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16 March 2021

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

Dear Andrew,

RAIB Report: Freight train derailment at Reading West Junction on 28 January 2012

I write to provide an update¹ on the action taken in respect of recommendations 2 & 3 addressed to ORR in the above report, published on 28 January 2013.

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 2 & 3 is '**Implemented'**.

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 17 March 2021.

Yours sincerely,

Oliver Stewart

In accordance with Regulation 12(2)(b) of the Railways (Accident Investigation and Reporting) Regulations 2005

Recommendation 2

The intention of this recommendation is that rail freight and inter-modal freight terminal operators have arrangements in place to manage the risk associated with allowing poorly packed freight containers on the railway. Recognising that many of the indications of poor packing are hidden, operators should require that their customers give assurance that containers are packed in accordance with recognised good practice (e.g. the IMO/ILO/UNECE guidelines) and carry out appropriate audits to verify this. Where there is no assurance, operators should make physical checks to confirm the evenness of the load.

Freightliner should review its operating procedures and conditions of carriage for freight containers. It should then implement any changes necessary to require that:

- senders provide certification sourced from the relevant party, or have equivalent procedural arrangements in place, which confirm that freight containers offered for transit have been packed in accordance with the 'Guidelines for packing cargo transport units', published by the International Maritime Organization, or an equivalent document;
- the effectiveness of such certification or procedural arrangements are periodically audited, with remedial action taken as needed; and that where such arrangements are not in place:
- alternative action is taken to confirm that the cargo in a container is both evenly and securely stowed.

Recommendation 3

The intention of this recommendation is for inter-modal freight terminal operators to develop requirements and investigate introducing a suitable monitoring system, for use during routine container and train handling, to prevent freight container wagons entering traffic with a side-to-side wheel load imbalance. The system could be based on the measurement of individual or side-to-side wheel loads prior to the train entering traffic or the identification of freight container load offsets during lifting.

Freightliner should develop requirements for a system to monitor and prevent load offsets from containers resulting in wagons with a side-to-side wheel load imbalance entering traffic from its terminals. The system should be considered when terminal equipment is planned to be installed or upgraded, and where practicable, the system should be implemented.

ORR decision

1. Having taken the recommendations into consideration, we chose to include both of them in this update as the issues of a container being unevenly loaded and how it is detected are closely linked.

2. In response to a number of serious derailments involving intermodal services, the cross industry freight derailment working group (XIFDWG) was established to consider what control measures could be used to reduce the derailment risk.

3. The XIFDWG commissioned a port survey to determine the extent of the problem of shipping containers with offset loads and engaged the University of Huddersfield to undertake a review of the impact of longitudinal and lateral offsets in container traffic. The resulting RSSB report, T1119, identified an action limit for lateral and longitudinal offsets, enabling FOCs to amend their wagon loading patterns to reduce the risk of derailment.

4. XIFDWG has worked with Network Rail to develop the capability of the Wheel Impact Load Detection (WILD) system to provide data to FOCs and freight end users to help identify freight trains where wagons are not evenly loaded and maybe vulnerable to derailment.

5. The use of offline WILD data has enabled FOCs to identify problem traffic flows and make changes to container loading patterns and rolling stock use on specific services. For example, Freightliner altered the loading of heavy 20' containers conveying scrap metals from its Lawley Street terminal to ensure that they were loaded with the doors outwards with the majority of the weight away from the bogie. The capability of WILD will be further enhanced through the fitment of RFID to freight rolling stock and Network Rail's intentions to automate the WILD data analysis process.

6. Freightliner has led trials on behalf of XIFDPG to examine the use of container weighing equipment on loading equipment. Trials have been carried out using both a terminal gantry crane and a reach stacker. The trials have concluded that at the current time the equipment commercially available is not sufficiently sensitive to detect offset loads during routine lifting operations. However, this technology is continuing to develop and the "Freight Derailment Prevention Group" will monitor developments in this field.

7. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Freight Operating Companies have:

- taken the recommendations into consideration; and
- taken action to implement them

Status: Implemented.

Previously reported to RAIB

8. On 6 December 2013 ORR reported the following in relation to recommendation 2:

Having considered the responses, ORR has concluded that reviews have taken place and all operators have procedures in place to confirm that the cargo in a container is both evenly and securely stowed. However we have identified that whilst some operators state that opening containers is impractical others have informed us that their procedures allow for containers to be opened and checked. We intend to write to Freightliner, GBRailfreight and DB Schenker to request clarification

9. On 6 December 2013 ORR reported the following in relation to recommendation 3:

ORR agrees with Freightliner that it cannot develop the requirements of the recommendation in isolation on behalf of the industry and we are also keen to ensure an industry solution, rather than a Freightliner solution, is developed. We can confirm that the feasibility of using Network Rail's GOTCHA Wheel Load Detection Equipment to identify wagons with side to side wheel load imbalance was discussed at the Freight Technical Committee meeting on 4 September 2013. The Freight Technical Committee has decided on a two stage approach. The first stage, which has started is to understand what GOTCHA does and how it works so that alarm limits can be determined. The second stage is to consider how this information can be used operationally to mitigate the risks.

ORR needs to understand how Freightliner and other operators intend to prevent load offsets from entering traffic as GOTCHA will only measure loading offsets after the train has entered traffic. We will write to operators asking for clarification.

Update

10. In summary, the rail freight industry has taken the following action to improve management of freight train derailment risk and address Reading West recommendations 2&3:

After a number of serious derailments involving intermodal services, including the derailment at Reading West Junction in 2012, ORR wrote to the Freight Operating Companies (FOCs), Network Rail and stakeholders in December 2014.2The letter highlighted that freight derailment was a system risk and recommended that the industry to work together to address the inter-connected risks associated with track condition, vehicle condition and vehicle loading.

In response to these challenges the rail industry established the XIFDWG, comprising representatives from FOCs, Network Rail, freight customers, RSSB, as well as experts and specialists from academia and consultants. ORR attended XIFDWG meetings as an observer. Working in conjunction with RSSB, the XIFDPG conducted a bow tie risk analysis3andidentified 10 key control measures that had the potential to reduce derailment risk. The control measures were then subject to further analysis by the group to determine their effectiveness.

The work streams are outlined below:

- 1. Use of offline Wheel Impact Load Detector systems (WILD) to check wagon twist
- 2. Use of offline WILD to check for problem wagon loads
- 3. Port Survey for offset loads –to determine level of imbalance of import and export containers
- 4. Switches and Crossings (S&C) twist fault identification-use of MPV-mounted equipment to undertake inspection of S&C not subject to frequent Track Recording Vehicle runs
- 5. Add twist measuring equipment to freight locomotives
- 6. Simulate container wagon sensitivity to derailment with offset load
- 7. Use of online WILD for offset loads with practicable procedures
- 8. Longer or alternative wavelength monitoring
- 9. Set limits and guidelines for wagons with retained loads

10. At loading onto rail, check container for offset load

On 24 June 2020, the Chair of the Rail Delivery Group's Freight Board wrote to Ian Prosser seeking endorsement of the XIFDPG's report "Derailment Project-Movement to Business as Usual Report," together with the proposals for the freight sector's future oversight of freight derailment risk. The report, together with the appendices outline whether each of the work streams has resolved the issue, have plans in place to address the matter or have discounted the risk control. For each work stream the decision-making process has been outlined and evidence has been provided to support the conclusions reached. The report also provides an overview of actions taken by individual duty holders in accordance with the group's outputs. In order to monitor the implementation of control measures as well as the open works streams, a sub-group of the National Freight Safety Group (NFSG) has been established. The "FOC Derailment Group" includes representatives from Network Rail FNPO and SCO, as well as FOCs.

Previously reported to RAIB

Recommendation 2

The intention of this recommendation is that rail freight and inter-modal freight terminal operators have arrangements in place to manage the risk associated with allowing poorly packed freight containers on the railway. Recognising that many of the indications of poor packing are hidden, operators should require that their customers give assurance that containers are packed in accordance with recognised good practice (e.g. the IMO/ILO/UNECE guidelines) and carry out appropriate audits to verify this. Where there is no assurance, operators should make physical checks to confirm the evenness of the load.

Freightliner should review its operating procedures and conditions of carriage for freight containers. It should then implement any changes necessary to require that:

- senders provide certification sourced from the relevant party, or have equivalent procedural arrangements in place, which confirm that freight containers offered for transit have been packed in accordance with the 'Guidelines for packing cargo transport units', published by the International Maritime Organization, or an equivalent document;
- the effectiveness of such certification or procedural arrangements are periodically audited, with remedial action taken as needed; and that where such arrangements are not in place:
- alternative action is taken to confirm that the cargo in a container is both evenly and securely stowed.

Actions taken or being taken to address the recommendation

Freightliner, GB Railfreight, DB Schenker

1. The following joint response was received from the above Freight Operating Companies:

We have reviewed our procedures to ensure that containers are loaded correctly and concluded that existing procedures ensure that the potential risk of poorly loaded containers being transported on rail wagons is as low as reasonably practicable.

Our existing control measures are as follows:

- The standard conditions of carriage in the contract for transport of the container between Freightliner and its customers require the customer to ensure that the container is loaded in accordance with industry standards to prevent any risk being imported as a result of uneven loading. The conditions of carriage also specifically require the customer to advise Freightliner if the container is loaded in a manner that would result in it being unstable or have a high centre of gravity;
- There are well established standards in place (i.e. IMO/ILO/UNECE) that provide guidance to shippers for packing of containers;
- Freightliner carries out a pre-departure examination on every train. This examination requires staff to check whether there are any signs of containers being loaded unevenly.

We have reviewed whether any additional control measures could be reasonably applied in conjunction with other Railfreight Operators and have concluded that any new checks would be impractical and would provide no material safety improvement for the following reasons:

- Requiring freight customers to provide 'certification' that the container has been packed in accordance with the 'Guidelines for packing cargo transport units'. Containers are packed and shipped from locations worldwide and can change ownership during the movement to the UK, therefore there is no practical way that Freightliner could implement such a requirement. For UK export traffic, some form of verification by means of a signed document declaring that the load has been packed and secured in accordance with IMO or equivalent regulations could possibly be implemented. However, this requirement would have to be a statutory regulation applicable to all shipping lines in the UK to ensure that their customers have suitably packed and secured, where required, the contents of a container. Freightliner believes this should not be the responsibility of the rail industry to enforce such a requirement as it is applicable to all modes of container transport within the UK. Unilateral implementation of such a requirement would potentially disadvantage Freightliner by adding cost and additional bureaucracy and result in loss of business to other transport modes or competitors and therefore have no safety benefit. A statutory regulation would not place any single road, rail or waterways transport operator in a position of commercial disadvantage:
- <u>Carrying out checks to confirm containers are loaded evenly.</u> This would require containers to be opened on Freightliner terminals. This is impractical for a number of reasons including; a) container contents are the property of the customer; b) containers can be bonded and are therefore subject to HM Customs and Excise restrictions and c) opening a container could present a hazard to the member of staff carrying out the check due to loose products being carried in the container. A review of the hazards associated with unevenly loaded containers was convened at the RSSB on 17 May 2012 involving representatives of the RSSB, ORR and Railfreight Operators. At that meeting it was concluded that the existing operating practices in place within the industry ensured that the risks associated with the transport of containers was ALARP. This was endorsed by the Freight Technical Committee on 31 May 2012.

Direct Rail Services

2. On 23 May 2013, Direct Rail Services provided the following information: As the majority of traffic conveyed by DRS is domestic, it is more easily inspected and controlled at source in the following manner.

In the main DRS' customers and their agents load to clearly defined patterns drawn up for staff to work to. These take into account weight distribution and securing requirements and are assessed with the assistance of the DRS Loading & Gauging Engineer and Safety & Compliance Inspectors to ensure that prior to acceptance for conveyance on DRS freight services, there will be no importation of unacceptable risk in accordance with DRS Procedures.

Where no loading pattern exists due to "Load to load unit or vehicle combination" or commodity being, new, then a new loading and securing pattern will be created,

assessed and adequately trialled prior to acceptance into on-going traffic. Loading and securing patterns and instructions are documented in the DRS Loading Manual. Any new patterns and instructions will be entered at the next review. A new pattern will not always be required as similar commodities may be similarly loaded and secured, although trials will still be undertaken to ensure competence of Loading & Securing Staff.

In order to assess the on-going effectiveness of the loading and securing patterns; periodic visits are undertaken by the DRS Loading & Gauging Engineer and Safety & Compliance Inspectors. The planning of visits is based on several factors:

- The volume or frequency of traffic movement from a given location;
 - More traffic and movements equates to higher risk of issues arising.
- Historic evidence of issues originating at a given location;
 - Multiple reports of failures in maintenance of loading and securing standards.
- Risk Assessment based on type of traffic from a given location.
 - Palletised goods loaded into steel sided intermodal units would be assessed as importing less risk to the network than roll cages loaded into curtain-sided intermodal units.

At the beginning of each financial year, a record of reported issues is created which translates to various graphs depicting incidence of issues by point of origin and type; these are used as a trending tool. A calendar is also created and, based on the evidence from the previous year's reported issues; an assessment is made on the initial frequency of visits to individual locations.

N.B. The number of visits indicated at the beginning of the year may be surpassed as time passes. The calendar is therefore dynamic as more or fewer visits may occur for varying reasons such as:

- An increase in reported issues;
- Cessation of traffic originating from a given location;
- Increase in or change to traffic originating from a given location.

Colas Rail

3. On 25 April 2013, Colas Rail provided the information below:

The Colas Rail Freight Section has a procedure, TO5-004 New Traffic Acceptance procedure, which includes a check sheet and a new traffic acceptance form that requires completion and signing before accepting new traffic. The procedure has been amended to include two new paragraphs below:

'All containers and swap bodies to be moved on rail by Colas Rail must have a certificate to confirm that the load is loaded correctly and is secured. Depending on the quantity of containers and swap bodies delivered each day to the loading terminal, a percentage (to be agreed) will be opened and checked for correct loading and security and then resealed and form T05-9006 filled out and sent to the container owner.

Any company whose containers or swap bodies are found to be incorrectly loaded will be visited and advised on how to load the container or swap body and to secure the load for safe travel by rail.'

ORR decision

4. Having considered the responses above, ORR has concluded that reviews have taken place and all operators have procedures in place to confirm that the cargo in a container is both evenly and securely stowed. However we have identified that whilst some operators state that opening containers is impractical others have informed us that their procedures allow for containers to be opened and checked. We intend to write to Freightliner, GBRailfreight and DB Schenker to request clarification

Status: In progress, we will update RAIB by 30 June 2014

Recommendation 3

The intention of this recommendation is for inter-modal freight terminal operators to develop requirements and investigate introducing a suitable monitoring system, for use during routine container and train handling, to prevent freight container wagons entering traffic with a side-to-side wheel load imbalance. The system could be based on the measurement of individual or side-to-side wheel loads prior to the train entering traffic or the identification of freight container load offsets during lifting.

Freightliner should develop requirements for a system to monitor and prevent load offsets from containers resulting in wagons with a side-to-side wheel load imbalance entering traffic from its terminals. The system should be considered when terminal equipment is planned to be installed or upgraded, and where practicable, the system should be implemented.

Actions taken or being taken to address the recommendation

5. On 23 May 2013, Freightliner provided the information below:

Freightliner has carried out a number of reviews of the availability of any potential technical solutions to detect unevenly loaded containers before they are loaded to rail wagons. This review has concluded that there is no known reliable equipment currently available to detect uneven loads within containers.

Freightliner have undertaken a number of reviews of potential options for detecting uneven loads over the last few years. This has included investigation of the use of the 'Track Weigh' Train Weighing system. The investigation revealed that the installation of this equipment would not be practical at existing terminals. The train weighing equipment would require being located on the exit line from the container terminal. Existing terminal sites are located adjacent to the running line with no means of practically weighing the train before it enters the mainline network. Therefore any potential adverse loading would result in the train being required to be stopped on the running line having already travelled a distance from the terminal with associated major disruption to the mainline network. In addition, any container identified as unevenly loaded and removed from the train would be highly likely to be subsequently moved from the rail terminal to its destination by road transport at a higher overall safety risk to society. Freightliner therefore proposes to take no further action in this area. Freightliner will, however, continue to review whether any practical monitoring systems become available which could be considered for potential consideration for implementation at its intermodal terminals.

Freightliner are actively supporting Network Rail in reviewing any potential for the proposed 'GOTCHA' wheel load monitoring system to provide data on unevenly loaded wagons. Whilst the use of 'GOTCHA' will only identify wagons that are already en-route, the system may be beneficial in identifying the quantity of wagons with potentially uneven loads. However, the system is still in the early stages of implementation and suitable warning limits for uneven loading are still to be developed. There are also significant challenges to be overcome to allow accurate real time wagon identification associated with the potential implementation of wagon automatic vehicle identification tagging.

6. We felt the above response had not demonstrated that Freightliner had developed requirements for a system to monitor and prevent load offsets as stated in the recommendation. We wrote to Freightliner on 9 August 2013 requesting further information on this and also requesting that they confirm that consideration would be given to any such system when terminal equipment is planned to be installed or upgraded. The following response was received from Freightliner on 30 August 2013:

Freightliner has reconsidered the RAIB recommendation as a result of the ORR request. The RAIB recommendation requires Freightliner to develop a requirement specification for an off-set load monitoring system. However, Freightliner does not consider that it can develop such a specification in isolation on behalf of the industry.

As you are aware, the Freight Technical Committee (FTC) has established a working group to investigate the feasibility of using Network Rail's GOTCHA Wheel Load Detection Equipment to identify wagons with side to side wheel load imbalance. This group comprises of representatives from a wide cross-section of the Railfreight industry including Network Rail, Freight Operating Companies, RSSB and ORR. Freightliner intends to make a proposal to FTC at its next meeting (4 September) to widen the remit for the GOTCHA working group to try to identify a requirements specification for a suitable monitoring system for offset loads.

In undertaking this work, we must acknowledge the potential for moving rejected containers with offset loads by road and the associated increase in societal risk. The investigation must therefore ensure that it considers container safety independent of transport mode.

Freightliner's policy is to fit equipment that meets or exceeds all existing legislation whenever any upgrade or replacement of terminal equipment is undertaken. When the specification for offset load detection equipment has been identified, Freightliner can assess whether any equipment can be installed at a cost commensurate with the reduction in risk.

GB Railfreight

7. On 23 May 2013, GBRailfreight provided the following information:

GB Railfreight, in conjunction with other rail operators, has carried out a number of reviews of the availability of any potential technical solutions to detect unevenly loaded containers before they are loaded to rail wagons. This review has concluded that there is no known reliable equipment available to detect uneven loads within containers. GB Railfreight therefore proposes to take no further action in this area.

However, GB Railfreight will continue to review whether any practical monitoring systems become available which could be considered for potential consideration for implementation at its Intermodal Terminals.

GB Railfreight are actively supporting Network Rail in reviewing any potential for the proposed 'GOTCHA' wheel load monitoring system to provide data on unevenly loaded wagons. Whilst the use of 'GOTCHA' will only identify wagons that are already en-route, the system may be beneficial in identifying the quantity of wagons with potentially uneven loads. However, the system is still in the early stages of implementation and suitable warning limits for uneven loading are still to be developed.

8. In consideration of the response, we felt that GB Railfreight had not demonstrated that it had developed requirements for a system to monitor and prevent load offsets as stated in the recommendation. We wrote to GB Railfreight on 9 August 2013 requesting further information and the following response was received on 9 August 2013:

GB Railfreight works out of various intermodal locations but do not have ownership of any. We acknowledge during the container handling process (reach stacker, gantry, crane etc.) that imbalance loading is only detectable by, the experience of, the 'lifting' operator and adverse reaction of the lifting equipment.

GB Railfreight understands that detection equipment is being developed in this area in the form of corner load cells which register the weight distribution of the container. Further to this, it is understood that currently no 'inland ports' have the benefit of this technology, but would expect this enhancement to be considered by the 'inland ports' when it becomes readily available.

DB Schenker

9. On 1 July 2013, DB Schenker provided the following information:

DB Schenker has carried out reviews of the availability of any potential technical solutions to detect unevenly loaded containers before they are loaded to rail wagons. These reviews have failed to identify any known reliable equipment available to detect uneven loads within containers. DB Schenker therefore proposes to take no further action in this area. DB Schenker will in cooperation with other operators continue to review whether any practical monitoring systems become available which could be considered for potential consideration for implementation at its terminals.

DB Schenker are actively supporting Network Rail in reviewing any potential for the proposed 'GOTCHA' wheel load monitoring system to provide data on unevenly loaded wagons. Whilst the use of 'GOTCHA' will only identify wagons that are already en-route, the system may be beneficial in identifying the quantity of wagons

with potentially uneven loads. However, the system is still in the early stages of implementation and suitable warning limits for uneven loading are still to be developed. There are also significant challenges to be overcome to allow accurate real time wagon identification associated with the potential implementation of wagon automatic vehicle identification tagging.

10. In consideration of the response, we felt that DB Schenker had not demonstrated that it had developed requirements for a system to monitor and prevent load offsets as stated in the recommendation. We wrote to DB Schenker on 9 August 2013 requesting further information and the following response was received on 5 September 2013:

As per previous correspondence, along with industry colleagues, we examined the options for suitable monitoring systems, both for lifting/loading operations and for the assessment of loaded wagons.

There is currently no lifting equipment available to us that has the capability to detect lateral load distribution and this is a key factor in respect of this issue.

When purchasing new equipment, we will always take into consideration the outcome of accident/incident investigations and subsequent recommendations, where we are aware of these.

In respect of this issue, we will continue to monitor the availability of suitable monitoring equipment, both for lifting/loading and the assessment of loaded wagons, and if such equipment were to become available to us, an appropriate cost benefit analysis will be undertaken.

Direct Rail Services

11. On 23 May 2013, Direct Rail Services provided the following information:

Direct Rail Services will work with Terminal Operators at Direct Rail Services managed Terminals in assessing where new technology could be introduced when new equipment is bought, or planned upgrades are being undertaken, in order that off-set loads can be monitored and assessed in rail freight containers during lifting operations to prevent containers with off-set loads being loaded for rail transportation.

12. In consideration of the response, we felt that Direct Rail Services had not demonstrated that it had developed requirements for a system to monitor and prevent load offsets as stated in the recommendation. We wrote to Direct Rail Services on 9 August 2013 requesting further information and the following response was received on 9 August 2013:

In regards to the system for checking side to side imbalance, this is done by way of assessment of individual Intermodal Units.

• Safe balanced distribution of weight is assured during the loading of goods into Intermodal Units by way of the loading instructions contained in Direct Rail Services' custom Loading Manual. All customers are aware of this and

cascade the instructions to staff responsible for safe loading of intermodal units;

- Reach stacker/crane operators also verify by experience; the end to end balance of units during lifting and are instructed to reject those which through experience they define as imbalanced, to allow verification and correction where necessary;
- Pre departure and RST checks are also carried out by Train Preparation staff in line with GO/RT3056 and our vehicle manufacturers instructions to ensure mainline railway safety;
- The whole process is periodically audited to ensure that the intermodal unit and train loading instructions are adhered to.

DRS believe that coupled together, these elements form a robust enough system to prevent potentially imbalanced loads importing risks to the network through DRS services.

In regards to Intermodal Terminals, DRS currently do not operate any terminals. DRS own 2 of those we haul to and from and those are operated on our behalf by third parties. If it became necessary to alter the current system in order to maintain railway safety, DRS would undertake to act as necessary. Furthermore, if during development it was identified as necessary to alter the infrastructure of our locations, then DRS would of course give this due consideration, as it does all other projects it carries out per our documented procedures.

Colas Rail

1. Colas Rail is not an inter-modal freight operator. Should the need arise at a future date to carry out this activity, the installation of side to side measuring devices and suitable monitoring systems would form part of the business case to install such equipment.

ORR decision

13. ORR agrees with Freightliner that it cannot develop the requirements of the recommendation in isolation on behalf of the industry and we are also keen to ensure an industry solution, rather than a Freightliner solution, is developed. We can confirm that the feasibility of using Network Rail's GOTCHA Wheel Load Detection Equipment to identify wagons with side to side wheel load imbalance was discussed at the Freight Technical Committee meeting on 4 September 2013. The Freight Technical Committee has decided on a two stage approach. The first stage, which has started is to understand what GOTCHA does and how it works so that alarm limits can be determined. The second stage is to consider how this information can be used operationally to mitigate the risks.

14. ORR needs to understand how Freightliner and other operators intend to prevent load offsets from entering traffic as GOTCHA will only measure loading offsets after the train has entered traffic. We will write to operators asking for clarification.

Status: In progress. We will update RAIB by 30 June 2014.