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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: Passenger injury at Ashton-under-Lyne tramstop on 12 March 2019

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 28 November 2019.

The annex to this letter provides details of actions taken in response to the recommendations and the status decided by ORR. The status of recommendation 1 is **'Implemented'**. The status of recommendation 2 is **'Progressing'** and the status of recommendations 3 & 4 is **'Implementation on-going'**.

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 30 November 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 4 recommendations were addressed to ORR when the report was published on 28 November 2019.
2. After considering the recommendations ORR passed all the recommendations to Keolis Amey Metrolink 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 recommendations 2 & 3 to the attention of tram infrastructure owners and operators, Nexus (Tyne & Wear Metro), Strathclyde Passenger Transport and LRSSB as it was concluded that that there are equally important lessons for them. ORR did not ask these organisations to provide a reply.
4. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

The intent of this recommendation is to minimise the risk of accidents at the platform-tram interface by improving drivers' observation of the interface, as trams depart from tram stops.

KAM should complete the provision of the instructions to tram drivers about the correct use of the side-view CCTV monitors when departing from tram stops so that, where appropriate, drivers continue to scan the interface as the tram starts to move. These revised instructions, contained in the updated rule book, should be briefed to all tram drivers, and incorporated into the training and assessment procedures used within the driver management function within KAM.

ORR decision

5. KAM have rebriefed their tram drivers on the correct use of side-view CCTV monitors, as set out in the Driver Rule Book.
6. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, KAM has:
 - taken the recommendation into consideration; and
 - has taken action to implement it

Status: Implemented.

Information in support of ORR decision

7. On 24 February 2020 Keolis Amey Metrolink provided the following initial response:

The correct use of side view CCTV monitors when departing tram stops is prescribed in the revised Driver Rule Book. Specifically, Section 2, sub-section 2.2.4. (See appendix 1). These safety instructions were re-briefed to drivers on 11th February 2020. KAM-0366C.03 refers. (See appendix 2). Nine, Driver Team Managers have recently been established. As part of the ongoing monitoring of driver competency, the provisions which relate to the use of side view CCTV monitors will form part of the assessment criteria. SM-CMP-CMSD refers. (See appendix 3).



Appendix 1.pdf



Appendix 2.pdf



Appendix 3.pdf

Recommendation 2

The intent of this recommendation is for tram drivers to have improved visibility of any passengers near trams at tram stops.

KAM should:

- (a) carry out a review of the lighting conditions at tram stops to identify any local lighting conditions, taking into account backgrounds, which may make it difficult for tram drivers to see passengers in close proximity to the tram, particularly during night-time operations.
- (b) implement the findings of the review, in conjunction with TfGM, to improve the visibility of passengers at the platform-tram interface (e.g. by improving platform lighting and/or tram CCTV systems).

This recommendation may apply to other light rail operators in the UK.

ORR decision

8. Our review of the initial response from KAM concluded that the recommendation had not been properly addressed as KAM had focussed on compliance with the 50 Lux standard, rather than review lighting conditions at tram stops which may make it difficult for drivers to see passengers in close proximity to the tram.

9. KAM have since provided an update stating they will carrying out a review of tram stops where there may be a risk of local lighting conditions impacting a driver's ability to see passengers in close proximity to the tram, which is expected to be completed by the end of 2020.

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

- taken the recommendation into consideration; and
- is taking action to implement it, but ORR has yet to be provided with a timebound plan.

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

11. On 24 February 2020 Keolis Amey Metrolink provided the following initial response:

The Design & Construction Specification for Tram Stop Lighting is that:

a) during operational hours, platforms and ramps shall be lit to a minimum of 50 Lux maintained average illuminance in accordance with RSP2 and good practice and with a uniformity factor of 0.5. Outside of operational hours platforms and ramps shall be lit to a minimum of 25 Lux maintained average illuminance and with a uniformity factor of 0.5. Other areas of TPL Stops shall be lit to a minimum of 25 Lux maintained average illuminance and with a uniformity factor of 0.5

As part of KAM's contractual obligation with TfGM to maintain lighting assets to this Standard a programme of planned maintenance has been established. The programme will review the condition of all such assets and illumination levels on a 2-year cycle against this Standard. The Ashton-under-Lyne tram stop will be the first in this programme, commencing February 2020.

Additionally, as tram side mounted CCTV cameras are a safety critical device, we are assessing the efficacy of increasing the cleaning frequency of these items.

12. On 17 September 2020 Keolis Amey Metrolink and Transport for Greater Manchester provided the following joint update:

With regard to recommendation 2, following receipt of the RAIB's report and recommendations, KAM undertook a review of the lighting levels at a number of stops across the network to assess compliance with the Design & Construction Specification for Tram Stop Lighting.

With hindsight, it is apparent that the intention of this recommendation had not been fully understood and the actions taken did not adequately address the recommendation. We therefore propose to undertake a further study of tram stops where there may be a risk of local lighting conditions impacting a driver's ability to see passengers in close proximity to the tram. We aim to complete this review before the end of the year and will work collaboratively to address any significant findings. We propose to write to you early in the new year to provide a progress update.

Recommendation 3

The intent of this recommendation is that tram drivers are better able to manage the safety of impaired passengers, particularly around the platform-tram interface.

KAM should undertake a risk-based review of the actions which tram drivers should carry out if they encounter an impaired passenger. This review should consider the well-being of both the staff member and passenger. Once completed, the output of the review should inform guidance for staff. This guidance should be incorporated

into the training and assessment procedures used within the driver management function within KAM.

This recommendation may apply to other light rail operators in the UK.

ORR decision

13. The initial response to the recommendation from KAM did not include evidence of a suitable and sufficient risk assessment having been carried out, but did identify some control measures for tram drivers if they encounter an impaired passenger. KAM are now carrying out a risk assessment and have agreed to report its finding to ORR by 11 December 2020. We will provide RAIB with an update in due course.

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

- taken the recommendation into consideration; and
- is taking action to implement it by 11 December 2020

Status: Implementation on going. 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 24 February 2020 Keolis Amey Metrolink provided the following initial response:

A risk-based review has been undertaken. The outcome is guidance for staff, which is included within the new Driver Rule Book, sections 1.9; 2.2.5; 2.3; 7.3; 7.12 refer. The drivers have also received a briefing on the action to take if they should encounter a vulnerable or impaired passenger, which was included in the safety brief 0366C (03).

16. On 17 September 2020 Keolis Amey Metrolink and Transport for Greater Manchester provided the following joint update:

As requested, please find enclosed evidence of the risk-based review undertaken as required by recommendation 3. This review was undertaken as part of the development on the new KAM Driver Rulebook which is also enclosed.



Copy of Rule book
review and risk asse



KAM 001 Rule Book
Inners-Final - MARC

Recommendation 4

The intent of this recommendation is to improve the communication between North West Ambulance Service and KAM, to reduce risk to both staff and passengers.

North West Ambulance Service and KAM should jointly develop and agree communication protocols so that each organisation is aware of the other's intentions and actions when dealing with incidents and accidents which affect Metrolink operations. The protocols should aim to reduce overall risk to both staff and passengers and should be communicated to all relevant levels within both organisations.

ORR decision

17. KAM have set out jointly agreed communication protocols in its draft MOU with North West Ambulance Service (NWAS). ORR has reviewed the communication protocols and consider them to be suitable and sufficient. KAM expect to be able to confirm by early December that the protocol has been agreed, at which point we will provide RAIB with an update.

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

- taken the recommendation into consideration; and
- is taking action to implement it by 4 December 2020

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

Information in support of ORR decision

19. On 24 February 2020 Keolis Amey Metrolink provided the following initial response:

A draft protocol between North West Ambulance Service (NWAS) and KAM has been created. This is currently under consultation with the expectation that it will be implemented in its substantive form as soon as practicable. (See Appendix 5)



Appendix 5.pdf

20. On 17 September 2020 Keolis Amey Metrolink and Transport for Greater Manchester provided the following joint update:

In relation to recommendation 4, further work has taken place between KAM and North West Ambulance Service (NWAS) and a meeting was held on 25th August 2020 to review the draft Memorandum of Understanding (MoU) document and to consider the comments in your letter. These comments have now been included within the revised draft document which has been endorsed by NWAS. It is expected that the MoU will be finalised and implemented in early October 2020. Once the document is finalised we will share a copy with you in order for the recommendation to be considered as "Implemented". A copy of the revised draft is enclosed.



KAM and NWAS
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