

Oliver Stewart
RAIB Recommendation Handling Manager



6 August 2025

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Derailment of a freight train at Llangennech, Carmarthenshire on 26 August 2020

I write to provide an update¹ on the action taken in respect of recommendation 7 addressed to ORR in the above report, published on 13 January 2022.

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 7 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 7

The intent of this recommendation is to reduce the risk that wagons will continue to run with undetected dragging brakes or locked wheelsets.

Network Rail in conjunction with RSSB and the National Freight Safety Group should review the technology and systems currently being used in the UK and other European countries to identify how improvements can be made to the railway's ability to alert a train driver, signaller or control room to a wagon defect that may lead to a derailment, such as dragging brakes or an axle bearing failure. This review should include consideration of:

- the use of existing or new trackside equipment that is designed to detect overheated wheels and transmit an alarm; and
- equipment installed on wagons that is capable of detecting a safety critical fault and transmitting an alarm.

A risk-based plan should be formulated for the introduction of such improved systems, that accounts for the likelihood and consequences of a dangerous goods train derailment.

ORR decision

1. The measures described by Network Rail in the closure report meet the recommendation intent to reduce the risk that wagons will continue to run with undetected dragging brakes or locked wheelsets.
2. A key risk control for detection of potential dragging brakes or a locked wheelset is Hot Axle Box Detectors (HABD) and Wheel Impact Load Detectors (WILD). Network Rail is implementing a strategy to improve the availability and reliability of existing HABD and WILD installations. This approach has been successful, and Network Rail have managed to increase the number of HABD and WILD systems that are operational and have plans to bring the remaining sites back into use.
3. A risk-based approach for the placement of detection equipment has been piloted on Western route and consultants have been commissioned to review the site assessment process for placement of HABD and WILD systems. Network Rail is also trialling other possible detection systems has been working with Indian Railways on a possible replacement for WILD.
4. Investigation of wagon-mounted technology has been led and coordinated through the Wagon Condition Programme (WCP) and Technology Working Group. Several systems are being developed/trialled, and the National Freight Safety Group is ensuring findings are shared across the sector
5. In addition, Network Rail have and are undertaking several trials for technologies with a view to roll out. This includes Acoustic Bearing Monitoring, Thermo-optical cameras, Fibre Optic Acoustic Sensing and I-Wagon.

6. We recognise that while Network Rail is able to make changes to infrastructure, there is limited scope to mandate the introduction of new systems to rail vehicles. Key to ORR agreeing to close the recommendation was Network Rail being able to demonstrate industry-wide governance and assurance was in place to create and share good practice in maintenance and repair of wagons. Furthermore, we welcome the opportunity to conduct a targeted assurance review to monitor industry commitment to the governance structure implemented in response to the recommendation.

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 close it.

Status: Closed.

Previously reported to RAIB

8. On 12 January 2023 ORR reported the following:

The recommendation covers both equipment fitted to the infrastructure and wagons. Network Rail confirmed that parts 1 and 2 of the action plan will consider solutions for equipment fitment to infrastructure and wagons. Action 3 will focus on infrastructure as the other action relating to fitment on wagons is not within the accountability of Network Rail to resolve since it has commercial implications for FOCs. ORR will consider how to progress this part of the recommendation in due course.

Update

9. On 13 July 2025 Network Rail provided the following closure statement:



[N241-12]

Llangennech Rec 7.do

Previously reported to RAIB

Recommendation 7

The intent of this recommendation is to reduce the risk that wagons will continue to run with undetected dragging brakes or locked wheelsets.

Network Rail in conjunction with RSSB and the National Freight Safety Group should review the technology and systems currently being used in the UK and other European countries to identify how improvements can be made to the railway's ability to alert a train driver, signaller or control room to a wagon defect that may lead to a derailment, such as dragging brakes or an axle bearing failure. This review should include consideration of:

- the use of existing or new trackside equipment that is designed to detect overheated wheels and transmit an alarm; and
- equipment installed on wagons that is capable of detecting a safety critical fault and transmitting an alarm.

A risk-based plan should be formulated for the introduction of such improved systems, that accounts for the likelihood and consequences of a dangerous goods train derailment.

ORR decision

1. The recommendation covers both equipment fitted to the infrastructure and wagons. Network Rail confirmed that parts 1 and 2 of the action plan will consider solutions for equipment fitment to infrastructure and wagons. Action 3 will focus on infrastructure as the other action relating to fitment on wagons is not within the accountability of Network Rail to resolve since it has commercial implications for FOCs. ORR will consider how to progress this part of the recommendation in due course.

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 2 August 2022 Network Rail provided the following action plan:

Action Plan

Please provide milestones with dates

Action 1: Consultation and Review of existing technology and systems currently used in the UK and Europe – To be undertaken in consultation with RSSB, Freight Safety Group and Europe's Rail Joint Undertaking programme. Completion of outputs – 30/11/22

Action 2: Review and assessment of available equipment that can detect safety critical fault and transmit an alarm – Analysis of suitable equipment and status of such equipment for use on UK or European network – 30/11/22

Action 3: A plan to be developed outlining opportunity for such systems to be developed and made available for use. The plan will include a risk-based assessment prioritising the systems that would be introduced to reduce the likelihood and consequences of a dangerous goods train derailment. - 01/05/23