

Recommendation(s) Status: Incident at Greenhill Upper Junction, near Falkirk

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 22/03/2009 04/2010</p> <p>Incident at Greenhill Upper Junction, near Falkirk</p> <p>Status: Implemented</p>	<p>The purpose of this recommendation is to make it clear in maintenance documentation that if installation work covered by maintenance testing arrangements is partially carried out, off site, as pre-work, the work should be independently tested so far as is practicable at that stage. The extent of the testing should be confirmed on a written record that is available for those completing the testing following site installation. A tester should be in overall charge of the testing as required by current standards.</p> <p>While maintaining the requirement that one maintenance tester should be in overall charge of the testing, Network Rail should revise its maintenance documentation such as the SMTH to make it explicitly clear that if installation work is carried out off site in advance of site work, this pre-work should be tested if practicable at that stage (paragraphs 204a, b and 208d).</p>	<p>Network Rail 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 22/03/2009 04/2010</p> <p>Incident at Greenhill Upper Junction, near Falkirk</p> <p>Status: Implemented</p>	<p>The purpose of this recommendation is that for planned project work such as the HW1000 point machine renewal project in Scotland, testing should be planned in advance and not left to the time of site installation.</p> <p>Network Rail should revise its procedures so that where planned project work is carried out under the SMTH, the arrangements for testing of the completed works (and any partially completed works) should be planned and documented in advance and briefed to those undertaking the work prior to the commencement of those works (paragraphs 204c, 206a and 208c).</p>	<p>Network Rail 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 22/03/2009 04/2010</p> <p>Incident at Greenhill Upper Junction, near Falkirk</p> <p>Status: Implemented</p>	<p>The purpose of this recommendation is to make clear in maintenance documentation the correct intent and method of carrying out points testing.</p> <p>In respect of points testing, Network Rail should clarify and brief their staff as to:</p> <p>a. whether or not the signaller's indications should be monitored during the out of correspondence test (paragraphs 204d and 209a);</p> <p>b. the method of carrying out the detection test of HW type point machines (paragraph 209b); and</p> <p>c. the need to continually monitor the detection relays during the manual operation of points when the out of correspondence test</p>	<p>Network Rail 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>

is being carried out. The points should be moved at a rate that allows any false operation of the relays during their travel to be observed (paragraph 209c).

4 22/03/2009 04/2010
Incident at Greenhill Upper Junction, near Falkirk
Status: Implemented

The purpose of this recommendation is the creation of a process suitable for the installation and testing relating to small-scale enhancement projects, requiring a limited change in the design, such as the HW1000 point machine renewal project in Scotland whose scope had to be reduced to fit the requirements of maintenance testing. The process would contain less onerous requirements than in works testing but more onerous requirements than in maintenance testing.

Network Rail 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.

Network Rail should consider the introduction of a process that is suitable for planned small-scale enhancement projects of the type originally conceived for the HW1000 point machine renewal project in Scotland. Consideration should be given to the inclusion of the following elements in any new process:

- l a project specification;
- l the issue of design drawings;
- l a strategy for the testing, including the resources required;
- l the appointment of the tester in advance;
- l a written test plan; and
- l a system that documents the completion of specific stages of the testing (paragraphs 205a, 208a, b, c and d).

5 22/03/2009 04/2010
Incident at Greenhill Upper Junction, near Falkirk
Status: Implemented

The purpose of this recommendation is to enhance the system under which records of work carried out under the SMTH are made, in order to provide better traceability and auditability of what has been done.

Network Rail 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.

Network Rail should review the adequacy of the system of written records arising from work carried out under the SMTH so that the completion of specific stages of work covered by the SMTH gives rise to specific records of what has been done (paragraph 208a).

6 22/03/2009 04/2010
Incident at Greenhill Upper Junction, near Falkirk
Status: Implemented

The purpose of this recommendation is to improve the system by which copies of maintenance drawings, marked with handwritten annotations showing alterations, are updated.

Network Rail 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.

Network Rail should revise its current system for the updating of amended maintenance drawings with the aim of reducing the time taken to do so. This should include prescribing clear

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timescales in standards (paragraph 209d).

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