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SwP 011/15

Signal T2865 post collapse – initial SwP*

Infrastructure Projects

* prior to Formal Investigation Findings



Background

Western Mainline Signalling renewals were remitted to renew signalling on Western Mainline routes to Bristol, Oxford and Newbury by 2015, in advance of electrification in 2016 and ETCS between 2019 and 2025.

In order to achieve the required timescales, to facilitate the funding of ETCS and as a consequence of ETCS signals away date of 2026, the scheme was based on a worktype (42) which required the re-use and retention of equipment, particularly structures, which were not foul of the OLE gauge and had at least 15 years residual life. Signal heads and associated lineside equipment were to be replaced.

Surveys were undertaken by 2 suppliers during GRIP 4 in 2011 and identified the condition of all structures.

Reading Outer B&H (Southcote to Newbury) re-signalling , was commissioned on 3rd November 2014, with 65 existing structures retained.

On Tuesday 11th November 2014, Western Route control received a report of a structure having 'failed'.

Immediate investigation revealed that a retained structure had failed at the base of its post and collapsed onto the track.



Conditions surrounding the failure

The post supporting signal T2865 failed catastrophically, causing the signal to fall onto the Up and Down Westbury lines.

Inspection of the failure revealed significant corrosion occurring around and below the ballast line.

The weather conditions were fair, with light wind.

There was no advanced warning that the structure was about to fail other than signs of corrosion of the post and ladder.

Project delivery technicians had accessed the signal head some weeks earlier with no issues reported.

The ladder was to be replaced as part of the post commissioning works.

As well as the GRIP 3 surveys, the structure was also subject to an annual inspection.



Action Required, Taken and Lessons Learnt

All retained signal structures on the Reading Outer Scheme were subject to an immediate inspection.

Bristol, Oxford and Swindon re-signalling projects advised and immediate inspections of retained structures undertaken.

A new temporary signal was erected and operational within 24 hours.

A fully functioning temporary signal was commissioned within 7 days.

A new permanent replacement is in progress.

RAIB and the ORR are currently undertaking investigations which have yet to be concluded.

Key Initial Lessons Learnt

- ▶ **Inspections to determine the life of a structure need to fully assess the condition of the entire post and fixings, including any elements not immediately visible. A simple visual inspection is not sufficient.**
- ▶ **Any issues identified shall be reported to Route Control immediately.**

Further Information...

For any further details or information please contact:

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