrewsbury Line (SYC) to ensure that a standard and full complement of planning support material was available to all concerned.*



- *A supporting Section Planner briefing pack was developed to ensure full understanding of planning work on the Crewe Shrewsbury line with particular emphasis on the requirements associated with parallel line blockages and identification of working lines, as well as clarifying the detail and purpose of the supporting information that had previously been distributed.*



- *As part of the July 2015 IME Team meeting the Section Planner briefing was delivered to the Section Managers to ensure full Line Manager understanding of the requirements and information available to plan work on the SYC, and as a result this formed part of the period cascade briefing to all Delivery Unit staff.*



- *This Section Planner brief was subsequently briefed to all Section Planners at a specially arranged briefing session on Wednesday 23rd September 2015 as indicated by the attached attendance sheet.*



- *Material provision of pigeon holes for the Welding Section to ensure robust distribution of the planned work and safe system of work information to the designated COSS for action and review as per the requirements of the required planning process detailed in Network Rail standard NR/L2/OHS/019.*
- *Assurance checks have been completed with sections working on the SYC since the date of the incident at various stages of the re-briefing and recommendation action plan delivery to ensure their compliance with the required planning and validation process for all programmed activities on the Crewe Shrewsbury line.*

Furthermore the review of the incident completed by the Delivery Unit considered the RAIB's concern that similar issues, that resulted in the Bridgeway UWC incident, could exist at other Delivery Units within Network Rail. Having considered the factors leading to the incident in question it was felt that a number of failures by staff involved to adhere to the requirements of the planning and work delivery process, which combined with the limitations of certain individuals involved, that led to the breakdown and the plan not being delivered in a safe manner. Hence on the basis that these deficiencies on the day were discrete to the Shrewsbury Delivery Unit it is the view that no further action is required in this regard.

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.

Status: *Implemented.*

Recommendation 3

The intent of this recommendation is to strengthen Network Rail's competence management processes for staff in particular circumstances where potential shortfalls in their competence or knowledge might otherwise go unchecked.

Network Rail should, as part of its review of Assessment in The Line:

- a. clarify the management arrangements for seconded staff so that it is clear which part of the organisation is responsible for each element of an individual's competence and knowledge; and
- b. revise its criteria for refresher training following periods of extended absence, particularly where significant changes to work patterns, practices or infrastructure arrangements have occurred during the absence.

Steps taken or being taken to address the recommendation

10. In its response of 27 April 2015 Network Rail provided the following information:

Part A:

As part of the changes to the competence management system (from AiTL to Skills Assessment Scheme) the existing standards have been updated to identify and support the new requirements of the scheme.

These will be further underpinned by detailed guidance that provides support Line Managers and takes into account the requirements as written in the standard.

A specific clause has been added to reflect the requirement to identify those people who are responsible and the scope of who it affects (including temporary and seconded employees). (Example shown below)

Following review and approval of these documents the content will be briefed to the business and published as part of the business change process from May 2015 onwards.

Establishing individual and team competence requirements

Line Managers are accountable for identifying each individual within their teams for whom they take responsibility in terms of initial and ongoing training, assessment and development activities.

This includes:

- Permanent team members;*
- Seconded team members;*
- Temporary staff (such as those on fixed term contracts etc.).*

Note: The 'Red Requirement' means that no variation can be submitted or approved

In support of this additional step the verification process (also now contained within NR/L3/CTM/306) includes checking that the business has a process in place to identify members of their teams:

Processes and systems to support the activities

The verifier/auditor needs to see evidence of what processes and systems have been used to support the initial and continuous training, assessment and development activities.

This includes:

- Identification of team members*

Are there arrangements in place to, identify all members within the team where competence assurance activity requires to be completed – (this is to include those who are permanent and/or temporary team members – such as those on Fixed Term Contracts)

The following actions have been undertaken to date:

- 1. NR/L3/CTM/306 Competence Assurance: - Assessment in the Line (AiTL) has been updated to reflect the requirements of the scheme
NR/L3/CTM/306 Competence Assurance: - Skills Assessment Scheme.*
- 2. The Standard is currently undergoing Peer Review by business representatives across all function.*

The following actions will be completed as part of the ongoing process:

1. *On conclusion of Peer Review the document will go through final amendment and update to confirm that the content is adequate for business use*
2. *This standard will be subject to business and function approval via the CTM Standards Steering Group*
3. *The standard will be previewed on the Standards Webpage in May 2015 for the Business to work to and a TNC drafted, submitted and approved against the old version.*
4. *The standard will be formally published in September 2015 in line with Business processes.*
5. *Awareness and Technical briefing will be drafted to explain the key changes to the standard, the process and the key requirements and be available to the business on preview of the standard.*
6. *Additionally NR employees will be briefed on the changes by the standards change briefing from May 2015 onwards*

Closure of Part A is estimated for October 2015 in line with the Skills Assessment Scheme 'Activation' (Go-Live) + 1 month post formal publication of the Standard

Part B:

As part of the changes to the competence management system (from AiTL to Skills Assessment Scheme) the existing standards have been updated to identify and support the new requirements of the scheme.

These will be further underpinned by detailed guidance that provides support Line Managers and takes into account the requirements as written in the standard.

A specific clause has been added to reflect what actions are to be undertaken following an extended period of absence. (Example shown below).

Following review and approval of these documents the content will be briefed to the business and published as part of the business change process from May 2015 onwards;

Returning to work after a period of absence

General

Any competences that expire during the period of absence, shall be recorded as in Oracle as 'to be determined' (level 0) until the actions listed below are completed.

Returning to work within a period of 21 months

At the end of a period of absence, the line manager shall arrange for all technical and safety briefings to be delivered.

Where the individual has been absent and has missed the planned ACC the line manager shall complete an ACC providing it is within the timescales allowed

Returning to work after 21 months

Where the individual has been absent for an extended period and as a result of the ACC failure have been withdrawn initial development activities shall be completed.

Note: The 'Red Requirement' means that no variation can be submitted or approved

In support of this additional step the verification process (also now contained within NR/L3/CTM/306) includes checking that the business has a process in place to identify members of their teams

In addition the verifier/auditor will need to see evidence of how the competence of new starters, transferees and those people returning to work from a period of absence, (including but not limited to sickness, maternity, secondment, military or jury service) have been managed.

The following actions have been undertaken to date:

- 1. NR/L3/CTM/306 Competence Assurance: - Assessment in the Line (AiTL) has been updated to reflect the requirements of the scheme NR/L3/CTM/306 Competence Assurance: - Skills Assessment Scheme.*
- 2. The Standard is currently undergoing Peer Review by business representatives across all function;*

The following actions will be completed as part of the ongoing process:

- 1. On conclusion of Peer Review the document will go through final amendment and update to confirm that the content is adequate for business use*
- 2. This standard will be subject to business and function approval via the CTM Standards Steering Group*
- 3. The standard will be previewed on the Standards Webpage in May 2015 for the Business to work to and a TNC drafted, submitted and approved against the old version.*
- 4. The standard will be formally published in September 2015 in line with Business processes.*

5. *Awareness and Technical briefing will be drafted to explain the key changes to the standard, the process and the key requirements and be available to the business on preview of the standard.*
6. *Additionally NR employees will be briefed on the changes by the standards change briefing from May 2015 onwards*

Closure of Part B is estimated for October 2015 in line with the Skills Assessment Scheme 'Activation' (Go-Live) + 1 month post formal publication of the Standard

11. On 14 May 2015 ORR wrote to Network Rail:
 - (a) requesting that it review the wording in the two red boxes under Part B of its response as these may contain some grammatical errors and /or missing text; and
 - (b) seeking confirmation that Network Rail believes that the potential workload that will be created by these two processes is achievable in practice.

12. On 8 June 2015 Network Rail responded provided the following clarification:

"The line manager shall arrange for any technical and safety briefings to be delivered that have been missed as a result of absence."

This is no change from the existing requirements contained within section 14 of NR/L3/CTM/306 regarding prolonged absence from the workplace. The responsibility to arrange Technical & Safety briefing whilst lies with the Line Manager the actual briefings may come from another person – e.g. Competent Person, WDS, Team Leader etc; it is believed that this clause will continue to be achievable.

"Where the individual has been absent and has missed the planned ACC the line manager shall also complete an ACC providing it is within the timescales allowed."

The workload calculation associated with the change to the competence assurance process incorporated the time allocation for ACC activities. Whilst this would be a change to the planned/scheduled ACC date, it would still form part of the original calculation for workload and therefore considered as achievable.

Network Rail also provided an amended recommendation response document with the following updated sections:



Recs Response to
ORR - Bridgeway UWC

a. Returning to work within a period of 21 months

The line manager shall arrange for any technical and safety briefings to be delivered that have been missed as a result of absence.

Where the individual has been absent and has missed the planned ACC the line manager shall also complete an ACC providing it is within the timescales allowed

b. Returning to work after 21 months

Where the individual has been absent for an extended period competence shall be withdrawn as a result of ACC failure.

ORR decision

13. 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.

Status: *Implemented.*