

Recommendation(s) Status: Passenger trapped in train door at Newcastle Central Station

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of implementation of the recommendations, as reported to us, has been divided into six categories:

Key to Recommendation Status

Implemented:	All actions to deliver the recommendation have been completed.
Implemented by alternative means:	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
Implementation ongoing:	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
In-progress:	The relevant safety authority has yet to be satisfied that an appropriate plan, with timescales, is in place to implement the recommendation; and work is in progress to provide this.
Non-implementation:	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
Awaiting response:	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concerns on actions taken by organisations in response to recommendations are reflected in this report and are indicated by one of the following:

-  The red triangle shows recommendations where the RAIB has concerns that no actions have been taken in response to a recommendation.
-  The blue triangle shows recommendations where the RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.
-  The white triangle shows recommendations where the RAIB notes substantive actions have been reported, but the RAIB still has concerns.

Note: The tables which follow, report the status of recommendations on 31 December 2015. In some other cases the end implementer has already sent information to the relevant safety authority about the actions it has taken, or proposes to take and the safety authority is considering whether it is satisfied that those actions and the associated timescales are accepted.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on latest report from the relevant safety authority or public body)
<p>1 05/06/2013 19/2014</p> <p>Passenger trapped in train door at Newcastle Central Station</p> <p>Status: Implementation ongoing</p>	<p>The intent of this recommendation is to reduce the risk to passengers due to trapping and dragging incidents by taking into account the learning from this accident.</p> <p>Operators of Siemens UK Desiro trains fitted with electrically operated sensitive edges should re-assess the risk of injuries and fatalities due to a trapping and dragging incident in light of failures identified in this report and take appropriate action to reduce the risk. This should take account of historical data, the incidents highlighted in this report and precursor events to trapping and dragging. This risk assessment should take into account observed passenger behaviour (eg by monitoring passenger attempts to reopen closing doors) and estimated human error rates within the dispatch process (paragraph 143b).</p>	<p>ORR has reported that Operators of Siemens UK Desiro trains have reported that they have taken actions in response to this recommendation.</p> <p>ORR is seeking further information.</p>
<p>2 05/06/2013 19/2014</p> <p>Passenger trapped in train door at Newcastle Central Station</p> <p>Status: Implemented by alternative means</p>	<p>The intent of this recommendation is to reduce the risk to passengers due to trapping and dragging incidents by modification of future door designs.</p> <p>Siemens should redesign the doors, as used on the Class 185 and other similar units, for future vehicles supplied to the UK, to reduce the probability of a passenger being trapped in them but not detected by the door control system. This could be achieved by redesigning the sensitive edges or by other means (paragraph 143b).</p>	<p>ORR has reported that Siemens has reported that it has taken actions (by alternative means) in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>3 05/06/2013 19/2014</p> <p>Passenger trapped in train door at Newcastle Central Station</p> <p>Status: In-progress</p>	<p>The intent of this recommendation is to reduce the risk to passengers due to hazards from trains supplied by Siemens which are either discovered at the design stage, or that subsequently emerge during service.</p> <p>Siemens should review and, where appropriate, improve their design processes to ensure that they fully identify record and assess hazards associated with the design of their trains. The train operator, or those with operational experience, should be involved in the hazard identification and review process to ensure that this is considered in any design decisions. Any hazards identified following the design phase should be fully assessed, including consideration of the potential for redesign to manage the residual risk. Where this is not practicable, the operator of the train and/or the maintainer should be made aware of the hazard and the residual risk so that suitable mitigation measures and monitoring arrangements can be put in place.</p> <p>Siemens should also seek to ensure that it is kept aware of</p>	<p>ORR has reported that Siemens has outlined the actions to be taken in response to the recommendation.</p> <p>ORR is seeking further information.</p>

problems that emerge during service so that the need for subsequent design modifications can be assessed as necessary (paragraph 99).

4 05/06/2013 19/2014
Passenger trapped in train door at Newcastle
Central Station
Status: Implemented

The intent of this recommendation is to reduce the risk to passengers due to hazards from trains operated by First TransPennine Express by implementing a process for the logging of hazards and the management of risk associated with each. It is also intended that the recording of hazards should be sufficiently visible to its staff so that awareness of them is maintained, possible precursors established (eg near-misses) and monitored and regularly re-assessed.

First TransPennine Express should continue to review and, where appropriate, improve its safety management processes to ensure that it has a system for the identification and recording of hazards, assessment of the risk associated with each, and management of the implementation of any necessary control measures. By means of these processes, FPTE should:

- a) manage risk associated with the original design features of the trains it operates, and those that emerge during operations, inspections and maintenance, or when changes are made to equipment and operational practice (paragraph 110);
- b) develop a time bound programme for the implementation of control measures that have been identified; and
- c) track the implementation of any control measures, including those identified during its station risk assessments (paragraph 150).

This recommendation may be applicable to other train operating companies.

ORR has reported that First TransPennine Express has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

5 05/06/2013 19/2014
Passenger trapped in train door at Newcastle
Central Station
Status: Implemented

The intent of this recommendation is to reduce the risk to passengers due to trapping and dragging incidents by ensuring that door obstruction detection systems on new trains, both in the UK and Europe, cannot be readily overcome.

RSSB should recommend to the British Standards Institution (BSI) that in the forthcoming BS EN version of the European standard (EN 14752 Railway applications - Bodyside Entrance Systems for rolling stock) the UK National Foreword informs readers of the possibility of entrapment even on correctly adjusted doors that comply with the specified obstruction tests (paragraph 161). Additionally, RSSB should recommend to the

ORR has reported that RSSB has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

**Number/ Date/ Report No/
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Safety Recommendation

**Summary of current status (based on latest report
from the relevant safety authority or public body)**

BSI that in the formal vote on this emerging European standard, it includes a request to review the obstruction test requirements to reduce the probability of trapping and dragging and to make reference to either this investigation report, or the urgent safety advice issued by the RAIB to the European Rail Agency (ERA) on 24 October 2013, reference 665/02 on ERA's Safety Information System (paragraph 154).

6 05/06/2013 19/2014

Passenger trapped in train door at Newcastle Central Station

Status: In-progress

The intent of this recommendation is for RSSB to consider what additional data needs to be captured within its Safety Management Information System (SMIS) to allow a more complete evaluation of the risk of trapping and dragging events on the national network.

RSSB should identify any additional data that should be captured within SMIS from incidents of persons trapped by train doors, who are outside the train which subsequently moves, whether this results in injury or not. This data should be collected and used by railway undertakings to monitor such events and inform decisions to reduce this risk (paragraph 130).

ORR has reported that RSSB has outlined the actions to be taken in response to the recommendation. ORR will continue to monitor implementation of this recommendation.