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13 February 2017

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

Dear Andrew,

RAIB Report: Passenger trapped and dragged under a train at West Wickham, 10 Aril 2015

I write to report[1] on the consideration given and action taken in respect of the two recommendations addressed to ORR in the above report, published on 29 February 2016.

The annex to this letter provides details in respect of each recommendation.

The status of recommendations 1 is **'implemented'** with regard to Southeastern and Chiltern; and **'progressing'** for all other operators.

The status of Recommendation 2 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 14 February 2017.

Yours sincerely,

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

Oliver Stewart

Initial consideration by ORR

1. Both recommendations were addressed to ORR when the report was published on 29 February 2016

2. After considering the recommendations ORR passed recommendation 1 operators of 'Networker' type multiple units identified by RAIB in the report. In addition, a copy of the letter was sent to all other train operating companies and manufacturers, although a formal response was not requested.

3. Recommendation 2 was passed to RSSB. For each recommendation we asked end implementers to consider and where appropriate act upon them and advise ORR of their conclusions. The consideration given to each recommendation is included below.

Recommendation 1

The intent of this recommendation is to prevent passengers being put at risk of an accident at the platform train interface, in circumstances where they have been able to open passenger trains doors using the door open controls after the door closing cycle has been initiated. The recommendation seeks completion of work already started by some railway organisations.

Operators and owners of trains with power operated doors should jointly review passenger door operation, and apply any necessary modifications so that, if doors are opened by passengers using the door open controls during the door closing cycle, the doors will fully open for a period consistent with safe use by a passenger.

ORR decision

Abellio Greater Anglia

1. On 10 June 2016, Abellio Greater Anglia wrote to us with the following information:

> *We have not as yet implemented any measures proposed in recommendation of this report. We have and are still considering the implementation of a number of potential schemes. We have participated in in the ATOC coordinated and ROSCO lead study into potential modifications to fleets which are affected. (Report by Simon Fung). This details the potential modifications and therefore and estimate of the costs involved.*
>
> *What is not yet known is the relative level of risk for each fleet. Our fleet is diverse in its operation and therefore we recognise the risk of an incident on 12 car 321 with DOO dispatch will be significantly different to the operation of 153 with a conductor in one of only two entrances. We therefore have through ATOC requested support from RSSB in understanding the risk profile to help enable us to take informed choices.*
>
> *Furthermore, we do not yet understand the future of our fleets. We have until October 2016 on our current franchise and at the moment do not know the*

fleets we will be operating and for how long. We know through the Simon Fung report that some of the modifications proposed are quite extensive and may on our large fleets take a considerable time to complete. Therefore consideration of any significant modifications is not practical at the current time. We anticipate that we know more in the next few months (and by Oct 15th at the latest) and will therefore consider the proposed modifications (using the RSSB generated risk profile) in early October to determine which fleets have a case for modification.

2. At the time of their initial response (10 June 2016), assessment by AGA of the risks associated with each fleet and what modifications might be reasonably practicable was on going, subject to the possible extension of the franchise. The AGA franchise has since been extended to 2025 and we have asked them to explain how they will address the recommendation to take account of this.

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

- taken the recommendation into consideration; and
- has taken action to implement it, but has not yet provide a time-bound plan for each fleet that may be affected.

Status: *Progressing*

Arriva Trains Wales

4. On 12 July 2016, Arriva Trains Wales wrote to us with the following information:

Applicable to ATW Class 14X, 150/2 & 158 which all have the same characteristic in that the passenger doors can be opened using the passenger operated push buttons during the 'hustle' period but they will only remain open for the remaining 'hustle' time which could result in them only partially opening and then closing. However this has been the case since build with no similar incidents reported.

Further to this it appears that the train involved was working as 'driver only' operation. ATW do not operate 'driver only' trains. Our conductors will view the door closure procedure as far as reasonably possible from the platform before boarding and locally closing their door and giving the driver the signal to depart.

Further to this I understand that there is a proposal to change the door control circuit to prevent operation during the 'hustle' period. My view is that this would have little benefit and would simply shift the problem to if a customer operated the door just before the 'hustle' period.

5. ATW consider the risk associated with the recommendation to be addressed by existing operational procedures (i.e. no driver only operation). ORR have

challenged ATW's approach of using operational controls and asked them to take into account the technical solutions being considered by other TOCs.

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

- taken the recommendation into consideration; and
- is being challenged by ORR to consider what actions would be necessary to implement it, other than operational controls.

Status: *Progressing*

Chiltern

7. On 16 June 2016, Chiltern Railways provided the following information:

> *Chiltern Railways, similar to the rest of the industry, was very concerned by this incident and carried out tests to see whether the scenarios involved could be replicated on our fleet. We quickly established that this was the case for our class 165 units but did not affect the remainder of our fleet. This was not surprising as the door systems on the class 165/0 fleet are very similar to those involved in the West Wickham incident.*
>
> *We have reviewed the class 165 door control circuits and modified them to:*
>
> *1. Remove the ability for passengers to open the doors once the door close command is given by the driver.*
>
> *2. Provide the door close tone for the duration of the door close action. Previously the door close tone stopped once the door started to move.*
>
> *This functionality is the same as the rest of the powered doors in our fleet and provides a consistent environment for our customers. The class 165 fleet does not have automatic door close in use at the present time.*
>
> *The modifications have been agreed with the class 165 train owner, Angel Trains, and I can report they have now been all completed.*

8. Chiltern have identified their train fleets affected, and implemented an appropriate modification programme, which has now been completed.

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

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

Status: *implemented*

East Midlands Trains

10. On 19 July 2016, East Midlands Trains provided the following information:

Further to your recent email to our Paul Rushton regarding "West Wickham RAIB report recommendation 1" , may I offer the following in response:

As you may be aware ATOC's Technical & Standards Forum have been looking at potential powered door closure issues in conjunction with the ROSCO's. A survey was completed by all TOC's for ATOC which fed into a piece of work undertaken by Porterbrook on behalf of all ROSCOs and TOC's on power door operation of legacy fleets in relation to NIR 3136.

The work identified fleets at risk (of which East Midlands Trains class 158 units was one) and what potential measures can be taken.

We believe the current situation with the East Midlands Trains fleets is as follows:

- *Class 153 - doors can be opened when close sequence started but hustle alarm sounds throughout the close sequence.*
- *Class 156 - doors can be opened when close sequence started but hustle alarm sounds throughout the close sequence.*
- *Class 158 - doors can be opened when close sequence started. The hustle alarm does not sound when the door close sequence is started if the door is in the closed position.*
- *Class 222 - Door control is removed when the door close sequence is started*
- *HST - N/A*

From the above findings East Midlands Trains have carried out a risk assessment on the class 158 door close sequence (attached).

Powered Door Operation 158 Class.

The risk assessment indicates current operational control methods in place offer mitigation to risks presented by the 158 fleet door operations. We will further review our assessment if there are any new developments or in one years-time (from date of issue).

The ATOC T&RS forum have decided that the ROSCO's would take the lead in deciding the approach to door modifications so that any modifications would be consistent across all fleets. ATOC via the T&SF forum will monitor progress.

11. Having taken part in a review of passenger door operation and a risk assessment of the class 158 door closure, EMT considers the recommendation to be addressed by existing operational procedures. ORR have challenged EMT's approach of using operational controls, and asked them to take into account the technical solutions being considered by other TOCs.

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

- taken the recommendation into consideration; and
- is being challenged by ORR to consider what actions would be necessary to implement it, other than operational controls.

Status: *Progressing*

GTR Southern

13. On 9 June 2016, GTR/Southern provided the following information:

Following this recommendation, we have carried out an assessment on all our current fleet types. In addition the ROSCOs commissioned their own report on all power operated stock types operated on the UK railway. The results of this survey and the current/proposed actions are as detailed below:

Train type	***Current configuration***	***Current and/or proposed action***
171	*Door buttons are disabled immediately the driver initiates door close, if door part way open then will complete open cycle*	*No further action*
313 GN Fleet	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Not practicable to undertake action prior to unit handback*
313 Southern Fleet	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door*	*Door control circuit to be modified during PRM modifications to disable local door control buttons as soon as the door close command is given by the*

	will change from opening to closing mid-cycle when the hustle period ends	*driver*
317	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Not practicable to undertake action prior to unit handback*
319	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Not practicable to undertake action prior to unit handback*
321	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Not practicable to undertake action prior to unit handback*
365	*Pre-modification units - If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will fully open then close* *Post-modification units - If the door open button is pressed during the hustle alarm period, the door open buttons are no longer operational and the*	*Door control circuit being modified during PRM modifications to disable local door control buttons as soon as the door close command is given by the driver.* *Door sensitive edge development to be completed and implemented as part of C6 PRM retrofit programme*

	doors cannot be opened	
377/1 – 377/5	*Initial software version did not enable doors to be opened once driver initiated door closure, but later version does*	*Review of door control to be undertaken. Software version H27 has this issue. The prior version P26 did not. H27 was issued following door open in traffic incidents on Turbostars. No similar incidents reported on Electrostars, therefore will risk assess reversion to P26 in the short term.*
377/6 – 377/7	*Door buttons are disabled immediately the driver initiates door close, if door part way open then will complete open cycle*	*No further action*
387	*Door buttons are disabled immediately the driver initiates door close, if door part way open then will complete open cycle*	*No further action*
442	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Not practicable to undertake action prior to unit handback*
455	*If the door open button is pressed during the hustle alarm period, the door open buttons remain operational and the doors can be opened. The door will change from opening to closing mid-cycle when the hustle period ends*	*Door control circuit to be modified during PRM modifications to disable local door control buttons as soon as the door close command is given by the driver*
700	*Door operation is currently being checked with*	*No further action likely*

	Siemens but is not thought to enable any operation once the driver has initiated the door close sequence	

14. GTR/Southern have a modifications programme in place for train fleets where a risk of the doors trapping a passenger in similar circumstances to West Wickham has been identified. The performance of the doors on other fleets are under review.

15. For some of the fleets, GTR/Southern are not proposing to make any modifications as they are due to be handed back to the ROSCO. ORR will need to ensure that if the rolling stock returns to service in future, the new operator is aware of the recommendations in the West Wickham RAIB report and carries out an appropriate risk assessment.

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

- taken the recommendation into consideration; and
- is taking action to implement it but has not yet provided ORR with a time bound plan

Status: *Progressing*

GWR

17. On 10 June 2016, GWR provided the following information:

Further to your letter of 22nd March, I contacted you on to 26th April and advised of the joint work being carried out by the ROSCOs and TOCs to investigate the national fleets and produce a report to meet a specification that is referred to in section 132 of the RAIB report. As the report was incomplete at the time of your letter, you agreed to extend the repose time to your letter to 10th June accordingly.

I can now confirm that the work has been completed and the report reviewed at the ATOC Technical & Standards Forum. Great Western Railway took part in the review which looked at the current door control system behaviour characteristics, the current standards for doors and some generic modification proposals.

The group of ROSCOs and TOCs was understandably keen to ensure common solutions across the whole industry and to have some coordination. To this end and to ensure that the range of solutions put forward in the report provide a cost / safety benefit, RSSB have agreed to carry out this analysis for the range of door modifications proposed in the Joint ROSCO report both on a national and a per-TOC basis.

Accordingly, Great Western Railway will take an active part in this evaluation and work with the ROSCOs and other TOCs to enact appropriate solutions.

18. GWR is engaged in on-going work with ROSCOs to assess the risks associated with each fleet and what modifications would be possible.

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

- taken the recommendation into consideration; and
- is taking action to implement it, but has not yet developed an appropriate solution

Status: *Progressing*

<u>London Midland</u>

20. On 10 June 2016, London Midland provided the following information:

With regards to West Wickham Recommendation 1, London Midland have reviewed the door operation characteristics of all their fleets and determined that the following vehicles display the features described within the report.

Class 150 – 3 x 2-car units

Class 319 – 6 x 4-car units

All other fleets are unaffected.

As we only operate a small number of vehicles which form part of much larger national fleets, our approach has been to work with the wider joint Rosco industry initiative to develop appropriate modifications. We have now received the final report and will be working with Angel Trains and Porterbrook to take the proposed modifications forward.

21. London Midland is considering what action to take through dialogue with ROSCOs and other TOCs.

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

- taken the recommendation into consideration; and
- is taken action to implement it through joint industry work, although a time-bound plan or milestones has not yet been provided

Status: *Progressing*

<u>London Overground</u>

23. On 9 June 2016, London Overground provided the following information:

Thank you for your letter and email of 4th May. As I confirmed in my email to you, LOROL operates a fleet of 14 class 317 units on its West Anglia routes and these trains are affected by the recommendation.

LOROL's response to your letter is as follows:

1. *Following the Urgent Safety Advice issued by RAIB, an investigation was commissioned by ROSCOs Porterbrook, Eversholt Rail Group and Angel Trains Limited*
2. *The investigation was to identify fleets that have similar characteristics in their door operation to the Class 465/1 EMU and thus could be susceptible to a similar incident, and propose modifications that could be made to affected classes to mitigate the risk. Porterbrook were the ROSCO leading the investigation, and the report was commissioned through CH2M Hill*
3. *Angel Trains Limited who lease LOROL's fleet of class 317 trains identified ttlat those trains have those design characteristics. In particular the doors have the following characteristics:*
    a. *Door open buttons that remain available after train crew initiated closure; and*
    b. *Doors that can revert suddenly whilst opening during the hustle period and increase in speed and/or force when the local open push button is operated during the hustle period*
4. *Porterbrook have been feeding back progress on the report to ATOC Technical & Standards Forum (T&SF), where all TOC Technical Engineering leads convene quarterly*
5. *The report has now been formally issued out to the TOCs after being reviewed by the ROSCOs initially, and feedback given at T&SF*
6. *LOROL is now reviewing the outcome of the report in conjunction with the RSSB 'Making Safety Decisions' model to decide whether it is appropriate to make the necessary modifications to remove the risk, using information on the cost of modification provided by the ROSCOs and safety data on the risk expressed in terms of Fatalities and Weighted Injuries per year provided by RSSB. It is worth bearing in mind that the class 317 units will be replaced in two years by the new class 710 units on West Anglia and so that will be a factor that will be taken into account in the tool*
7. *We expect to complete the review by the end of June 2016 and will share the outcome with you when it is finalised and decisions made*

24. For their fleet of class 317s LOROL are not proposing to make any modifications as they are due to be handed back to the ROSCO. ORR will need to ensure that if the rolling stock returns to service in future, the new operator is aware of the recommendations in the West Wickham RAIB report and carries out an appropriate risk assessment.

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

- taken the recommendation into consideration; and
- is being challenged by ORR to consider what actions would be necessary to implement it before the units are replaced in service

Status: *Progressing*

Southeastern

26. On 13 April 2016, Southeastern provided the following information:

Thank you for your letter of 22 March in relation to Recommendation 1 of this report. London & South Eastern Railway Ltd (LSER) accepts this recommendation and has already implemented actions as follows:

LSER reviewed passenger door operation on its entire fleet of trains (classes 375/3, 375/6-9, 376, 395, 465/0-1, 465/2 and 466) and established that the issues identified by RAIB in relation to the passenger doors only existed on classes 465/0 and 465/1 "BREL Networker" trains.

Following this, LSER designed and implemented a modification programme to remove the ability for passengers to open the saloon doors after the driver has pressed the 'door close' button. The scope of the modification involves the installation of an additional relay in the door closed circuit. This modification was completed on the 465/0 and 465/1 fleets between 9 November 2015 and 19 January 2016 and effectively meets the recommendation by preventing the doors from being operated during the door closing cycle.

Whilst the modification removes the ability to open the doors, the passenger push buttons do remain illuminated (although inactive) for the duration of the 3 second hustle alarm period. To address this, LSER is bringing forward an existing planned modification to add a PRM-TSI compliant door sounder to the doorways. At the same time a limit switch will be added to the doors to ensure that they cannot start closing until they are fully open.

'First of class' fitment is scheduled for 9 May 2016, with a completion for full fleet fitment in July 2017. This will prevent doors closing rapidly in the event that they are operated shortly before the closing cycle is initiated.

LSER believes that these actions fully meet the intent of the recommendation and completely eliminate the hazard of doors closing rapidly, with force and without warning identified by RAIB.

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

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

Status: *Implemented*

Northern

28. On 10 June 2016, Northern provided the following information:

With reference to your letter dated 22nd March 2016 advised to the previous franchise operator and subsequent update advised to the Arriva Rail North [Northern]. Northern offer the following response on actions to satisfy Recommendation 1 of RAIB Report 03/2016 issued February 2016.

Following the incident NIR 3136 was issued to the industry by the operator of the train involved on 20th April 2015. This advised of the potential to trapping persons or objects in the closing doors in a particular sequence of door operation. Initial checks on the Northern fleet indicated a similar door operation sequence is present within the door control logic from vehicle build and design.

A full investigation conducted by cross ROSCO/TOC partnership has identified fleets that present the potential to trap passengers or objects in doors similar to that exhibited in NIR 3136. Northern fleets identified are 142, 144, 150/1, 150/2, 153, 155, 156, 158, 319, 321 and 322. Northern have fully co-operated with vehicle access to facilitate testing and information gathering on potential system modifications to remove the risk.

The ROSCO commissioned report has been presented to the TOC community via ATOC forums on 24th May 2016. The report contains options to remove the risk of door sequencing as seen at West Wickham from the national fleets that exhibit similar door control logic. This includes modifications to unit wiring. Northern are currently in dialogue to evaluate which option to recommend for implementation based upon fleet type and risk. This work will be completed in conjunction with RSSB and Taking Safe Decisions guidelines. This process is ongoing. Northern will undertake to update the ORR when a final decision has been taken. This will include predicted start and finish dates if modification work is to be undertaken.

Northern acknowledge the potential risk the door logic sequence presents to our customers.

Northern operation is predominantly short train with two car units diagrammed on a majority of services with a lower number of three and four car operations. Dispatch is by station and on-board traincrew that undergo regular assessment and competence checks. Particular attention is given to

the door closing operation and passenger safety. Northern have also recently undergone a RM3 inspection exploring train dispatch conducted by ORR.

A review of Northern reported incidents indicates no trap and drag occurrence in the last five years of operation involving the 'at risk' fleets have been documented.

29. Northern is considering what action to take through dialogue with ROSCOs and other TOCs.

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

- taken the recommendation into consideration; and
- is taken action to implement it through joint industry work, although a time-bound plan or milestones has not yet been provided

Status: *Progressing*

ScotRail

31. On 5 May, ScotRail provided the following information:

At the time of the incident Scotrail worked with the industry to understand the root cause and the affected fleets, we have been in regular contact through ATOC to establish the most effective solution and have been working collaboratively with the industry. The industry have jointly commissioned a review of the door control system behaviour characteristics, and are investigating the practicability of modifications to remove the ability of passenger doors to open during the closing cycle.

There are 3 modifications proposed and Abellio Scotrail are working with each ROSCO to establish the most suitable modification for each fleet.

Abellio Scotrail attended a joint industry meeting to review proposals at ATOC on 28 April 2016. Following this review Abellio Scotrail is planning to work with each ROSCO to develop the technical Instruction to implement the most suitable modification. We will apply the taking safe decisions model to ensure modification is appropriate.

It is our intention to have technical solutions developed by December 2016.

32. ScotRail is reviewing available options through dialogue with the three ROSCOs they lease rolling stock from along with other TOCs.

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

- taken the recommendation into consideration; and
- is exploring options to modify the door closing system on affected fleets

Status: *Progressing*

South West Trains

34. On 9 June 2016, South West Trains provided the following information:

SSWT has fully engaged with ongoing industry work regarding door operations relating to the West Wickham incident. Working with the ROSCOs, we have reviewed the passenger door operation of our fleet to identify those where the passenger door open controls remain available after train crew initiated closure. Of the trains operated by SSWT, a number are affected by the changes proposed by recommendation 1. These are:

- *Class 158 and 159 (41 units, 112 vehicles)*
- *Class 456 (24 units, 96 vehicles)*
- *Class 455 (91 units, 364 vehicles)*

The SSWT fleets not affected are:

- *Class 458/5 (36 units, 180 vehicles)*
- *Class 444 (45 units, 225 vehicles)*
- *Class 450 (127 units, 508 vehicles)*
- *Class 707 (36 units, 180 vehicles)*

Two train modifications have been initially developed that could be applied to the SSWT affected fleets. Modification 1 removes the ability for passengers to initiate a door open during close cycle, Modification 2 ensures that any passenger initiated door open will fully open door even if initiated during the close cycle. SSWT believes that application of either of these modifications will address the requirements of recommendation 1.

SSWT is currently in the process of assessing the relative benefits, and other risks (e.g. performance risk) relating to these two modification s to assess how we will proceed. It should be noted that further design and development work is required before either modification can be applied to the fleet . At this time SSWT is already committed to progressing a number of fleet improvements to be delivered before its franchise end in 2017. Any additional train modification work that requires units to be stopped will have an adverse impact on fleet availability for passenger service, so we are carefully considering what opportunities exist to progress any modification along with other planned work.

However, SSWT recognises the importance of pursing the mitigation of this risk through other means whilst the assessment of options regarding door operation modifications is being progressed. The circumstances of the West Wickham incident are considered as part of the management of wider PTI risks.

Every platform at which SSWT services call has been fully assessed in regards to the PTI risk. These actions range from local management improvements to infrastructure improvements, SSWT are working closely with Network Rail to progress those actions which require funding from the Infrastructure Manager. A

guards route handbook has been produced which details the local PTI characteristics of each platform

All SSWT services are dispatched by the guard, assisted in many locations by train dispatch staff. Whilst dispatch staff are aware of the wider platform-train interface risks, we are now in the process of establishing a working group to look specifically at 'trap and drag' risk with a specific objective to raise awareness of how individual actions could contribute to such an incident. This working group consists of representatives from across the guards, stations and fleet functions, with involvement from our health and safety representatives

35. SWT have developed two modification programmes for class 158/159, 455 and 456 although no timescales yet provided.

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

- taken the recommendation into consideration; and
- is taking action to implement, but has not yet provided ORR with a time-bound plan

Status: *Progressing*

Recommendation 2

The intent of this recommendation is to increase the opportunity for seeing incidents and accidents at the platform-train interface during the train dispatch process, therefore reducing the risk that a train departs with a passenger in an unsafe position. Although continuous monitoring of all doors is preferable during this period, the recommendation acknowledges that this is sometimes impracticable (eg if staff cannot see all doors at the same time).

The RSSB, in consultation with the railway industry, should include in suitable guidance that train crew undertaking dispatch duties should, where practicable, monitor train doors during the door closing period. This is additional to the existing railway rule book requirement for a train safety check after doors are fully closed.

ORR decision

37. By reviewing the RIS relevant to train dispatch and monitoring of the PTI, RSSB is taking steps to address the risk of passengers becoming trapped in train doors. RSSB wish to provide train operators with greater clarity on train dispatch procedures and PTI risk, as the current version of the RIS was being misinterpreted by industry as applying only to infrastructure managers. RSSB are planning to publish the revised RIS-3703-TOM in December 2017.

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

- taken the recommendation into consideration; and
- are taking appropriate action to implement it, but have not yet provided ORR with a time-bound plan.

Status: *Progressing*

Steps taken or being taken to address the recommendation

39. In its response of 24 November 2016, RSSB provided the following summary of work they have done around the monitoring of train doors during the door closing period:

> ***Period 12 update:***
>
> *An outline of the incident and Recommendation 2 was presented to TOMSC at its 1 March 2016 meeting. TOMSC requested that a subgroup be established to consider the issue in full. We will report further once this has been done.*
>
> ***Email to ORR, 20 April 2016:***
>
> *RSSB has discussed the recommendation at TOM SC, which decided to establish a subgroup to consider both it and Platform Train Interface (PTI) issues in the round. The subgroup's first meeting has been set for 10 May 2016. It will work in conjunction with the PTI Strategy Working Group, whose focus themes for 2016/17 include 'trap and drag' and improved competence management.*
>
> ***Period 2 update:***
>
> *No update has been received from TOMSC as the 10/05/16 meeting was cancelled. However, the PTI Strategy Group noted a number of workstreams at its April meeting, which move towards satisfying the recommendation:*

RECOMMENDATION RESPONSE	*LEAD/NOTE*
1. RED 45: reconstruction of trap and drag.	*PTISIG/TORG*
2. Right Track: series of related articles that build upon learning points 1-3 that have emerged from the investigation (see Appendix B).	*PTISIG/TORG*
3. Platform Safety: The facts and your role: this booklet contains guidance for all dispatch in relation to visual checking and not relying on interlock indicators.	*Completed*
4. RSSB Non-Technical Skills training course: inclusion of West Wickham as a case study, along with other relevant PTI incidents relating to NTS.	*Underway*

5. *Non-Technical Skills Integration Guide: inclusion of West Wickham as a case study when reissued in September 2016. This guide will also include information on how organisations can develop NTS in train driver instructors/managers etc. and how NTS can be maintained for safety critical roles within the workplace.*	*Completed*
6. *T1064 Developing tools to extend non-technical skills to non-driver roles: due to be published in November 2016. This project covers dispatch staff.*	*PTISIG*
7. *RSSB driver training course: inclusion of further case studies within the tailored elements of the course to ensure that sufficient emphasis is placed on the operators risk profile.*	
8. *Risk-based training needs analysis (RBTNA) toolkit: encouraging the use of the tool across the industry.*	*Promotion work amongst PTISIG*
9. *Project 15/021: scope of project to be expanded to ensure all of the learning from the West Wickham accident and other similar accidents are incorporated into Rail Industry Standard RIS-3703-TOM.*	*RSSB Rail Ops*

Period 5 update:

At the TOMSC's 14 July 2016 meeting, RSSB presented proposals to review RIS-3703-TOM (Passenger train dispatch and platform safety measures) in light of the recommendation. The object of the proposal is to provide greater clarity on train dispatch procedures and impact PTI risk. It has been recognised that the RIS as written was being misinterpreted by industry as applying only to infrastructure managers. TOMSC approved the proposal and the high priority afforded to it.