

**Oliver Stewart**  
**RAIB Recommendation Handling Manager**



3 February 2023

Mr Andy Lewis  
Deputy Chief Inspector of Rail Accidents

Dear Andy,

**RAIB Report: Train collision with material washed out from a cutting slope at Corby, Northamptonshire on 13 June 2019**

I write to provide an update<sup>1</sup> on the action taken in respect of recommendations 3 & 5 addressed to ORR in the above report, published on 26 May 2020.

The annex to this letter provides details of actions taken in response to the recommendations and the status decided by ORR. The status of recommendations 3 & 5 is '**Closed**'.

We do not propose to take any further action in respect of the recommendations, 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 6 February 2023.

Yours sincerely,

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

Oliver Stewart

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<sup>1</sup> 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 enable more effective management of the short-term risk to earthworks while waiting for planned work to take place in the longer term, when mitigations using geotechnical instrumentation are not viable options.*

Network Rail should review, and amend as necessary, its processes for the management of earthworks, so that its staff responsible for earthworks are trained and have clear guidance on when and how to trigger appropriate monitoring and/or other short-term mitigations. This is particularly relevant when mitigations using geotechnical instrumentation are not viable options and actions that involve other functions within Network Rail or external organisations are needed instead

### ORR decision

1. Network Rail have taken actions to address this recommendation in conjunction with recommendation 3 from the RAIB report *Freight train derailment at Willesden High Level Junction, north-west London 6 May 2019*.
2. A review of existing documents was done by Network Rail geotechnical and track specialists. The working group reviewed the recommendation in context of existing control documents: NR/L2/CIV/086 “Management of Earthworks” Manual (Issue 10) and NR/L2/TRK/001 “Inspection and Maintenance of Permanent Way” Manual (Issue 19). Among the conclusions of the review was that earthwork evaluations should consider changes to track geometry. Two changes have been implemented to NR/L2/CIV/086/Mod.01 “Earthwork Evaluations” to address this recommendation. These changes have been published in NR/L2/CIV/086 (Issue 11) and summarised in section 2.2.1 and 2.2.2.
3. A new version of NR/L2/CIV/086 (issue 11) has been issued and includes a requirement for the Earthworks Manager to notify the TME and IME if an escalating threat to the track geometry or gauge is identified. A reciprocal clause to this has been included in Standard NR/L2/TRK/001- Inspection and Maintenance of Permanent Way. Network Rail provided assurances regarding the process for risk assessment and the trigger points to initiate and record the Earthwork Management Control Levels.
4. An amendment to the TRK/001/Mod11 was published in March 2022, which includes a reciprocal clause that the TME / IME should contact the Earthworks Manager if any significant track geometry changes are identified.
5. A video briefing on the changes has been delivered to RAM teams (including asset engineers) within the Regions (slide pack attached) via the Business Briefing System. ORR has reviewed the briefing and have concluded it provides the necessary information for engineers to enable them to implement the changes. The system tracks receipt of the briefing and that the recipient has confirmed understanding of it. Network Rail has provided data to show that the briefing had been seen by all who needed to see it, and that understanding had been confirmed (see first slide at para 10).

6. The change has been discussed at the regular Asset Technical Review (ATR) meeting between Regions and the Technical Authority (TA) and has been reviewed as part of the TA's engineering verification programme. Network Rail consider the changes to be widely understood and have provided the example of the Central Route Geotech & TME review (see second slide at para 10) as an example of how Standards changes are embedded within a Region (in this case NW&C).

7. 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: Closed.**

### **Previously reported to RAIB**

8. On 24 May 2021 ORR reported the following:

We have reviewed the plan to address the recommendation provided by Network Rail. Following further discussions with Network Rail and we are content with the approach being taken. We are monitoring progress against this recommendation in conjunction with that for Willesden Junction recommendation 3, which covers similar issues. We have asked Network Rail if they are confident that any changes to standards will be completed by 31 October 2021 (and if not, what the target date is) and what arrangements are in place for ongoing monitoring of implementation.

### **Update**

9. On 18 October 2021 Network Rail provided the following closure statement:



Closure Statement  
\_Corby3.doc

10. On 18 January 2023 Network Rail provided the following technical briefing and additional information to show the changes have been seen and understood by all those that need to see them:



Updates to  
Management of Ear

Reports For Briefing

Below are the statistics for the selected briefing split into organisation units; you may also download a list of individual recipients. Booking data is available in the CSV download.

Individuals Organisation Units



Organisation Unit	Individuals	Confirmed	Unavailable	Flagged	Viewed	Unseen
	7	6	1	0	0	0
AM RAM Geo Technical (EC & NE) (570780) G1	5	5	0	0	0	0
AM RAM Geo Technical Anglia & EM (570552) G1	5	5	0	0	0	0
AM RAM Geotechnics, Drainage & Off Track (570790) G1	9	8	0	0	0	1
AM Regional Buildings & Civils Engineer (570521) G1	1	1	0	0	0	0
AM Regional Track Engineer (570518) G1	1	1	0	0	0	0
CZ RAM Drainage and Off Track (570818) G1	2	2	0	0	0	0
CZ RAM Geo Tech Sussex (570817) G1	10	8	0	0	1	1
CZ Southern DEAM Direct Reports (541970) G1	1	1	0	0	0	0
CZ Southern Head of Regional Engineering (B&C) (541975) G1	1	1	0	0	0	0
CZ SRAM Kent (541910) G1	1	1	0	0	0	0
EA Head of Engineering & Asset Management [Track, GDO&LS] (591943) G5	1	1	0	0	0	0
EA Regional Asset Manager Geotech and Drainage (591946) G1	6	4	0	0	2	0
HQ Principal Engineer (Technical) - Geotechnics (542231) G1	1	1	0	0	0	0
IP MPP North (451220) G2	1	1	0	0	0	0
OB Route Geotech Engineer NW (542924) G2	4	4	0	0	0	0
OY Route Geotech Engineer WCMLS (542914) G2	2	2	0	0	0	0
OZ Route Geotech Engineer Central (542934) G2	3	3	0	0	0	0
ST B&C (571112) G1	1	1	0	0	0	0
ST B&C.GeoTech (570490) G1	5	5	0	0	0	0

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### Central Route Geotech & TME Review

A data driven review focused on safety, performance and asset condition of the inter-operability of Earthworks and TME's for the Central Route. Reviewing and sharing of work banks and emerging risks at short and medium time horizons. The group will be committed to seeking out efficiencies, driving excellence, challenging current practices and contributing to the overall Route objectives.



#### Purpose

To provide a review focused, on safety, performance and asset condition of Earthworks and TME's for the Central Route. It will review newly identified schemes and current projects to enhance cross functional working and identify efficiencies. Advance the implementation of new knowledge, technology and promote best engineering practice in the design, construction and maintenance of earthwork assets and their impact on the track.

- > A strategic approach to asset reliability that links to risk management, RAMP outputs, compliance and maintenance volumes;
- > Review proposed new schemes and current projects to identify synergies and efficiencies;
- > Review of Problem Sites, Adverse Weather Sites and Deferrals to identify critical gaps within the operating model and any additional risk management & mitigating actions that maybe required;
- > Review of incidents to identify learning opportunities;
- > Advance the implementation of new knowledge, innovation and technology;
- > Review any ORR/RAIB or other recommendations progress;
- > Enhance cross functional working and promote best practice and engineering excellence;
- > Share best practice.

#### Attendees

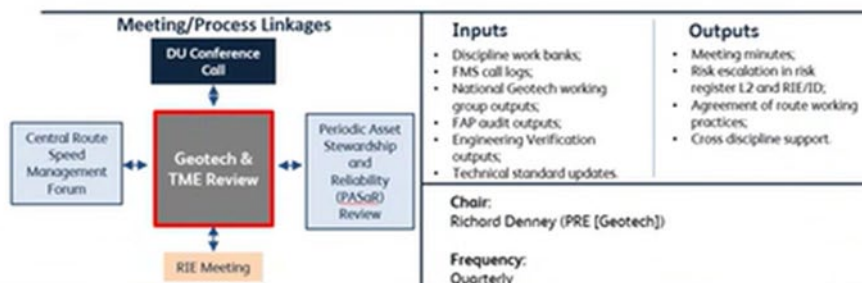
- Core**
  - Principal Route Engineer (Geotech)
  - Track Maintenance Engineer
  - Senior Asset Engineer (Geotech)
- Optional**
  - Asset Engineers (Geotech)
  - Assistant Track Maintenance Engineer
  - Assistant Asset Engineer (Geotech)
  - Section Managers
  - Infrastructure Maintenance Engineer
  - Route Infrastructure Engineer
  - Subject Matter Experts – By Invitation



Agenda	
Topic	Accountable
1. Review actions from previous meeting	PRE (Geotech)
2. Review new schemes and changes to existing schemes	All Core
3. Review problem sites, failures or safety incidents	All Core
4. Review ORR/RAIB/other recommendation progress	All Core
5. Technology and best practice	All Core
6. Set agenda for next meeting	All Core
7. AOB	All Core

#### Expected Outcomes

- > Identification of synergies and efficiencies;
- > Support of L3 & 4 risks and mitigations;
- > Sharing of best practice, new technology and knowledge.



### Recommendation 5

*The intent of this recommendation is to better enable the safe and effective detrainment of passengers by making equipment available for train evacuations.*

Upon completion of recommendation 4, as part of the ongoing industry- wide programme of work to improve the management of stranded passenger train incidents, Network Rail should:

- a) take steps, in cooperation with the train operating companies, so that the equipment identified as required for managing stranded trains and train evacuations

is available for use when needed (such as on specific types of train or placed at strategic locations along each route)

b) brief and/or train its staff involved in managing or responding to stranded trains and train detrainments on how to get the equipment made available in (a) to the site of a stranded train and how to use it correctly once it is there

c) work with each train operating company to prepare rolling stock specific guidance so that each train operating company can brief and/ or train its staff involved in managing or responding to stranded trains and train detrainments on what to expect when this equipment is to be used to evacuate passengers from its trains

### **ORR decision**

11. ORR has written to Network Rail and all TOCS asking them to review their evacuation procedures taking into account the new guidance. Network Rail has conducted an audit of how effectively Corby recommendations 4&5 have been implemented. The audit found that emergency evacuation equipment is generally more readily available, and staff have the appropriate competence to use it. However, the audit also identified areas for improvement around more MOMs doing the elearning on dealing with stranded trains and better training and wider deployment of Train to Train Transfer Bridges (TTTB).

12. 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: Closed.**

### **Previously reported to RAIB**

13. On 24 May 2021 ORR reported the following:

Once the RDG guidance referred to in recommendation 4 has been published we will ask each TOC to review their evacuation procedures taking into account the new guidance. We will also write to Network Rail to state that we expect them to cooperate with individual TOCs, although we accept that they should not lead on this.

### **Update**

14. On 14 October 2022 Network Rail provided the audit of Corby rec 5:

*The audit sought evidence to confirm that relevant personnel from both Network Rail (NR) and Train Operating Companies (TOCs) understood where equipment to manage train evacuations was located, how it would be brought to site, and whether*

*suitable training had been administered for them to competently deploy it in practice. Network Rail Mobile Operations Managers (MOMs) and TOC representatives, that included Train Managers and Conductors, were interviewed to gather this information.*

*Train to Train Transfer Bridges (TTTB) are available on all the Routes assessed however, the storage locations of the equipment differ regionally. The train bridges on East Midlands route are stored at selected stations and on NR response vehicles. Kent also stores them on response vehicles. The location of available evacuation equipment has been briefed to East Midlands Railway (EMR) and South Eastern Railway (SER) staff. This was evidenced through a control brief issued by EMR in February 2022, following an incident involving a misplaced train bridge at Derby Station, and a Train Evacuation information pamphlet published by SER. Both routes rely on Mobile Operation Managers (MOMs) transporting the train bridge to the site of the stranded train.*

*The MOMs interviewed reported the TTTB to be quite unwieldy. It weighs approximately 23Kg and, with it also having separate handrails to the ramp, is difficult to carry across ballast especially in adverse weather. Consequently, the preference is to load the TTTB to a Rescue Train either at a station or suitable access point. Nevertheless, the Kent MOM also reported difficulty in taking the TTTB to a station platform, especially as he was responsible for carrying additional emergency equipment that included a short-circuiting bar. East Midlands have a Work Activity Risk Assessment (WARA) in place to minimise the manual handling risks associated with the delivery and deployment of the train bridge.*

*In contrast to East Midlands and Kent, North West route rely heavily on equipment located onboard passenger trains. Although this has the advantage that the train bridge does not have to be transported to site, their specific design may limit their deployment to particular rescue trains. To emphasise this, a disabled access ramp was used, albeit successfully, to evacuate passengers to a Diesel Multiple Unit (DMU) outside Styal in February 2022 when damage to the overhead line equipment (OLE) prevented the mobilisation of similar electrified rolling stock for the rescue.*

*The Train Operating Companies (TOCs) interviewed are looking to improve their procedures and practices dispensed to execute controlled evacuations from stranded trains. For example, EMR are currently in the process of updating their work instruction for train crew using train bridges on their services. This was first issued in October 2019. The revision plans to a) broaden the scope to all rolling stock on the route, including the regional fleet (the current procedure only applies to HST and Class 222 Meridian stock), b) to embed the use and deployment of TTTB into their Competency Management Cycle, so that responsibility for deployment, currently sitting with NR MOMs, is based on competency and not role, c) to add a TTTB location check into their stations' Planned General Inspections (PGIs) and d) to consult whether to include the other TOCs using the route (Govia Thameslink and Cross Country) in the revised work instruction.*

*Avanti West Coast plan to enable the onboard TTTB to be deployed at all carriages during their Pendolino refurbishment programme. Currently, placement is restricted to the two crew corridors, behind the cabs, and the disabled access coach, where peg-holes are located for securing the bridge.*

*The level of training received by NR and TOC staff varies regionally. All TOC train crew interviewed had received practical training in deploying a TTTB for evacuation using out of service rolling stock located at regional depots. Only the East Midlands MOMs had participated in similar practical exercises at Cricklewood depot. Nevertheless, all interviewees reported that they had received sufficient instruction to declare themselves confident in deploying a TTTB, with several reporting they had carried this out during real-life evacuations.*

*At the point of audit, the auditors were satisfied that sufficient evidence was provided and demonstrated to support the closure of this recommendation however, three Opportunities for Improvement have been identified that the Recommendation Owner may wish to implement to reduce the risk of repeat incidents.*

### **OFI-1 Network Rail MOMs are not aware of the Stranded Trains eLearning**

*The Mobile Operation Managers interviewed were either not aware of, or had not taken, the eLearning course on Stranded Trains. This course may need better publicity to reach its target audience. The training should help embed the essential information to consider when managing stranded trains outlined in the Guidance Notes published by the Rail Delivery Group.*

### **OFI-2 There is no Formal Training for Train Bridge deployment or controlled evacuations**

*Network Rail may wish to consider formal training for roles not covered by the Rule Book that respond to stranded trains. This should include the practical deployment of train bridges during evacuation scenarios. This could be awarded a competence so that training can be monitored and refreshed at suitable intervals. This aligns with guidance provided in Section 11.2 of document GN-049 – Meeting the needs of Passengers Stranded on Trains, which states: "... company competence processes should include all elements of managing Passengers stranded on trains situations, both from a direct (at site) perspective and from the perspective of those managing events within control, who have links to such as emergency responders and external agencies." "The roles and responsibilities of all staff involved should be covered through initial and ongoing refresher training and monitored via company competence management systems, which must include responding to Passengers stranded on trains and train evacuation as specific elements directly associated with the implementation of company response and/or emergency plans."*

### **OFI-3 Not all Rolling Stock has been considered for deploying Train Bridges**

*East Midlands Railway (EMR) are progressing this area having recently undertaken risk assessments on the deployment of a train bridge on all types of train in service on the route. This will subsequently inform the update to their current work instruction. However, North West route utilise evacuation equipment located onboard passenger trains crossing their region. Although the MOM confirmed that TTTBs were available on Avanti West Coast and Trans Pennine Express services, there was no evidence to confirm that other services carried this equipment onboard. If Network Rail plan to support evacuations using specialised equipment, rather than*



*ladders and disabled passenger ramps, then a national review of availability should be considered.*

## Previously reported to RAIB

### Recommendation 3

*The intent of this recommendation is to enable more effective management of the short-term risk to earthworks while waiting for planned work to take place in the longer term, when mitigations using geotechnical instrumentation are not viable options.*

Network Rail should review, and amend as necessary, its processes for the management of earthworks, so that its staff responsible for earthworks are trained and have clear guidance on when and how to trigger appropriate monitoring and/or other short-term mitigations. This is particularly relevant when mitigations using geotechnical instrumentation are not viable options and actions that involve other functions within Network Rail or external organisations are needed instead

### ORR decision

1. We have reviewed the plan to address the recommendation provided by Network Rail. Following further discussions with Network Rail and we are content with the approach being taken. We are monitoring progress against this recommendation in conjunction with that for Willesden Junction recommendation 3, which covers similar issues. We have asked Network Rail if they are confident that any changes to standards will be completed by 31 October 2021 (and if not, what the target date is) and what arrangements are in place for ongoing monitoring of implementation.

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
- is taking action to implement it

**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

3. On 22 August 2020 Network Rail provided the following initial response:

*Network Rail will initially review the following documents:*

- *NR/L2/CIV/086: Management of Earthworks Manual*
- *NR/L2/CIV/086/Mod01: Earthwork Evaluations*
- *NR/L2/CIV/086/Mod04: Earthwork Interventions*
- *NR/L2/CIV/086/Mod05: Earthwork Mitigations*

- *NR/L2/CIV/086/Mod09: Earthworks Adverse / Extreme Weather Risk Assessment*
- *Selection of regional / route deferred renewal registers*
- *Proforma within NW&C produced to document decision making for mitigations*

*The review will identify where there are potential deficiencies in the provision of clear guidance on when and how to trigger appropriate monitoring and / or short-term mitigations. In addition, local documents will be reviewed to identify best practice in recording the decision making of mitigations to provide line of sight from evaluation.*

*The recommendation focuses on short-term mitigations involving other functions (as geotechnical instrumentation are not always viable options because of deployment time). Noting this we will review guidance on the use of rapidly deployable mitigations (e.g. watchmen, tiltmeters) and alignment between Mod 01, 05 and 09 of the earthwork's manual.*

#### **Evidence required to support closure of recommendation**

- *Conclusions from the documentation review and feedback from the geotechnical community throughout Network Rail via the Asset Technical Review (ATR).*
- *If deemed necessary from the review, an example proforma will be included into an appropriate section of the 086 manual or one of the accompanying modules. This may include a table to illustrate different failure modes (and speed) and the applicability of mitigations to manage risk. Any changes to standards would be briefed accordingly.*

#### **Recommendation 5**

*The intent of this recommendation is to better enable the safe and effective detrainment of passengers by making equipment available for train evacuations.*

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### **ORR decision**

4. Once the RDG guidance referred to in recommendation 4 has been published we will ask each TOC to review their evacuation procedures taking into account the new guidance. We will also write to Network Rail to state that we expect them to cooperate with individual TOCs, although we accept that they should not lead on this.

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***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**

6. See information in support of recommendation 4.