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

Dear Andrew,

RAIB Report: Self-detrainment of passengers onto lines that were still open to traffic and electrically live at Lewisham, south-east London on 2 March 2018

I write to report¹ on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 25 March 2019.

The annex to this letter provides details in respect of the recommendations. The status of recommendations 1 and 2 is '**implementation on going**'; and the status of recommendations 3, 4 and 5 is '**progressing**'.

We will publish this response on the ORR website on 25 March 2020.

Yours sincerely,

Oliver Stewart

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

Initial consideration by ORR

1. All 5 recommendations were addressed to ORR when the report was published on 25 March 2019.
2. After considering the recommendations ORR passed the recommendations to Network Rail and Southeastern asking them to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below.
3. ORR also brought all 5 recommendation to the attention of all other TOCs as it was concluded that that there are equally important lessons for them. ORR did not ask these organisations to provide a reply.

Recommendation 1

The intent of this recommendation is to identify practical opportunities to improve train service resilience when conductor rail ice risk is forecast.

Network Rail (South East route) and Southeastern, should undertake a holistic review of their seasonal preparedness arrangements for winter taking into account the actions already taken or in progress as result of this incident. This should have the objective of maximising operational resilience and minimising the risk of train stranding incidents that could lead to unsafe passenger detrainment. In so doing it should consider the effectiveness of existing and proposed mitigation measures (for instance conductor rail heating and the running of de-icing trains), and the criteria for their use, taking into account the criticality of locations to operational performance. The review should also include consideration of operational strategies, such as the key route strategy, and encompass train routeing strategies designed to enhance operational resilience during winter weather and avoid the unnecessary blocking of key junctions. Strategies and practices used by other metro-type railway operators should be considered. Network Rail and Southeastern should jointly implement changes that are identified as beneficial

ORR decision

4. Network Rail (SE route) and Southeastern have carried out a review of their seasonal preparedness arrangements and identified a number of actions around both prevention (con-rail forecast, Snow & Ice Treatment Trains) and mitigation (improved communication between and placement of incident response staff). The plan initially submitted was due for completion in November 2019, but has since been extended to July 2020.
5. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail (SE route) and Southeastern have:
 - taken the recommendation into consideration; and

- is taking action to implement it by 31 July 2020.

Status: Implementation ongoing. ORR will advise RAIB when actions to address this recommendation have been completed.

Information in support of ORR decision

6. On 29 May 2019 Network Rail and Southeastern provided the following joint initial response:

Action Plan

Network Rail (South East route), in conjunction with Southeastern, undertook a detailed review of their seasonal preparedness arrangements in readiness for winter 2018/9.

At the time of publishing this action plan, the South East route with Southeastern, have already completed the following actions:

- *Commissioned an independent investigation (“Sowden/AD Little”) coupled with assurance activity on action completion.*
- *Improved con-rail forecast, e.g. by removing low risk conditions (hoar frost) from “Red Risk” category.*
- *Revised AM strengthening plan, Key Route Strategy (KRS) lite and KRS for implementation in snow and ice (includes reduced junction working, no split/attach and increased service frequencies).*
- *Multi-purpose vehicle/Snow and Ice Treatment Trains (SITTs): circuits and coverage spread throughout day to ensure there are no gaps around crew changes (gaps had existed around peak times).*
- *Mapped high risk sites.*
- *Updated seasonal matrix with improved mitigation against high risk conditions and clearer decision points.*
- *Fitters placed with Mobile Incident Officers.*
- *Improved conference call process implemented including strategic and tactical level conference calls with set agendas.*

Actions to be completed:

1. *Following a review into operational best practice on other metro-style railways. LUL practices have been identified (Code Red and Code Amber radio protocols) which will be reviewed for applicability and implementation on the SE Route.*
2. *Complete a Conductor Rail and winter mitigation measures review using Mott Macdonald, focusing on recommendations and next steps regarding the effectiveness of conductor rail heating and possible expansion, Southeastern and MPV / SITT fleet effectiveness at clearing ice, anti-ice*

materials deployed and anything that we can learn from the approach of other rail networks worldwide.

3. *Complete work on the potential use of ice breaker shoes on passenger trains. Both the actions that have been completed, and planned actions will be shared at the Head of Operations Delivery meeting and with the train operating companies through the joint NR/RSSB/RDG workstream on stranded trains.*

Completion date 30 November 2019.

7. On 5 November 2019 Network Rail advised of a timescale extension until 31 July 2020. The reason for the extension is as follows:

I have spoken to Daniel Matthews about the ice breaker shoes for Southeastern. To enable fitment on to a planned 2 units, so ideally require 48hrs notice which we will implement (or not) based on weather forecast predicted conditions – a process to cover this will be put into the Winter Working Arrangements. We do not believe this is a suitable mitigation for wider deployment as fitment comes with some significant downsides and risks. I've attached the Southeastern process covering deployment. This part will be closed once the winter working arrangements are finalised. The E&P RAM team are preparing a remit for the response to the Mott Macdonald report as funding is available for this. The remit will inform a workstream which will result in formalisation of our Conductor Rail Heating asset approach. Once this is completed we will need to consider what changes we will need to make to assets but I regard that the RAIB action will be closed once the workstream is completed as response to it will fall into BAU.

Recommendation 2

The intent of this recommendation is to ensure that signallers and drivers respond in a timely manner to events that have the potential to result in a train being stranded or held at a signal for an extended period of time.

Network Rail (South East route) and Southeastern should work in conjunction with RSSB to provide suitable instructions and guidance to operations staff to help them determine when a train should be considered as stranded (as a result of it being unable to move, or make adequate progress), the timeframe within which this needs to be declared and the actions that then need to be taken. They should develop and publish suitable instructions, and where appropriate update the Rule Book.

ORR decision

8. Network Rail (South East route) and Southeastern have implemented processes designed to help signallers, drivers and controllers identify when a train is struggling to make progress because of the weather and communications to identify mitigation. The plan initially submitted was due for completion in November 2019, but has since been extended to July 2020.

9. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail (SE route) and Southeastern have:

- taken the recommendation into consideration; and
- is taking action to implement it by 30 September 2020.

Status: *Implementation ongoing.* ORR will advise RAIB when actions to address this recommendation have been completed.

Information in support of ORR decision

10. On 29 May 2019 Network Rail and Southeastern provided the following joint initial response:

Action Plan

This point was considered in the review undertaken by Network Rail (South East route) and Southeastern. The following actions were undertaken in time for winter 2018/9:

- *An “ice call” process was implemented and briefed to signallers, drivers and controllers to enable heightened reporting and awareness of the criticality of urgent response when a train is struggling to make progress*
- *A stranded passengers “pitstop” process and updated control instructions have been created and briefed. These provide clear accountabilities/ responsibilities to drive appropriate, timely actions.*

Actions to be completed:

Network Rail (South East route), and Southeastern, will work with the RSSB to identify how existing instructions and local processes (such as ice call) can be formalised and if necessary rolled out nationally. Through this work it will be identified whether national rules change would be beneficial.

An initial meeting has been set up in May 2019 to establish a small working group. Currently the intention is to publish changes in September 2019 ready for winter 19/20 with subsequent Rule Book change, if necessary, in line with the March or September 2020 publication dates.

Southeastern have also reviewed their instructions and will finalise and publish a revised company policy on Meeting the needs of Stranded Passengers.

Both planned and completed actions will be shared at the Head of Operations Delivery meeting and with train operating companies through the joint NR/RSSB/RDG on stranded trains workstream

Completion Date: 30th November 2019 (further extension required if a Rule Book change is required).

11. On 5 November 2019 Network Rail advised of a timescale extension until 30 September 2020. The reason for the extension is as follows:

For the Rule Book amendment - wording has been prepared by RSSB – to be reviewed and finalised at a meeting on 8th November. If acceptable, the change will be proposed to TOMSC with the aim of publishing in the Rule Book for June 2020.

Southeastern's stranded trains document: This went back to Se CSRG two weeks ago for approval, containing amendments following Dan Matthews' observations and some changes regarding additional equipment ie toilets! The document was accepted and will be published in December. The document is just being appropriately formatted following these changes and I'll share a copy when I have it.

Recommendation 3

The intent of this recommendation is to ensure that information that is critical to the operation of the railway is communicated to the correct role within the KICC in an accurate and timely manner, as highlighted by the reasons for miscommunication identified in paragraph 129.

Network Rail (South East route) and Southeastern should continue their joint review of the processes for decision making, communications and the handling of information with and within the KICC. They should make enhancements so that:

- the functional responsibilities of the individual roles within the KICC, and the information important to them, are defined and make arrangements to ensure that staff clearly understand;
- the appropriate lines of communication between signalling staff and KICC staff are defined, and incorporated in the method of working, and make arrangements to ensure that staff clearly understand; and
- within the KICC, information critical to the operation of the railway is made visible to, or communicated to, the relevant responsible role in a timely manner.

ORR decision

12. Network Rail (South East route) and Southeastern have identified a number of actions following their joint review of the processes for decision making, communications and the handling of information with and within the Kent Integrated Control Centre (KICC).

13. We have asked Southeastern to demonstrate that by discharging the actions communication arrangements at the KICC have been improved, such as providing evidence of testing new processes and procedures and if they been demonstrated to be better.

14. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail (South East route) and Southeastern have:

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

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

Information in support of ORR decision

15. On 1 June 2019 Network Rail and Southeastern provided the following updated joint initial response:

Action Plan

Network Rail (South East route), in conjunction with Southeastern, have completed the following actions:

- *Review of communications in control*
- *Updated Controller Communications Handbook*
- *RACI defined and briefed to control, forming part of competency assessment process for South East route and Southeastern*
- *“Ice Call” process to support urgency and clarity of action*
- *Signalbox direct line telephones to the Control office have been checked to ensure that calls are placed to the correct desks in the Control. This action was completed recently on 30th May 2019*

These actions will be shared at the Head of Operations Delivery meeting.

Recommendation 4

The intent of this recommendation is to improve the availability of Southeastern staff that are competent to support train crews in the event of a railway incident at locations other than in station platforms. This complements recommendation 2 in RAIB report 16/2018 that was placed on Network Rail (South East route) to enable provision of appropriate support to staff on the ground, such as train crew.

Southeastern, in consultation with Network Rail (South East route), should review its arrangements and resources for assisting train crews in managing, informing and reassuring passengers on trains that are stopped at locations remote from station platforms. It should make any changes that are necessary to provide sufficient numbers of suitably trained staff who are competent to access the track and support the managed evacuation of trains. It should also clarify when and how these staff will be deployed

ORR decision

16. Southeastern have identified a number of actions to improve their communication with passengers in the event of a train becoming stranded.

17. We have asked Southeastern how robust the process for deploying Railway Enforcement Officers (REOs) is, how quickly can they be deployed to an incident and if the plan is supported by a risk assessment.

18. We have also asked Southeastern if REOs are given any training to help with a detrainment.

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

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

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

Information in support of ORR decision

20. 29 May 2019 Network Rail and Southeastern provided the following joint initial response:

Action Plan

Southeastern have completed the following actions:

- *Conducted passenger journey mapping exercises to understand the options available to keep passenger information flowing to passengers on stranded trains.*
- *Strengthened our ability to make remote announcements directly to trains from the Control Centre using GSMR by re-training the teams responsible for using this equipment. We are also re-siting them to a more central position in our control centre move during August 2019.*
- *We have strengthened face to face communication by a programme of briefing for all Drivers, Conductors and OBMs that took place in late 2018/early 2019 and has been incorporated into training for new staff.*

Actions to be completed:

- *Southeastern are creating guides for railway staff, emergency services etc who may be on board a stranded train, which we plan to issue to all Se and NR staff by 31st August 2019*

Southeastern maintains a group of 60 Railway Enforcement Officers who are primarily aimed at revenue enforcement tasks, but also have Personal Track Safety certification and can access the track to assist stranded passengers. The REO teams cover extended early and late shifts and provide staff for two response vehicles alongside mobile teams. They are geographically based at locations across our network and teams are mobile whilst on shift, coordinated by a 24/7 position in the Kent Integrated Control Centre. The REO team carry the Airwave radio system and we are re-briefing them to act as both a reassuring presence onboard and as a communications conduit between control and stranded passengers.

Completion Date: 31 August 2019

Recommendation 5

The intent of this recommendation is to ensure that the essential needs of train passengers are reasonably met in the event that they need to stay on board for an extended time as result of a foreseeable extreme weather event.

Southeastern, in consultation with Network Rail (South East route) as appropriate, should continue its review of the adequacy of the systems and facilities on each type of train it operates as they relate to alleviating the risk that passengers decide to detrain from trains that have been stranded for extended periods of time. This should include consideration of toilet use, heating, ventilation, passenger information, food and drink, and take into account the practice of other metro-type railway operators. It should then review its seasonal preparedness and make arrangements to provide any additional facilities, provisions and information that passengers need in an emergency resulting from an extreme weather event.

ORR decision

21. We have asked Southeastern to confirm if the work to fit door barriers has been completed.

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

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

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

Information in support of ORR decision

23. *29 May 2019 Network Rail and Southeastern provided the following joint initial response:*

Action Plan

Southeastern and Network Rail (South East route) have jointly reviewed seasonal readiness and resource planning, which now forms part of a structured decision-making process beginning four days ahead of a predicted severe weather event. We have updated our 'Winter Matrix' of pre-planned actions covering all areas of Southeastern and Network Rail (South East) operations.

After reviewing the facilities and systems on our existing train fleet, Southeastern now have the following placed at strategic locations around our network:

- *Bottled water,*

- *Food (energy bars),*
- *Foil blankets for warmth,*
- *Light Sticks for lighting,*

Actions to be completed:

- *Although it is not normal practice for metro operators to provide toilets on trains, Southeastern, with Network Rail (South East route) is reviewing the feasibility of providing emergency use toilets to stranded passengers. The review will be completed by 31st August 2019 and appropriate next steps planned by 31st August 2019.*
- *Provision of barriers which allow passenger doors to be opened for ventilation (to be in place by 31st August 2019).*

These supplies can be moved to site by Network Rail's mobile response teams or by Southeastern staff either by road or by train.