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Mr Andrew Hall
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Dear Andrew,

RAIB Report: Freight train derailment near Gloucester

I write to report¹ on the consideration given and action taken in respect of the 7 recommendations addressed to ORR in the above report, published on 9 October 2014.

The annex to this letter provides details of the consideration given/action taken in respect of these recommendations. The status of recommendations 1 is '**Implemented**'. We do not propose to take any further action in respect of this recommendation unless we become aware that any of the information provided becomes inaccurate, in which case I will write to you again.

The status of recommendations 2, 3 and 4 is '**Implementation ongoing**' and recommendations 5, 6 and 7 are '**In Progress**'. 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 14 October 2015.

Yours sincerely,

Andrew Eyles

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

Recommendation 1

The intent of the recommendation is to reduce the possibility of new track defects developing due to the installed drainage not preventing water ingress from the local water table, which could give rise to a risk of derailment.

Network Rail should review the effectiveness of the drainage in the area where the train derailed (between 118 miles 60 chains and 118 miles 40 chains on the up main line between Lydney and Gloucester) to confirm if the work that was undertaken to improve the drainage, when the track was renewed in March 2014, will control the risk of water from the local water table affecting the track's vertical geometry and the recurrence of a cyclic top track defect (paragraphs 194a.i and 195a).

Steps taken or being taken to address the recommendation

1. On 19 February 2015, Network Rail provided the following information:

Network Rail will address this recommendation through a review of the track and drainage asset at the site, carried out in conjunction with Route Senior Drainage Engineer and local maintenance staff to make sure any emerging issues are captured.

A site inspection by the Route Senior Drainage Engineer was completed on 12 January 15. This concluded that work completed so far has been effective in managing the site and would be satisfactory for 1 to 2 years. Further works are planned with a crest drain installation during 15/16 and a further cess lower, yet to be planned.

A further track geometry review will be carried out in March/April 2015 to verify the site condition but in the meantime, track quality continues to be good.

2. ORR wrote to Network Rail to request the results of the track geometry review of the incident site carried out in April 2015:

Track Geometry Analysis at 5 May 2015

This analysis considers the present track geometry and the effectiveness of the track renewal and drainage works already carried out at the site of the Gloucester derailment (15/10/13). This is illustrated by the image below, generated using Network Rail's Linear Asset Decision Support Tool (LADS).

The image has three sections. The top shows the track layout at the location, in this case a simple up line and down line. Superimposed on the diagram is the direction of the derailed train over the up line, and the point at which derailment occurred.

The middle section of the image shows the top trace, indicating vertical alignment. Right rail top has been used for simplicity although there was no discernible difference between both rails. The red trace is the top recorded on 13/6/13 before the derailment. Significant top faults are clearly evident on the approach to the point of derailment. The blue trace was recorded on 13/3/14 following track renewal and cess lowering to improve drainage, throughout the

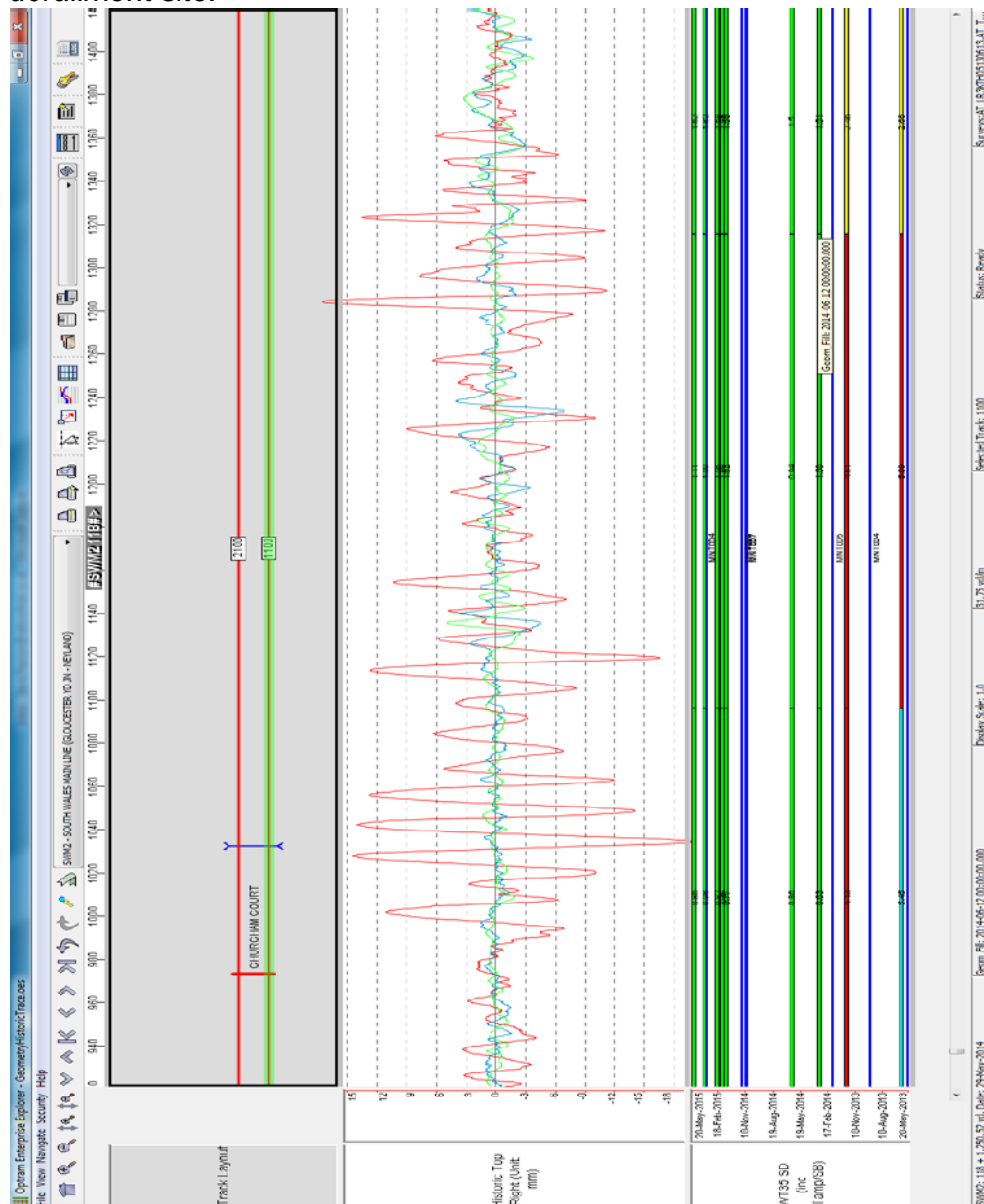
length of the track shown in this image. The green trace was recorded on 1/5/15 and shows minimal change to the blue trace, indicating the sustainability of track quality.

The third section of the image shows successive track quality (WT35m) recordings since the derailment with the most recent at the top of the section. This shows the site was 'super red' at the time of the derailment (shown as light blue colour). Since renewal, this has remained in the 'good' band (shown as green). SDs have remained steady, well within the 'good band' limit of 2.2. This has been achieved without any significant interventions.

No alert or intervention limit track faults have been recorded.

Conclusion

The track asset is now in a good, sustainable position in the vicinity of the derailment site.



ORR decision

3. ORR is content that Network Rail has taken appropriate action to improve the drainage in the area of the derailment and has demonstrably improved track condition as a result.

4. ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

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

Status: Implemented.

Recommendation 2

The intent of the recommendation is to reduce the risk of derailment from cyclic top track defects.

Network Rail should revise its processes for the management of cyclic top track defects. It should:

- a) Review the requirement that immediate action cyclic top track defects must be repaired within 36 hours to understand if it is feasible for an effective repair to be made in this timescale, and if not, mandate the actions that must be taken to mitigate the risk due to the cyclic top track defect until an effective repair can be planned and made;
- b) Provide guidance, which is briefed out to its track maintenance staff, on how to make effective repairs to cyclic top track defects. This guidance should tell track maintenance staff not to carry out manual repair work that is only aimed at breaking the cyclic top track defect into sections of track with poor vertical track geometry, unless the risk presented by the residual poor vertical track geometry is assessed and mitigating actions taken (such as the imposition of a speed restriction);
- c) Review the adequacy of its processes for imposing and removing emergency speed restrictions applied for cyclic top track defects. This is to assure itself that there are adequate controls in place for the removal of cyclic top related speed restrictions. Such controls could include an assessment of the track's vertical geometry, carried out after trains have run over the repaired track, but before line speed is restored; and
- d) Have a process in place that raises the visibility of repetitive cyclic top track defects, so that senior management responsible for the local maintenance team are made aware of it and can monitor the actions being taken to address the cyclic top.

Steps taken or being taken to address the recommendation

5. Network Rail wrote to ORR on 19 February 2015 and 12 June 2015 providing the following information:

In order to reduce the risk of derailment from cyclic top track defects, Network Rail will address this recommendation as follows:

- a) *Review the actions mandated in TRK/001/mod11 with respect to managing cat I cyclic top faults. NR/L2/TRK/001/mod11 will be updated and reissued as appropriate.*

LOI 350 specifically addresses the difference in requirements concerning applying the 30mph ESR as the main mitigation from derailment to cyclic top & from the time scales to rectify the fault. Cat I faults have been extended in time period to 14 days, in line with Cat LI faults. It is emphasised that with 'Combined Faults' such as C+T, any IAL Twist fault remains at the current 36hrs for rectification.

- b) *Guidance will be produced and issued to track maintenance staff (possibly in the form of a Track Work Information sheet) on effective means of repair for cyclic top track defects.*

LOI 350 addresses the requirement by requiring a settlement period & robust assessment of repair effectiveness before any ESR is removed. ESR removal is only acceptable by an Authorised person in accordance with NR/L2/TRK/001/mod 13. Effectiveness of repair has the following guidelines:-

An assessment through the full extent of the cyclic top site (the recorded mileage plus a minimum of 110 yards before the start of the recorded mileage) of the effectiveness of all completed repairs can be undertaken using one of the following methods:

- 1. A new geometry recording by a train-mounted measuring system capable of capturing cyclic top.*
- 2. A visual assessment in daylight, observing the track under dynamic loading, supplemented by the placement of void meters at the locations which have been repaired by manual maintenance and at any remaining dips.*

This measure allows maintenance teams to confirm cyclic top faults have been removed by the repairs carried out and will reduce the occurrence of repeat faults.

- c) *The requirement to impose an Emergency Speed Restriction (ESR) was re-briefed immediately after the Gloucester derailment with a resulting uplift in the number of cyclic top ESRs across the network.*

The process for confirming track is fit for operational use (which includes the removal of ESRs), and who is authorised (competent) to do this, is covered in NR/L2/TRK/001/mod13.

There is a requirement to complete a Track Engineering Form (TEF) when a speed is removed. Checks will be made to confirm that these are being completed (which will demonstrate that inspections are being undertaken, by competent staff, before the speeds are removed).

A review of the training material for the 'confirming track is fit for operational use' competency will be undertaken to identify if any further guidance, about the assessment of vertical geometry, can be provided for removing cyclic top speeds. This will take account of the guidance provided for achieving an

effective repair. Any additional material produced will be briefed to staff who currently hold the 'confirming track is fit for operational use' competency.

An additional requirement will be considered for inclusion in NR/L2/TRK001/mod11 with respect to a 'settlement period' after work is completed before the speed can be assessed for removal.

In addition to the comments on LOI 350 in 2b above, the imposition of an ESR is a critical limit as well as the settlement period.

Minimum period that an ESR remains in place after remedial action (to correct the cyclic top fault) has been completed	
Track Category	Minimum Period
1A, 1, 2 and 3	7 days
4, 5 and 6	14 days

The removal of the ESR is also a critical limit undertaking by an authorised person as per NR/L2/TRK/001/mod 13:

Critical Requirement

3 Inspection of track following engineering work or to raise a line speed

A competent authorised person shall undertake inspections on the completion of engineering work to:

- a) confirm the track is safe for existing line speed, or
- b) confirm the track is safe for an increased line speed.

Baseline Requirement

4 Competency

An appropriately qualified manager shall determine the competency of the prospective authorised person, taking into account training, experience and mentoring.

NOTE The arrangement could be; Level 1 certificate holders by the SM[T], Level 2,3 and 4 by the TME and TME level agreed by the RAM[T].

Appropriate competency criteria can be found in NR/L2/CTM/011.

- d) The additional function which we are looking to add to RDMS (project name - TIGER) will provide greater visibility for all repeats, including cyclic top faults.

This is captured by two aspects.

- i) NR/L2/TRK/001 5.1 Analysis of Track Recording Data.

This addresses the requirement for the TME to review track recording data that is supplied direct to the depot for the following considerations:-

- geometry faults,
- geometry fault trends (including prediction of future faults),
- repeat geometry faults,

- eighths in the Very Poor band,
- eighths in the Maximum band,
- track geometry quality trends,
- the identification and prioritisation of work,
- the effectiveness of completed work,
- sites which may require proposing for renewal.

ii) Current Repeat Fault Report.

The ORACLE system holds the facility to call data queries from the Track Recording data base. One particular query addresses the collation of 'Repeat Faults':

This produces the following report:

ELR	Track Id	Start M	Start Y	End Mil	End Yal	Record	Parameter	Fault S	Action	Record	Location Stati	Repeat Cou
ABE1	1100	3	1688	3	1597	20-Jan-15	Cyc Left 18 m	20.04	C (Correct :60d)		Valid Location	1
ACR	1100	65	201	65	154	04-Mar-15	Cyc Right 9 m	22.65	C (Correct :60d)		Valid Location	1
ACR	1100	65	201	65	154	04-Mar-15	Cyc Left 9 m	22.06	C (Correct :60d)		Valid Location	1
ACR	1100	65	201	65	154	04-Mar-15	Cyc Both 9 m	44.71	B (36h 30ESR:30d)		Valid Location	1
ACR	1100	69	1006	69	943	04-Mar-15	Cyc Right 9 m	23.73	B (36h 30ESR:30d)		Valid Location	1
ACR	1100	72	1063	72	1017	04-Mar-15	Cyc Right 9 m	22.19	C (Correct :60d)		Valid Location	1

6. Network Rail stated that timescale for implementation was by 30 November 2015.

ORR decision

7. ORR is content with the reported progress and that Network Rail's actions have the capability to reduce the risk of derailment from cyclic top track defects and expect its closure statement in due course. To help Network Rail ensure that its actions do fully implement the recommendation's requirements, we have sought further information regarding (1) how it is incorporating the new arrangements into its BAU processes; (2) the completeness of the guidance it is creating for repairing

faults; and (3) its arrangements for delivering the proposed solution for raising the visibility of repetitive cyclic top faults.

8. ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it by 30 November 2015.

Status: Implementation on-going. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Recommendation 3

The intent of the recommendation is to enable maintenance staff to know if their repair work has been sufficiently effective to correct the reported track geometry defect.

Network Rail should provide its maintenance staff with a method of measuring repairs to vertical track geometry which provides early confirmation that the repairs undertaken have been effective.

Steps taken or being taken to address the recommendation

9. Network Rail wrote to ORR on 19 February 2015 and 12 June 2015 providing the following information:

This recommendation is closely linked to carrying out an effective repair (Rec 2b) and the requirement for assessing vertical geometry after work has been completed (Rec 2c).

If the Track Work Information sheet (for Rec 2b) option is chosen, this will provide guidance on how the fault can be measured, both before and after repairs have been undertaken to provide evidence of a (positive) change in the vertical geometry. This will contribute to the information gathered to consider the removal of a speed (Rec 2c).

As per 2b reference to LOI 350 & in conjunction with TWI 3T028 'How to Manage Cyclic Top'.

LOI 350

An assessment through the full extent of the cyclic top site (the recorded mileage plus a minimum of 110 yards before the start of the recorded mileage) of the effectiveness of all completed repairs can be undertaken using one of the following methods:

1. *A new geometry recording by a train-mounted measuring system capable of capturing cyclic top.*

2. A visual assessment in daylight, observing the track under dynamic loading, supplemented by the placement of void meters at the locations which have been repaired by manual maintenance and at any remaining dips.

This measure allows maintenance teams to confirm cyclic top faults have been removed by the repairs carried out and will reduce the occurrence of repeat faults

TWI 3T028

Monitoring

The effectiveness of the repair may not be measurable until the next run of the Track Recording Vehicle. Do not wait for this to happen. Watch the behaviour of the rolling stock and monitor the track closely until you are satisfied that the problem has been solved.

If a speed restriction has been imposed, remove it only when you are confident that the repairs are holding the track to the requirements laid down in Network Rail Company Specifications. Remember – any speed restriction can only be raised by a person with the necessary competence to do so.

10. NR stated that timescale for implementation was by 30 November 2015.

ORR decision

11. Noting that Network Rail's response to this recommendation is closely linked to recommendation 2, ORR is content with the reported progress and that Network Rail's proposed actions has the capability to enable maintenance staff to assess whether their repair work has been successful.

12. We have however sought clarification from Network Rail as to whether they have considered the potential for their track geometry equipment fitted to their tamper fleet is capable of locating and assessing repair effectiveness, and if so the need for guidance on this issue.

13. ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it by 30 November 2015.

Status: Implementation on-going. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Recommendation 4

The intent of the recommendation is to provide maintenance staff with a way of making effective repairs to vertical track geometry faults on steel sleeper track.

Network Rail should investigate methods of making more effective repairs to vertical track geometry faults on steel sleeper track, especially if the underlying formation is

poor or the ballast is contaminated. Any methods that are identified by this work should then be incorporated into procedures and Track Work Information Sheets, and briefed out to its track maintenance staff.

Steps taken or being taken to address the recommendation

14. Network Rail wrote to ORR on 19 February 2015 and 12 June 2015 providing the following information:

Network Rail will incorporate this recommendation as part of the work undertaken to produce the guidance required for Rec 2(b) and will be included when guidance for the other elements of the repair process is issued.

It is already recognized that the only method available to correct geometry in steel sleeper track is tamping (if the ballast is suitable). If the ballast is contaminated to such an extent that tamping will not be effective, a more intrusive solution is required (e.g. re-ballast).

Repairs to steel sleeper track are documented in several TWI's & all conform to the aspect that the hollow design of a steel sleeper requires ballast to be forced into it to produce robust support for the sleeper. Good quality ballast that still retains good angularity to enable interlocking is key to this. The most effective method is Tamping & secondary method not as effective is Kango Packing. A table is produced to demonstrate the preferred & effective methods of repair & is repeated below:

PROCESS DECISION MATRIX FOR PACKING SLEEPERS		Good (Sharp) Ballast	Poor (Rounded/Contaminated) Ballast	Wet Bed	Non Steel Sleepers	Steel Sleepers	Permanent Fix	Temporary Fix	Quick Fix	Level Crossings
Job Number	Process									
9309	Measured Shovel Pack	✓	✓	✓	✗	✓	✗	✗	✓	
9116	Lift and Pack	✓	✗	✓	✗	✓	✓	✓	✗	
9308	Kango Pack	✓	✗	✓	✓	✓	✓	✓	✗	
9233	Lift and Pack Joint	Use process as above								
9112	Tamper	✓	✓	✓	✓	✓	✗	✗	✓	
9113	Stoneblower	✓	✓	✓	✗	✓	✗	✗	✓	
9118	Stoneblow by hand	✓	✓	✓	✗	✓	✗	✗	✓	
✓	First Preferred Option									
✓	Second Preferred Option									
✓	Third Preferred Option									
✗	Do not use									

15. Network Rail submitted a closure statement for recommendation 4 on 20 July 2015. Within that statement Network Rail set out the actions it has taken that it believes implements the requirements of the recommendation.

16. Network Rail reported that it reviewed current documentation, especially in respect of underlying considerations necessary before installation of steel sleeper track. Consideration was given to four specific issues:

- (a) Design and construction of track requirements
- (b) Maintenance actions in response to track geometry performance and identified faults

- (c) Work instructions pertaining to determining if steel sleepers are an appropriate solution
- (d) Work instructions providing guidance on the maintenance of steel sleepers and measure shovel packing.

17. The purpose of the review was to assess the appropriateness of the relevant standards and guidance regarding design and specification of new and relayed track, and the materials that can be used (so as to ensure that steel sleeper track is only specified where ballast and formation conditions are appropriate (to minimise risk of a future maintenance problem)); and how steel sleepers should be maintained. The recently introduced LOI 350 setting out the required actions in response to cyclic top defects (recommendation 2) was also included in the review.

18. The Professional Head of Track, on behalf of Network Rail, concluded that there is sufficient guidance available to frontline staff on the installation and maintenance of steel sleeper track. The methods of making more effective repairs to vertical track geometry faults on steel sleeper track, especially if the underlying formation is poor or ballast contaminated are limited by the very nature the steel sleeper design. Where poor formation is prevalent there is no alternative other than to consider renewal which given geometry deterioration may require mitigating speed restrictions to be imposed.

19. The Professional Head of Track considers that the recent publication of NR/BS/LI/350 provides frontline management teams with greater understanding of the required intervention limits and actions to be put in place when managing track geometry faults, including cyclic top.

20. NR stated that timescale for implementation was by 30 November 2015.

ORR decision

21. ORR believes that the format of available guidance is critical to ensuring maximum penetration to its target audience, and discussed this with Network Rail during progress meetings on this recommendation. ORR has written to Network Rail seeking information on how Network Rail's review considered this aspect, and requested confirmation of the final formats of the guidance on cyclic top repairs (e.g. is it a TWI, video, how to App etc.).

22. ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it by 30 November 2015.

Status: Implementation on-going. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Recommendation 5

The intent of the recommendation is to ensure that when a vehicle's dynamic behaviour is assessed to identify whether its ride performance is compatible with the railway infrastructure in Great Britain (this may include infrastructure that does not comply with Technical Specifications for Interoperability), the susceptibility of its ride performance to track geometry with cyclic top is included in this assessment.

RSSB, in conjunction with Rolling Stock Standards Committee, should carry out a review to identify how a vehicle's response to regular changes in vertical track geometry should be assessed (i.e. a cyclic top assessment). RSSB should then propose changes to the standards which are used to assess the compatibility of vehicle's ride performance with the railway infrastructure in Great Britain (at present this is Railway Group Standard GM/RT2141), which will implement the cyclic top assessment identified by the review. The proposed changes to the standards, as agreed by Rolling Stock Standards Committee, should then be implemented by RSSB by means of a time bound programme.

Steps taken or being taken to address the recommendation

23. RSSB has established a cross industry working group to consider issues around freight wagon/ track condition derailments. As well as Gloucester recommendations 5 and 7, the group is also looking at Primrose Hill/ Camden Junction recommendation 3. RSSB wrote to ORR on 27 May 2015 with information about the establishment of the group:

With regard to both the Gloucester and Camden Road RAIB report recommendations, RSSB has facilitated the formation of a cross-industry working group specifically to work on freight vehicle / track condition derailments. The group includes representatives from Network Rail, freight operators, academia, technical experts, ORR and RSSB. It will analyse in great detail the entire problem from a whole system perspective and any changes necessary to Railway Group Standards will form one of its recommendations.

The group's work is reported to the Infrastructure, Rolling Stock and Plant standards committees, who have indicated that they will accept any proposed standards changes from the group. The group is due to report back to the ORR in six months (although, as noted above, ORR is also member of the group).

ORR decision

24. The cross industry working group is planning to report progress to ORR by the end of October 2015.

25. ORR, in reviewing the information received from Network Rail has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it.

Status: In progress. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Recommendation 6

The intent of the recommendation is to remove or reduce the susceptibility of the IDA wagon's ride performance to dips in the track when in its tare or a partially laden condition.

Direct Rail Services should implement measures to reduce the susceptibility of the IDA wagon's ride performance to changes in vertical track geometry when in tare or a partially laden condition. This could be by means of either the introduction of operating restrictions or modifications to the wagon's suspension.

Steps taken or being taken to address the recommendation

26. On 18 December 2014, Direct Rail Services provided the following information:

As a short term control measure DRS has introduced operating restrictions for IDA wagons to control their ride performance, as detailed paragraph 209 of the RAIB report.

DRS is currently progressing (in conjunction with the wagon manufacturer and bogie supplier) the design and testing of a modification to the IDA wagon's suspension. The aim of this modification is to improve the wagons' ride performance on changes in vertical track geometry to allow the current operating restriction to be lifted.

Preliminary timescales for this work (which have been discussed with the O.R.R.) are:

	Activity	Estimated Timescales	Status
1	<i>Review IDA wagon loading patterns and determine any 'critical' loading conditions (i.e. those that place the suspension at the tare/laden spring changeover point) with a variety of load units.</i>	<i>August 2014</i>	<i>Complete</i>
2	<i>Carry out a series of simulations on agreed track file(s) (to include jointed track & cyclic top) modifying the wagon/suspension parameters to determine if acceptable ride performance in the tare, part laden (suspension changeover) and laden conditions can be demonstrated. This simulation would also include any other 'critical' loading conditions identified.</i>	<i>September 2014</i>	<i>Complete</i>
3	<i>Carry out concept/detailed engineering design to produce a modification that can be retrofitted to an IDA wagon to achieve the suspension parameters identified in steps 1 & 2.</i>	<i>November / December 2014</i>	<i>In Progress</i>
4	<i>Manufacture the components and modify an IDA wagon with the selected solution. (Note that these timescales are governed by damper availability).</i>	<i>April 2015</i>	<i>To Start</i>

5	<i>Test the modified wagon in accordance with GM/RT 2141 Issue 3 and any other applicable standards (methodology to be discussed with O.R.R. in advance).</i>	<i>June 2015</i>	<i>To Start</i>
6	<i>Certificate & approve the modified wagon (methodology to be discussed with O.R.R. in advance).</i>	<i>August 2015</i>	<i>To Start</i>
7	<i>Modification of the IDA wagon fleet.</i>	<i>Timescales to be agreed</i>	<i>To Start</i>

ORR decision

27. ORR has written to DRS seeking an update on progress with the implementation of this recommendation.

28. ORR, in reviewing the information received from DRS has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it.

Status: In Progress. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Recommendation 7

The intent of the recommendation is to highlight the risk that a wagon may be susceptible to riding problems if it is designed with a bogie centre spacing distance that is the same as a wavelength commonly associated with cyclic top track defects.

RSSB, in conjunction with Rolling Stock Standards Committee, should propose that guidance on the design of freight wagons in document GM/GN2688 is amended, to explain that as well as two-axle wagons, if a wagon is designed with a bogie centre spacing that matches a wavelength commonly associated with cyclic top, it may be susceptible to poor ride on jointed track and cyclic top.

Steps taken or being taken to address the recommendation

29. As detailed in the response to recommendation 5, RSSB has established a cross industry working group to consider issues around freight vehicle/ track condition derailments. This will include amendments to GM/Rt 2141 to accommodate longitudinal and lateral asymmetric loading.

30. Part of the revision of GM/Rt 2141 will be to harmonise the requirements and methodologies of some of the content of it to be more compatible with the Euro Norm EN 14363.

31. EN14363 uses a different 'assault course' as to the typical track geometry components (curve radii, over speed etc) needed to be negotiated to enable safe traverse. The review will seek to ascertain that any requirements don't impose any additional burden to GB practise. Conversely, a revised version of GM/Rt 2141 needs to ensure that any non-GB wagon entering into UK should be subject to sufficient scrutiny so that it can negotiate GB track without risks that wouldn't be expected from domestic wagons.

32. GM/Rt 2141 also applies to passenger vehicles and other vehicles such as MPV and plant in travelling mode and the amendments of GM Rt 2141 will be extended to those types of vehicles to a wider consulted audience via rolling stock standards.

ORR decision

33. ORR, in reviewing the information received from RSSB has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, it has:

- taken the recommendation into consideration; and
- is taking action to implement it.

Status: In Progress. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.