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22 December 2021

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

Dear Andrew,

**RAIB Report: Runaway and derailment of a wagon at Clitheroe, Lancashire, 9 March 2020**

I write to report<sup>1</sup> on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 23 December 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 all 3 recommendations is '**Progressing**'.

ORR will advise RAIB when further information is available regarding actions being taken to address these recommendations.

We will publish this response on the ORR website on 23 December 2021.

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

## Initial consideration by ORR

1. All 3 recommendations were addressed to ORR when the report was published on 23 December 2020.
2. After considering the recommendations ORR passed recommendations 1 and 3 to all FOCs and recommendation 2 to Hanson UK asking them to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below. Recommendation 1 and 3 were not addressed to Victa Railfreight when we wrote to the other FOCs. ORR will do in due course and provide an update to RAIB when a response has been received. RAIB consider that recommendation 1 may also be relevant to the owners of industrial premises. We subsequently contacted Network Rail's Freight and National Passenger Operator's (FNPO) route team who confirmed that Freight End Users had been made aware of the incident and the subsequent RAIB report in the Freight End Users Periodic Operations and Safety Report issued in January 2021. The lead inspector for Ministry of Defence rail operations was requested to raise both the incident and RAIB report's findings with the Ministry of Defence.
3. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

### Recommendation 1

*The intent of this recommendation is to reduce the risk of a stabled vehicle running away from industrial premises.*

GB Railfreight, working in conjunction with the owners of industrial premises that it operates trains to or within, should improve its risk assessment process for runaway vehicles so that it considers:

- a. any factors that could increase the likelihood of a runaway vehicle occurring (such as loading condition, the prevailing gradients at stabling locations or reliance on the handbrake on a single vehicle)
- b. any factors that could increase the severity of consequence should a vehicle run away, both within and beyond the boundary of the industrial premises (such as areas where employees or members of the public could come into contact with a runaway vehicle).

It should use these assessments to identify appropriate risk control measures and ensure that these controls are implemented. It should also implement a robust assurance process to check that these risk assessments are updated following any changes and that any control measures identified within them continue to be implemented successfully (paragraphs 120a, 120b, 120c and 122).

**This recommendation may apply to other freight operating companies and the owners of industrial premises which trains operate to and within.**

### ORR decision

4. The responses from the FOCs set out measures to control the risk of a wagon running away. However, the recommendation concerns how a FOC's risk

assessment process takes the risk of wagon runaway into account. ORR will write to all FOCs asking for clarity on what improvements have been made to risk assessment processes to take account of wagon runaway.

5. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, all freight operating companies written to by ORR have:

- taken the recommendation into consideration; and
- are taking action to implement it, subject to confirmation of changes made to risk assessment process to take account of the risk of wagon runaway.

**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. On 7 May 2021 Colas Rail provided the following initial response to Recs 1 & 3:

*The initial starting point in the review process of the three recommendations detailed in the Clitheroe RAIB report was to initiate a meeting once the final report was published. The report was circulated to all meeting attendees prior to the announcement of a meeting being organised to determine Rail Services compliance with relevant rail industry standards applicable to the RAIB report. The meeting attendees included the Professional Heads of Engineering and Operations, Head of Traction and Rolling Stock Maintenance and other subject matter competent persons.*

*As a result of the meeting relevant staff were allocated tasks associated with the RAIB report to check whether our existing procedures, competencies and risk assessments in place were sufficiently robust enough to prevent a similar incident taking place with a Colas Rail operated rail vehicle.*

*The contents of recommendations 1 and 3 of the Clitheroe RAIB report were taken into account as part of the Colas Rail review process of the report. The Colas Rail responses detailed below have addressed both recommendations 1 and 3.*

*Colas Rail response: The RAIB report was circulated internally before a meeting was planned with staff requested to review the report paying specific attention to the recommendations and causal factors leading to the runaway wagon. From the subsequent meetings held, a number of remedial actions and checks were initiated that required addressing with each action having an action owner with the action details stated below. Action 1. Methods of work to be reviewed to better understand if gradients contained within them are a likely hazard or risk. Methods of work have been reviewed and confirmation provided that gradients are not detailed within them. Clearly whilst it would have been useful to have this information, to retrospectively survey all stabling locations and sidings to obtain the gradient details would be a huge undertaking and therefore would be best undertaken by working collaboratively with other freight operators which would*

require cross-industry cooperation. To address the collaboration with other freight operators, Colas Rail Services is actively working with other freight operators and the National Freight Safety Group and Rail Freight Operating Group in the production of “Common Methods of Work” which will be available to all freight operators. The new “Common Methods of Work” will replace the existing methods of work as they become available. A new Code of Practice detailing the process has been produced and it is proposed that it will be available within a matter of months. Where Colas Rail undertakes work within stabling locations where gradients are a factor the infrastructure owner will be informed where this is deemed to be relevant. Additional to the above the subject of gradients in stabling locations will be an agenda item at Rail Services Assurance Group meetings and form part of the Rail Services Safety Improvement Plan.

**Action 2. The Working Manual for Rail Staff: Freight Train Operations (GO/RT3056) (White Pages) to be checked for guidance regarding the correct application of handbrakes.**

The White Pages have been checked and it was determined that Rail Services staff training and assessment was in compliance with the White Pages instructions. However, it was recognised that it would be appropriate in view of the Clitheroe incident to issue an operating notice as a reminder to operations and ground staff on the salient basic rules.

Operations notice RS-ON-286 issued to operations and ground staff. The operating notice is an attachment to this communication.



RS-ON-286  
Handbrake operatic

**Action 3. Rail vehicle Acceptance/Approval certification to be reviewed for brake performance on gradients.**

Engineering Acceptance does capture braking performance on gradients, however the performance requirements have changed over time and there is not a requirement to retrospectively comply. Therefore locomotives and wagons manufactured and certified at different times are likely to have different brake performance.

**Action 4. Correct stabling procedures for Colas Rail vehicles to be reviewed for suitability.**

Stabling point procedures have been reviewed. The review process however, identified gaps in the procedures at Dalston and Preston Docks.

The process to close out the gaps found in the review are to be incorporated into the Rail Services Safety Improvement Plan to ensure that this action is taken through to conclusion with an identified action owner.

**Action 5. Existing dispensation criteria for the deferral of maintenance to be reviewed, specifically for safety critical checks on brakes.**

*Colas Rail Services procedure T04-018 "Control of Dispensation & Deferred Work on Rail Vehicles" has been subjected to a review, as a result of the review an additional field has been added in the procedure form to capture any pre-existing safety critical issues that should be taken into consideration before a dispensation or referral decision is arrived at.*

**Action 6. Risk assessment and ground staff activities**

*Where risk assessments are undertaken that involves the stabling of vehicles in various locations an added emphasis to be placed on ensuring that assessments are both suitable and sufficient for the location concerned to ensure that as far as is reasonably practicable no uncontrolled movement takes place.*

*Freight Department ground staff training and assessment is undertaken in accordance with section T06 procedure "Competency Management System" of the Rail Services CMS Which includes formal training, assessment and skills assessment.*

7. On 19 July 2021 DB Cargo provided the following initial response:

*Point a, all vehicles owned and maintained by DBC are subject to a scheduled maintenance regime which includes examination of brake gear, components and more specifically the operation of the handbrake mechanism and its effectiveness. In addition to this, the vehicle is subject to in-service inspection in the form of Rolling Stock Inspectors (RSI). This check is conducted in accordance with DBC policy DBS/EM/030. The specific section relating the handbrake mechanism is Section B3.5 Handbrakes and details the relevant Engineering Standard for the vehicle Section 7.*

*In addition to this the vehicles are subject to loading inspections which is done in conjunction with the RSI checks and takes into account the vehicle condition and the vehicle is loading correctly in accordance with DCB loading manual.*

*Point b, DBC have contained within the Supplementary Operating Instructions regarding the application of handbrakes. Namely, how many handbrakes should be applied to a vehicle and at what stage. This takes into account the possibility of a handbrake being applied when the vehicle has main air still effecting the brakes.*

*In addition to this a location is risk assessed and a safe system of work produced that would identify the specific requirements for stabling a train and the number of handbrakes required. However, in light of the Toton runaway, DBC have introduced a further check sheet to ensure the gradients are considered within the assessment and the necessary control measure are employed to prevent a runaway.*

8. DC Rail provided the following initial response to recommendations 1 & 3 dated 17 June 2021:

*DC Rail has reviewed the RIAB report into the Clitheroe incident. The Head of Operations initiated a review of processes identified in Recommendation 1 & 3*

*Shortly after the incident a review of the then current locations DC Rail operated that potentially could have issues with runaways. There were no locations identified*

*where vehicles running away would have resulted in the consequences and risk with the tank wagon running away at Clitheroe. Further to that we did issue a brief to all Operation Staff reaffirming the need to secure wagons correctly taking gradients into account. Additionally, the Operation & Standards Manager accelerated out real world Ground Staff assessments and provided guidance and instruction where necessary.*

*More recently, new flows into Pilkington Glass that has a steep falling gradient that runs towards stop blocks and where vehicles are stabled on the blocks. With this location we have written into the MOW at least 5 handbrakes per 8 wagons for each siding. Calvert, which also has a gradient, sits under the DBC SSOW.*

*We now ensure that all notice go out with a date and signature.*

*Moving forward we are establishing a table of dates that all CSSOW are published and are checking them along with the associated risk assessments, which will be reviewed on a 12 monthly basis or as required.*

*The second notice was published again to all Operational Staff after two other similar incidents, to act as a reminder as to the importance of securing trains.*

9. On 20 May 2021 Direct Rail Services provided the following initial response to recommendations 1 & 3:

*In response to your letter dated 26 March 2021 regarding the subject matter this has been reviewed by the Direct Rail Services Legal and Standards Committee and they have completed a review and commenced an update of its operations and associated processes as part of an inter-department exercise.*

*A full and comprehensive review was undertaken between Operations, Engineering and HSEQ for a joint approach to ensure due diligence and independence for the stabling methods used at all DRS locations.*

*We are now in the process of ensuring appropriate risk control measures are clearly defined within all required Safe Systems of work (learning from the findings of this report) and will also be ensuring their implementation via active monitoring arrangements. A dedicated working party will be managing a programme to ensure Methods of Work are updated by the end of July 2021.*

*Direct Rail Services agree with the benefits of an industry approach to recommendation 3 and will table this at the National Freight Safety Group (NFSG) where DRS hold the Chair position.*

10. On 30 April 2021 Freightliner provided the following initial response to recommendations 1 & 3:

*The following response outlines Freightliners total commitment in meeting the recommendations contained within the RAIB report into the runaway vehicle at*

*Clitheroe.*

1. *Freightliner is reviewing all its operational methods of work and associated supporting risk assessments as part of the RSSB / NFSG national initiative for Common Safe Systems of Work during 2021. This will encapsulate consideration of securing individual vehicles at each location we operate in and from.*
2. *Freightliner has introduced a companywide permanent instruction for the adoption of Groundstaff at each of its operational locations. This instruction mandates the additional application of scotches in conjunction with the handbrake when stabling individual loaded vehicles.*
3. *Freightliner has briefed its Groundstaff and associated Managers on the above instruction via the Spring 2021 Safety Briefing cascade.*
4. *The training material for securing of individual loaded vehicles, including the use of scotches, will be reviewed as part of the wider Shunter Basic training review taking place during 2021. This material will be updated to reflect the new instruction ensuring future recruited shunters are completely familiar.*
5. *Current Freightliner wagon maintenance plans all include specific inspection task to confirm parking brake operation. All maintenance plans are undergoing review during 2021 to identify whether any further improvements can be made in the light of the incident at Clitheroe. These changes if required will be implemented at planned maintenance events.*
6. *During summer 2021, Freightliner locomotive fleet will be furnished with a "spare" pair of scotches. These shall be used should an individual vehicle become defective en-route and no other scotches are available.*

*Finally, the report and its findings were discussed at the Freightliner Joint Safety Committee (JSC) in February 2021.*

*The mandatory instruction was consulted and accepted by Representatives of the JSC as appropriate.*

11. On 13 July 2021 GB Railfreight provided the following initial response:

*GBRf reviewed the SSOW of work at Clitheroe and its associated risk assessment. This activity was undertaken by our Operations Manager (Mike Wood) supported by Roy Howes (HSEQ Manager) and Mark Rowley (Regional Manager).*

*Page 5 of the GBRf Location Operations Manual (LOM) now includes at point (26) + (27) the following;*

- *26. All stabled wagons must be secured by handbrakes and wheel scotches.*
- *27. The sidings are protected by a derailer and stop board which must be lowered for all train movements and raised when shunting is completed.*

*Note: GBRf worked with Hanson's as they had to enhance their own site specific risk assessment and install a derailer as a control measure to protect the 2 level crossings leading to the mainline.*

*The gradient has been reviewed at the location and is included and is referenced within the LOM for safety critical staff awareness.*

*Risk assessment amended to include these additional controls and the location specific competency assessment has a **\*new\*** question to test and confirm understanding – see below.*

- *How must all stabled wagons be secured and what must be used and where?*

#### Stabling of Wagons Within Hanson Clitheroe Works

65. A derailer has been positioned at the entrance to the two block road sidings, to prevent wagon runaways. The normal position for the derailer is raised and only lowered to allow vehicle movements. On the completion of required shunt moves the derailer must be returned to the raised position.



66. To lower the derailer the retaining pin must be removed, the derailer lowered with associated stop board and retaining pin re-engaged.

67. To raise the derailer the retaining pin must be removed, the derailer raised with associated stop board and retaining pin re-engaged.





68. Stabled wagons must be secured by handbrakes on all wagons and wheel scotches placed under the leading pair of wheels.

Wheel scotches MUST be placed under the leading pair of wheels



69. Wagons that required stabling within Hanson Clitheroe sidings must be placed 2 metres from the buffer stops.
70. Any subsequent wagons to be stabled must be coupled up, handbrake applied and scotched under the leading pair of wheels to prevent any wagons from moving and rolling away.

*GBRf already is fully compliant with the requirements at TARMAC and CEMEX locations where single or stabled vehicles must all be secured with handbrake and scotches.*

*The review of gradient profiles was undertaken by the Regional Managers Operations Teams. GBRf also removed an operating notice related to pulling chords and simplified it as this could have imported risk onto the operation.*

*GBRf is aware of its duties under the HASAWA '74, Section 3 of Management Regs '99 and Railway Safety (& Miscellaneous Provisions) Regs '97 and these actions should ensure our compliance in this area.*

*GBRf has two assurance processes (1) its competence management regime including unobtrusive performance monitoring at industrial operations locations inclusive of Clitheroe and these are recorded within its on-line competence management tool (EDS). (2) GBRf location specific audits under its annual assurance plan. These look at the Region(s) and their application of the SMS, associated standards and procedures. The audit for 2021 of the North Region is due to be undertaken in Q3 by 30<sup>th</sup> September 2021.*

## **Recommendation 2**

*The intent of this recommendation is to reduce the risks related to rail operations on railway infrastructure owned by Hanson UK.*

Hanson UK, working with its contractors, should assure itself that suitable and sufficient risk assessment has been undertaken for all rail operations taking place on the railway infrastructure it is responsible for.

## **ORR decision**

12. The risk assessment method statement (RAMS) provided in response to the recommendation only considers the industrial facility where the incident occurred, not all sites where Hanson UK is responsible for railway operations. We have asked Hanson UK to clarify that suitable and sufficient risk assessment are in place for all industrial sites where it is responsible for railway operations.

13. One of the predominant control measures in the RAMS document is the maintenance providers safe system of work. We have asked Hanson UK to clarify how it assess third part risk assessments to ensure that it reflects the information contained in their own risk assessment.

14. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Hanson UK 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

15. On 17 May 2021 Hanson UK provided the following initial response:

#### Response:

The risk assessment process was reviewed with our health & safety department, site management & rail contractors. Actions noted for the control of risk was divided into two areas, Rail operations (Infrastructure) and Rail Activities. The risk assessment for rail operations was undertaken in March 2021 (See attached), areas of improvement have either been resolved or placed onto an action plan. {part of the development all responsible managers shall be attending a rail safety course providing them with a detailed insight into the effective management of rail infrastructure.

Rail activities (Movement and maintenance) all risk assessments and standard operating procedures have been fully reviewed, amended and approved by Hanson management with a review process agreed.

Copy of updated Risk Assessment Method Statement attached.



Rail RAMS.pdf

### Recommendation 3

*The intent of this recommendation is to reduce the risk of a vehicle stabled on a gradient from running away.*

Freight operating companies should review the adequacy of the processes documented in industry standards and company local instructions for stabling

vehicles on a gradient using handbrakes, particularly if a laden vehicle is to be left on its own. The review should consider:

- a. how the effectiveness of the vehicle's handbrake on the gradient is assured if it is applied at the same time as the air brake, and over time as the air brake releases (for example as air leaks out of the braking system)
- b. how the risk of a vehicle running away while being stabled on a gradient, and the associated risks to staff working around a vehicle, are managed if the vehicle's air brake is released before its handbrake is applied.

Freight operating companies should address any inadequacies that are found in these processes by making changes to their local instructions and/or by proposing changes to industry standards.

### **ORR decision**

16. All of the FOCs ORR addressed the recommendation to have concluded that no changes to industry standards for stabling vehicles is needed and so no approach has been made to RSSB. ORR will seek confirmation of this point from the Rail Freight Operators Group (RFOG) and then provide an update to RAIB.

7. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, all freight operating companies written to by ORR have:

- taken the recommendation into consideration; and
- are 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**

17. On 7 May 2021 Colas Rail provided an initial response to Recs 1 & 3 (See Rec 1 above).

18. On 19 July 2021 DB Cargo provided the following initial response:

*DB Cargo carry out a risk assessment of all our locations for operating practices that is then used for the safe system of work. However, DB Cargo have started a review of all yards and sidings risk assessments to ensure the hazards and risks (eg Gradients) are documented and control measure implemented. This work is being undertaken by a small working group and the out puts will lead to updated risk assessment and safe system of works. In addition, the output of the group will also lead to a change to the standards.*

*The process of vehicles being passed for Driver Only Run Road, where a vehicle is stabled on the air brake only is covered in our internal Engineering Standards and cover the process for identifying traffic that can be used in DOO scenario's. This is subject to leak testing of the vehicles.*

*The issue of capturing gradients in site operation method of work has also been raised with the Common Safe System of Work working group for inclusion in the new standard.*

19. DC Rail provided an initial response to Recs 1 & 3 dated 17 June 2021: (See Rec 1 above).

20. On 20 May 2021 Direct Rail Services provided an initial response to Recs 1 & 3 (See Rec 1 above).

21. On 30 April 2021 Freightliner provided an initial response to Recs 1 & 3 (See Rec 1 above).

22. On 13 July 2021 GB Railfreight provided the following initial response:

*GBRf has taken the immediate action to implement the use of scotches in order to combat the single failure point of the handbrake.*

*GBRf's Professional Head of Operations (Peter Brockett) reviewed the GBRf CMS and the associated GOA (General Operating Appendix) to ensure that it reflected accurately the Rule Book and standards and the correct application of the handbrake.*

*Training Manager (Jon Garner) has reviewed its internal training course material and is satisfied that all new Rail Operators leaving the Training School at Peterborough are adequately trained in the correct application of handbrakes and associated risk of runaways.*

*GBRf Head of Standards (Andy Dickinson) is leading a Brake Related Incident Working Group with support from our Head of Major Projects (Dean Duthie). The full details of this project plan can be shared upon request to the Recommendations Team or our Inspector Peter Darling.*

*The Assets Team handle the maintenance regime element around effectiveness of handbrakes when in service. If you wish for further on this then Adam Taylor (Head of Quality & Standards – Assets) can provide this but unsure if that's required at this stage?*

*In closing GBRf is a key member of the NFSG key risk group – Condition of Freight Vehicles on Network (CVFN) as well as the RFOG. I will need to review the RFOG minutes tomorrow with Peter Brockett but recall this incident was discussed at that forum with operators choosing to handle the recommendations in-house and without a collective response issued. That could be challenged as I believe that to be the correct forum and each operator could discuss their responses and give collective assurance.*