

Oliver Stewart
RAIB Recommendation Handling Manager



31 March 2026

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Track worker near miss incidents at Camden Junction South, London on 28 February 2017

I write to provide an update¹ on the action taken in respect of recommendation 3 addressed to ORR in the above report, published on 27 November 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 3 is **'Closed'**.

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.

Yours sincerely,

Oliver Stewart

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 exposure of track workers to risk arising from the need to be on track to place or remove possession limit boards and detonators.

Network Rail should, as part of its Track Worker Safe Access Strategy, critically review the possession management process and, where appropriate, reduce the need for staff to be on the track for the purpose of taking or giving back a possession (paragraph 102b). This review should include consideration of newly developed technologies such as remotely operated track circuit operating devices, and the scope for enabling track workers to protect themselves by interacting directly with the signalling and/or train control system.

ORR decision

1. Network Rail originally submitted a closure statement for this recommendation in September 2023. Network Rail proposed closure on the basis of outputs from the review of possession management and protection, however we wanted to see roll-out of the changes completed, or at least well under way, before considering closure. We engaged with Network Rail to assess the embedment of new processes set out in the closure statement.

2. Network Rail provided an update in February 2026 summarising the engineering controls in place for protection of possessions and the benefits in terms of reduced FWI, cost savings, reduction in the number of staff needed on-site and additional worktime in possessions.

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; and
- has taken action to close it

Status: Closed.

Previously reported to RAIB

4. On 28 October 2022 ORR reported the following:

Network Rail has reviewed existing and newly developed technologies to find a better solution for taking and protecting possessions that would reduce the need for staff to be on track to place possession limit boards and detonators. Radio Based Limited Supervision (RBLS) technology is being developed as the long term solution. TPWS signals are being investigated as a reliable interim measure that could be deployed quickly.

Network Rail is considering the risks involved with using TPWS on existing signals. There is a potential risk using TPWS in a way it was not originally designed for, such as when not fitted to a signal. AECOM has analysed the risks and produced a report and recommendations. Only around half of signals with TPWS are in an appropriate location to protect a possession. Test sites have been established at Doncaster station and MML south.

Funding the ongoing research is proving challenging, although the potential savings are significant. Network Rail has noted the system for taking possessions on HS1 is among the best in class, although as the whole railway was designed with that system in mind there are limits to what can be used more widely on the existing network.

Network Rail will fit OBP to 300 of the 600 trains used in possessions. ORR has witnessed the equipment being tested on the West Somerset Railway using a Class 150 fitted with TPWS. EVC is being fitted on yellow plant on the East Coast Main Line. Both OBP and EVC use the same language, so any conflict should be possible to resolve.

A significant challenge will be moving On Track Machines (OTMs) and engineering trains. The long term aspiration will be to use RBLS flex T3. To protect a possession TPWS and signal disconnection will be used.

We are encouraged by the significant work Network Rail has put into improving possession management and reducing the need for protection to be set up by staff on track and wanted to update RAIB on the progress made. As the work is still ongoing, the status of the recommendation remains 'progressing' and we will aim to provide a further update once new technology and processes are implemented.

Update

5. On 27 February 2026 Network Rail provided the following update:

Possession Limit Control – update paper

Over the last 12 we are seeing significant progress with the rollout off engineering controls as the preferred method of possession protection. This provides the following highlights (Year to date (27/02/2026):

- *13% of percentage of possessions (Based on 25/26 using estimated volume in CP5)*
- *FWI benefit of 0.024*
- *Estimated financial savings off £1.077M*
- *5717 possession support staff saved from attending site*
- *Average 4% percentage of additional work time in each possession*

NOTE: Appendix A provides more detailed information.

Technical Authority is developing a detailed safety strategy. The use of technology is a fundamental piece of this jigsaw, and it sees Possession Limit Controls as a key component of this journey.

Working with Group Finance we pulling together refreshed realistic targets from CP7 year3, so far, we have robust plans for 11 of 13 Routes. (awaiting detailed plans from East Midlands and Anglia, however in both cases, they are actively rolling T3A/D out)

NOTE: Appendix B provides more detailed information.

Highlights

Rule book

We have prepared and sent our draft possession related rulebook and associated handbooks for the RSSB to finalise and send out for formal consultation in the spring. This change creates a simplified view where you either have not engineering control (IE possession and bold and detonators) or engineering controls (IE signal disconnections track circuit disruption devices or overlay systems). It also incorporates other changes in this space such as transient worksites and improved wording for the use of Possession type APPs in the future.

Train movements

The 2026 Rule Book allows train movements to enter in normal direction and exit in normal direction plus TPAT and GPAT as appropriate. There is a need for the business to be able to undertake wrong direction moves we are in the middle of constructive discussions with ASLEF and the RMT trade unions. The solution will also be usable underlined with the geofencing work we are undertaking

Worksite X

To support the changes for engineering controls we have taken on the project for clarifying how worksite X (now known as transient worksite) is planned and delivered in a safe and transparent manner. This includes the ability for track inspection type activities to be undertaken in a safe manner in the worksite overlap areas.

Resonate Initiate

We have seen successful trials using the resonate initiate system in Edinburgh and we continue to extend the area it is used throughout Edinburgh ROC and into Yoker. We are at the final stages of consultation with our trade union colleagues. We know that we need to consult a suitable solution for the impact of using this new system on operational roles, we have engaged with PA consulting to identify those changes and propose how we come create a fair and suitable methodology as this is rolled out on other areas. Nationally we have an activity ongoing to review procurement arrangements because we are looking at extending the rollout to various locations including Didcot, Marylebone, York ROC to name a few.

Siemens CAP/ARK

We continue to work with the team at Siemens to enable a trail at Inverness with our Scotland colleagues. We have submitted the core documentation to NRAP for evaluation of significance; the outcome is due any day. We have engaged with CPC

consulting to undertake independent safety assurance. The current programme of works expects trials to start in August.

Remote Disconnection Device (RDD)

We have circa 60 devices installed and commissioned, the majority of these on the Wales Route. There has been a patent challenge between Dual Inventive and VoestAlpine. We are currently working with both suppliers to minimise any impact on Network Rail. (Safety and Financial)

Remote Control Track Circuit Operating Devices (RC-TCOD)

We have seen a significant change with the use of the RC-TCOD which has resulted in devices being moved between Routes and devices within Routes been reallocated to align better with Possession and Line Blockage access patterns. January saw 190000 protection minutes and a period on period increase in utilisation. Best practise is seen on Kent, Sussex and Wessex.

Appendix A

Period 12		Period				Year to date		
		Actual Saving	Forecast Saving	Variance	Commentary	Actual Saving	Forecast Saving	Variance
Financials	Kent	5,887	15,000	(9,113)		116,764	120,000	(3,236)
	Sussex	7,963	15,000	(7,037)		20,129	120,000	(99,871)
	Wessex	15,972	15,000	972		71,632	120,000	(48,368)
	Western	5,024	15,000	(9,976)		21,034	120,000	(98,966)
	Wales	2,176	15,000	(12,824)		34,513	120,000	(85,487)
	West Coast South	25,377	15,000	10,377		179,792	120,000	59,792
	Central	-	15,000	(15,000)		-	120,000	(120,000)
	North West	473	15,000	(14,528)		6,565	120,000	(113,435)
	Scotland	60,075	15,000	45,075		322,903	120,000	202,903
	East Coast	23,156	15,000	8,156		229,631	130,000	99,631
	North & East	1,880	15,000	(13,120)		26,240	120,000	(93,760)
	East Midlands	12,281	15,000	(2,719)		27,884	120,000	(92,116)
	Anglia	3,500	15,000	(11,500)		20,000	120,000	(100,000)
	Total	163,763	195,000	(31,237)		1,077,085	1,570,000	(492,915)
		Period				Year to date		
		Possession Support Shifts Not Required	FWI Benefit	% of Possessions using T3A/D		Possession Support Shifts Not Required	FWI Benefit	% of Possessions using T3A/D
FWI	Kent	24	0.00010	3%		476	0.00200	4%
	Sussex	32	0.00013	23%		72	0.00030	18%
	Wessex	33	0.00014	8%		148	0.00062	7%
	Western	16	0.00007	3%		67	0.00028	2%
	Wales	8	0.00003	1%		125	0.00053	1%
	West Coast South	69	0.00029	8%		508	0.00213	7%
	Central	-	-	-		-	-	-
	North West	2	0.00001	1%		28	0.00012	1%
	Scotland	494	0.00207	116%		2,651	0.01113	96%
	East Coast	124	0.00052	12%		1,351	0.00567	11%
	North & East	7	0.00003	0.5%		91	0.00038	1%
	East Midlands	50	0.00021	4.1%		114	0.00048	3%
	Anglia	14	0.00006	4%		86	0.00036	4%
	Total	873	0.00367	15%		5,717	0.02401	13%
		Period				Year to date		
		Productivity % for T3H	Productivity % for T3A/D	Improvement %		Productivity % for T3H	Productivity % for T3A/D	Improvement %
Productivity	Kent	90%	98%	8%		90%	98%	8%
	Sussex	93%	99%	5%		94%	99%	5%
	Wessex	95%	98%	3%		95%	98%	3%
	Western	100%	100%	-		98%	99%	1%
	Wales	89%	99%	10%		89%	98%	9%
	West Coast South	95%	98%	4%		95%	98%	3%
	Central	-	-	-		-	-	-
	North West	93%	98%	5%		93%	98%	5%
	Scotland	91%	98%	7%		91%	98%	7%
	East Coast	93%	96%	3%		93%	97%	3%
	North & East	97%	99%	2%		96%	99%	4%
	East Midlands	96%	98%	2%		96%	98%	2%
	Anglia	94%	98%	4%		94%	98%	4%
	Total	94%	98%	5%		94%	98%	4%

Appendix B

	Route	Programme Leads	Plans (Yes/No)	Forecast OPEX(	Forecast CAPEX	Fishbone up to date
Eastern	Anglia	James Smith, Gemma Lester		tbc		
	East Coast	Phillipa Wheelan	Yes	£ 0.18		
	East Midlands	Rachel Townley		tbc		
	North & East	Linsey Flemming, Alana Heath, Andy Lewis		£ 0.28		
NWC	North West	Bruce Robertson, Gavin Jones		£ 0.45		
	Central	Jason Naylor, Rebecca Fisher	Yes	£ 1.60		
	West Coast South	Gavin Smith, Andrew Grice	Yes	£ 0.27		
Scotland	Scotland	Melanie Campbell	Yes	£ 8.10		Yes
Southern	Kent	Gabriele Laurikute	Yes	£ 0.13	£ 0.43	Yes
	Sussex	Ray Clarke	Yes	£ 0.11		Yes
	Wessex	Melanie Shaftoe	Yes	£ 0.48		
W&W	Wales	David John, Duncan Lovatt		£ 0.84		
	Western	Dom Gorton, Simon Bowden, Neil Watson	Yes	£ 1.18		Yes

Previously reported to RAIB

Recommendation 3

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ORR decision

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3. Funding the ongoing research is proving challenging, although the potential savings are significant. Network Rail has noted the system for taking possessions on HS1 is among the best in class, although as the whole railways was designed with that system in mind there are limits to what can be used more widely on the existing network.
4. Network Rail will fit OBP to 300 of the 600 trains used in possessions. ORR has witnessed the equipment being tested on the West Somerset Railway using a Class 150 fitted with TPWS. EVC is being fitted on yellow plant on the East Coast Main Line. Both OBP and EVC use the same language, so any conflict should be possible to resolve.
5. A significant challenge will be moving On Track Machines (OTMs) and engineering trains. The long term aspiration will be to use RBLs flex T3. To protect a possession TPWS and signal disconnection will be used.
6. We are encouraged by the significant work Network Rail has put into improving possession management and reducing the need for protection to be set up

by staff on track and wanted to update RAIB on the progress made. As the work is still ongoing, the status of the recommendation remains 'progressing' and we will aim to provide a further update once new technology and processes are implemented.

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
- 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.

Previously reported to RAIB

8. On 28 November 2018 ORR reported the following:

Network Rail have provided information about the general approach and long term goals for improving the process for taking and giving back possessions. We are supportive of the approach being taken and expect to see a more detail plan developed in the coming months.

Update

9. On Network Rail provided the following timescale extension to 30 September 2023:



Camden Jn South
Rec 3_ v4.docx

10. Network Rail state the following

A review of existing and newly developed technologies has been completed. The project is taking these findings to develop:

- *undertake option testing*
- *potential solutions evaluation (CBA and timeline) and proposal development*
- *sufficiency of existing protection systems (as additional protection)*
- *review of 'protection zone' and the HoBC led rulebook changes*
- *benefits of RBLs (the system potentially offers significant opportunities either as a stand-alone solution or a supporting solution)*

Possession limit controls business case is being developed to secure funding in CP6 & CP7