

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



22 November 2024

Mr Andy Lewis  
Deputy Chief Inspector of Rail Accidents

Dear Andy,

**RAIB Report: Track workers struck by a train at Margam on 3 July 2019**

I write to provide an update<sup>1</sup> on the action taken in respect of recommendation 11 addressed to ORR in the above report, published on 12 November 2020.

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 11 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

---

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

## Recommendation 11

*The intent of this recommendation is to better understand the practicability of providing an automatic means of improving the discernibility of audible warnings provided by trains when the driver applies emergency braking.*

The Rail Delivery Group (RDG), in conjunction with Network Rail and RSSB, should commission research into reasonably practicable ways of enabling a train's horn to automatically sound when a driver initiated emergency brake application is made on a moving train (as is already done on some UK tram systems). The objective of any such change would be to offer the best opportunity of the audible warning to be discernible, while taking the responsibility from the driver for sounding the horn during situations that are stressful.

### ORR decision

1. RDG, in conjunction with Network Rail and RSSB has considered practicable ways of enabling a train's horn to automatically sound when a driver initiated emergency brake application is made on a moving train. RDG, after consultation with train operators, concluded that there were a significant number of instances where the emergency brake was moved where it would not be desirable for the horn to sound.

2. Recognising the need to consider ways of making use of the horn in emergencies more effective, RSSB started project T1273, Optimising drivers' use of audible warnings. The findings of the project were incorporated into the Rule Book. The new rules reduce the amount of different warnings and tones used by drivers so they are easier to understand and carry out. Key to Margam rec 11, there will be no automatic sounding of the horn when the brake handle is moved to the emergency position. The urgent warning now becomes a prolonged tone rather than a requirement to sound lots of short, urgent ones. This should make it easier for drivers both to remember and to implement.

3. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, RDG has:

- taken the recommendation into consideration; and
- has taken action to close it

**Status: Closed.**

### Previously reported to RAIB

4. On 10 November 2021 ORR reported the following:

RDG has commissioned RSSB to research the benefits and disbenefits of enabling a train's horn to automatically sound when an emergency brake application is made.

Initial findings are that it could be possible for some trains, although work is still at an early stage.

## **Update**

5. On 26 March 2024 the Rail Delivery Group provided the following update:

*RSSB has completed its analysis and research into the practicability of improving audible warnings when the driver applies the emergency brake as of February 2023. This report was integrated into the findings of T1273 (Optimising drivers' use of audible warnings). The research undertaken concluded there was a potential benefit of £685K a year with costs/disbenefits of £16.6M-25.1M over a 30 year period. The indefinite result of the project is considered as follows "The findings from this preliminary assessment should be compared to the respective cases of those other industry initiatives in affected risk areas. This would help determine whether implementing the change may remain reasonably practicable. Should that be the case, further analysis could be undertaken to refine the case and define its potential prioritisation for the industry."*

## Previously reported to RAIB

### Recommendation 11

*The intent of this recommendation is to better understand the practicability of providing an automatic means of improving the discernibility of audible warnings provided by trains when the driver applies emergency braking.*

The Rail Delivery Group (RDG), in conjunction with Network Rail and RSSB, should commission research into reasonably practicable ways of enabling a train's horn to automatically sound when a driver initiated emergency brake application is made on a moving train (as is already done on some UK tram systems). The objective of any such change would be to offer the best opportunity of the audible warning to be discernible, while taking the responsibility from the driver for sounding the horn during situations that are stressful.

### ORR decision

1. RDG has commissioned RSSB to research the benefits and disbenefits of enabling a train's horn to automatically sound when an emergency brake application is made. Initial findings are that it could be possible for some trains, although work is still at an early stage.
2. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, RDG 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 23 February 2021 RDG provided the following initial response:

*In our response dated 8 October 2020 to RAIB in respect of the draft report, we stated that we did not "believe an intervention like this would have affected the outcome of the incident and is potentially a very costly use of industry resources and funds at a difficult time. Tram systems operate in very different environments and we do not believe the read-across from light rail to heavy rail in this instance is well placed".*

*We believe that it is not yet proven that it is reasonably practicable for a train's horn to automatically sound on the mainline railway when the brake is in emergency when fully taking into account the costs and benefits, thus understanding what this means and coming to an agreed consensus about it has been explicitly included in the scope of the research requested. We have formally requested RSSB to undertake research on the high-level benefits/disbenefits quantification work which is to be sponsored by cross*

*industry Asset Integrity Group. Once this work has reported back it would then provide a basis for deciding on potential research into reasonably practicable ways of enabling a train's horn to automatically sound when a driver initiated emergency brake application.*

*We cannot provide dates currently as is dependent on RSSB resource availability.*

4. On 19 October 2021, RDG provided the following update:

*We have reviewed progress with RSSB on stage 1. This shows that there could be a case for modifying some trains however this does not take into account risks and disbenefits which is stage 2. The aim was to see if there was a case in stage 1 before moving on. An industry workshop to consider the disbenefits and risk will start off stage 2 but will take a while to organise due to RSSB priorities*