Certificate of Derogation from a Railway Group Standard

(in accordance with part 6 of the Railway Group Standards Code)

1. Type of deviation

Deviation Number: 12/181/DGN

Derogation

2. Details of applicant:

Network Rail (LNW South), The Quadrant: MK, Furzton, Floor 3,
Desk 054, Elder Gate, Milton Keynes, MK9 1EN

3. Your reference number:

Tracker No. 10365

4. Status of applicant:

Infrastructure Manager, RSSB Member

5. Title of certificate:

Signal WS6299 exceeding 800m for signalling of a divergence.

6a. Details of Railway Group Standard (RGS):

RGS Number:	Issue No:	Issue Date:	Title:
GK/RT0045	Two	March 2012	Lineside Signals, Indicators and Layout of Signals

6b. RGS clause(s):

3.1.1.4

6c. RGS clause requirements:

"3.1.1.4 Stop signals controlling movements through diverging junctions shall be positioned not more than 800 m from the first set of facing points, except where either:

a) The facing points are operated from a ground frame.
b) The stop signal is positioned parallel with other stop signals, one of which is positioned within 800 m of a set of facing points and there are other factors that prevent the positioning of stop signals closer to the junction.
c) The facing points are always set in the same position for facing moves from the stop signal.
d) The facing points are secured out of use (see GC/RT5021).
e) A distance temporarily greater than 800 m is associated with planned engineering stage-works, and details of the excess distance are published in accordance with GO/RT3215."

7. Scope of deviation:

Junction Signal WS6299 and associated splitting banner signal protecting Trent Valley No. 1 Junction, provides route information to either the Down Slow or the New Down Stafford Goods Loop, exceeding the 800 m rule for signalling of a divergence.

8. Impacts of complying with the current RGS requirement:

The factors preventing WS6299 from being positioned closer to the new divergence are:

- Rickerscote OLE Neutral section exclusion zone is between 840 m and 500 m from the new divergence
- Achieving compliant signal sighting. 5 seconds uninterrupted cannot be achieved between 500 m and 320 m from the new divergence (320 m is the distance from the new divergence to a 225 m overlap length clear of the RBS3 clearance point).

To achieve compliance with the 800 m rule, the signal would either need to be positioned in the Neutral section (as it is today) or ahead of the neutral section, where compliant sighting cannot be achieved and the overrun risks, with the proximity of Trent Valley No. 1 Jcn, would be intolerably high.

9. Proposed alternative actions:

The Stafford Area Improvements project is proposing to position signal WS6299 (the replacement for SD4-95 signal) 845 m from the first divergence, exceeding the standard allowance by 45 m.

The only divergence between WS6299 and the signals ahead is to a new facility into a new Goods Loop, the use of which will be very infrequent.

Note: The existing signal (SD4-95), whilst protecting Trent Valley Junction, does not have a divergence today. The Goods Loop arrangement is being introduced in parallel with the resignalling scheme. The purpose of the new Goods loop is for freight regulation or to berth trains that have activated the HABD detectors at Penkridge and Milford. Usage is expected to be light/sporadic, particularly from the RBS3 lines direction.

10. Impacts of the alternative actions:

There is the potential for a driver to forget that they have been signalled for the 30 mph Goods Loop and not the 60 mph Down Slow. To mitigate these concerns, the project is reinforcing the positive indication of the route to the Goods Loop with an MAY-FA approach and a splitting banner on the junction signal.

Additional benefits of moving the signal further away from Trent Valley No. 1 Junction are:

- By also adjusting the position of WS6297 (the signal approaching WS6299), signal spacing can be regularised.
- The TPWS protection is effective for all line users with respect to protecting a SPAD at WS6299 from reaching the converging conflict at Trent Valley No. 1 Jcn.
- The signal, and its associated splitting banners can be better sighted at the new proposed position.

11. What other options have been considered?

The signal cannot be positioned closer to the divergence because:

- The signal must not be positioned within the OLE Neutral section. The existing signal is in the neutral section today and trains experience start-up problems because they are being driven from the rear pantograph on a regular basis.
- The signal cannot be positioned ahead of the neutral section because it is not possible to achieve compliant sighting and the overrun risks would be intolerably high.

The alternative solution is to relocate Rickerscote OHNS, but estimates for relocating the Rickerscote OLE Neutral section have been sought, with preliminary costs being circa £100k per line. With three lines affected (Neutral Sections must remain parallel), the overall cost is in the region of £300k. With signalled moves from WS6299 into the Goods Loop being infrequent, the cost to achieve compliance seems disproportionately high compared to the extent of the non-compliance (45 m).

Signal Sighting Committee have confirmed on site that the signal cannot be sighted between the OLE exclusion zone and the junction clearance point. (Note: Linespeed is 95 mph and to achieve sighting time would require the 60 mph through the junction to be extended back 300 yards to the signal which cancels out the benefits of moving signal closer to junction).

12. Consultation with affected parties

WS6299 signal was reviewed at the project Detailed Assessment (16-17/04/2012).

New position for WS6299 signal of 845 m from divergence proposed to SSC. TOC/FOC/Ops support the proposal on the grounds that there is no alternative if the neutral section cannot be relocated.

With the cost and disruption associated with relocating Rickerscote OHNS deemed prohibitive, the proposal to position the junction protecting signal south of Rickerscote has been accepted by Operations and TOC/FOC signal sighting committee members as the only viable option going forward.

The resignalling scheme is in GRIP 4, with a proposed MSRP date of 31/05/2012.

13. Additional actions/observations:

Upon receipt, the applicant is required to identify affected, interfacing parties and copy this certificate, together with supporting information, to those parties.

Attachment:

- Consultation report Ref. SDG\WS6299\124131\GS4 Issue 1.0 of September 2012: WS 6299 Signal poition – Project Stafford Area Improvements (124131)
- Drawing WS 6299 Banner Release.
- Signal sighting Form:
  - Down Penkridge line: WS 6295, WS 6297, WS 6297 BR, WS 6299, WS 6299 BR
  - Stafford Goods Loop: LS 4311.

14. Method of elimination:

N/A

15. Start and end date:

N/A

16. Signature of applicant:

(Signals), Head of Signal Engineering

Date of application:

02/10/2012

17. Lead Standards Committee details:

Name of Committee:	Date of meeting	Minute reference:
Control Command and Signalling	08/11/2012	12/CCS/11/226

Authorised by:

Signed by Jeff Allan on 27/11/2012

Date of Authorisation:

27/11/2012

Jeff Allan
Head of Delivery, Control Command & Signalling, and Energy