

Recommendation(s) Status: Runaway of an engineering train from Highgate

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 13/08/2010 09/2011</p> <p>Runaway of an engineering train from Highgate</p> <p>Status: Implemented</p>	<p>This recommendation is intended to provide sufficient and appropriate inputs to the future introduction of new and modified engineering trains and rail mounted plant.</p> <p>LUL should, with assistance from Tube Lines, review and, where necessary, amend processes and practices so that adequate design, checking, approval and testing is provided for new and modified engineering trains and rail mounted plant. The processes and practices should include specifying and allocating sufficient staff with appropriate qualifications, defining the individual responsibilities and providing effective coordination between them (paragraphs 216b, 216d, 216e, 216f, 220a and 220b).</p>	<p>LUL has reported that it has taken actions 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>2 13/08/2010 09/2011</p> <p>Runaway of an engineering train from Highgate</p> <p>Status: Implemented</p>	<p>This recommendation is intended to identify and remedy any existing approvals where the extent of specialist inputs may have been insufficient to provide reasonable assurance of compliance with the standards applicable at the time of approval.</p> <p>In respect of engineering trains and rail mounted plant supplied by (or through) TransPlant: LUL should, with assistance from Tube Lines, review all existing approvals to determine whether the inputs to the approval process were sufficient to give reasonable assurance that adequate safety standards are met by safety critical equipment, operating procedures and documentation. If inputs were insufficient to give this assurance, LUL, with assistance from Tube Lines, should introduce a time-bound process to implement the measures needed to comply with appropriate safety standards (paragraphs 216b, 216d, 216e, 216f, 220a and 220b).</p>	<p>LUL has reported that it has taken actions 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 13/08/2010 09/2011</p> <p>Runaway of an engineering train from Highgate</p> <p>Status: Implemented</p>	<p>This recommendation is intended to provide sufficient experienced staff involvement to the investigation of allegedly defective equipment so that lessons are learnt from equipment malfunctions before these result in an accident.</p> <p>LUL should, with assistance from Tube Lines, review and, where necessary, amend the processes and practices used to investigate allegedly defective equipment. This review should cover the specification and implementation of adequate testing and the assessment of both defects and test results (paragraph 217).</p>	<p>LUL has reported that it has taken actions 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>

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4 13/08/2010 09/2011 Runaway of an engineering train from Highgate Status: Implemented	This recommendation is intended to clarify the responsibilities of, and provide adequate instructions and training for, people involved in the recovery of engineering trains and rail mounted plant. The training process should include a means for identifying and resolving any problems, or improvements, identified during the training. LUL should, with assistance from Tube Lines, review and clarify the responsibilities of all staff who may be involved in the recovery of engineering trains and rail mounted plant. Where necessary, processes should be implemented to provide these staff with appropriate instructions, training and practice. This training process should include appropriate actions to be taken if problems, or possible improvements, are identified during training (paragraphs 216c, 218, 219 and 220c).	LUL 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 13/08/2010 09/2011 Runaway of an engineering train from Highgate Status: Implemented	This recommendation is intended to minimise the risks associated with the operation of unbraked vehicles at the end of trains. LUL should, with assistance from Tube Lines, provide guidance and instructions to ensure a safe system of work to recover vehicles with defective or ineffective braking (paragraphs 216a, 216b and 220a).	LUL 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.
6 13/08/2010 09/2011 Runaway of an engineering train from Highgate Status: Implemented	The intention of this recommendation is to identify any shortcomings in the quality assurance processes applied to organisations supplying TransPlant with plant and equipment including design services. LUL should audit Tube Lines' supplier quality assurance system, as applied to TransPlant's suppliers, with particular emphasis on ensuring that responsibilities for design, checking and approval are clearly defined and then allocated only to people and organisations which have been verified as having the necessary competencies. LUL should close out this audit after ensuring that Tube Lines have undertaken any necessary corrective actions (paragraph 221).	LUL 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.
7 13/08/2010 09/2011 Runaway of an engineering train from Highgate Status: Implemented	The intention of this recommendation is to identify any shortcomings in the quality assurance processes applied within LUL in relation to the supply of safety critical design services by Tube Lines and organisations working for Tube Lines. LUL should review the level of assurance provided by LUL's audit regime for the design elements of safety critical services	LUL 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.

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provided to LUL, by Tube Lines and its suppliers. If the existing audit regime does not provide an adequate level of assurance, LUL should introduce a time-bound process to implement the measures needed to achieve an adequate level of assurance (paragraph 221).

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