



## Certificate of Derogation from a Railway Group Standard

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

### 1. Type of deviation

Derogation

Deviation Number: 12/210/DGN

### 2. Details of applicant:

Network Rail (Crossrail),  
Elder Gate, Milton Keynes, MK9 1EN

The Quadrant: MK, Furzton, Floor 3, Desk 054,

### 3. Your reference number:

Tracker No. 11746

### 4. Status of applicant:

Infrastructure Manager, RSSB Member

### 5. Title of certificate:

SN199 AWS Position.

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

<b>RGS Number:</b>	<b>Issue No:</b>	<b>Issue Date:</b>	<b>Title:</b>
GE/RT8035	Two	March 2012	Automatic Warning System (AWS)

### 6b. RGS clause(s):

2.2.1.7 and 2.2.1.10

### 6c. RGS clause requirements:

"2.2.1.7 Subject to compliance with the requirements of 2.2.1.4, 2.2.1.5, 2.2.1.6 and 2.2.4, AWS track equipment for signals shall be positioned 180 m (tolerance +10%, -5%) before a signal, except as set out in 2.2.1.8, 2.2.1.9 and 2.2.1.10."

"2.2.1.10 Where there is a conflict between the position of a signal and the position of the AWS track equipment such that it is not possible to position both optimally, then the positioning of the signal shall take precedence."

### 7. Scope of deviation:

SN199 is on Down Relief Line located 4 3/4m + 6ch on MLN1. The proposed AWSs will be on Down Relief and Down Goods lines - (see attached plan extract).

### 8. Impacts of complying with the current RGS requirement:

To provide a compliant solution would require SN199 not to be repositioned at this stage, and proposed signal spacing would not be achievable due to signal spacing constraints, or the temporary junction positioned towards London, which would mean the required standage would not be achieved on the Goods Lines.

Both options would have significant cost in implementation when compared to a minor increase in AWS distance.

**9. Proposed alternative actions:**

The AWS magnets for SN199 will be positioned at approximately 220 m on the Down Relief and approximately 240 m Down Goods Line as recommended by the Signal Sighting Committee.

The alternative position has been chosen to allow the magnets to be clear of APC zones and clear of S&C that would prevent fitment in the 4ft.

**10. Impacts of the alternative actions:**

Impact of alternative action meets all of the requirements of 2.2.1.4, 2.2.1.5, 2.2.1.6 and 2.2.4, but does increase the time and distance to greater than that defined in 2.2.1.7.

It is recognised that, due to train drivers using signal AWS position to assist with stopping at signals, the distance is important and, if the magnet cannot be placed at the standard distance, a longer distance is generally better than a shorter one. When passing a yellow aspect, drivers are told to slow to a speed appropriate to stop from the AWS when the AWS sounds the train is then braked to a stand. This is particularly important at night where the distance to the signal is very difficult to judge. For passenger trains, the yellow to AWS speed is about 25 mph and for freights is 5 or 10 mph. Due to the S&C, a compliant solution is not possible, the above is the reason for selecting a position at a greater distance than the standard requirement rather than one that is less than the standard (147 m as shown on the scheme plan).

This position has been endorsed by SSC as per 2.2.1.11 as the most suitable position.

**11. What other options have been considered?**

The original option was to position magnet at 147 m from SN199 signal as part of the endorsement process, when applying GE/RT8035 clause 2.2.1.11. This option was discounted as request is from the TOC/FOC SSC representatives. This option would mean the distance would be shorter than most other magnets on the Down Relief, and could increase SPAD risk on the signal.

**12. Consultation with affected parties**

- HEX
- FGW
- DBS
- West Coast Railway.

Have all since reconfirmed their SSC requirement with the knowledge of the extended time between AWS sounding and passing SN199 (see attachment email thread).

Signal Sighting Form is being amended to formally record endorsement of proposed position by the TOC/FOC members of the SSC.

**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.

Attachments:

- Extract sketch of proposed position of SN199 AWS (1) & (2)
- Email correspondence between Network Rail and DB Schenker of 06/11/2012 Re SN191/9 drl Acton
- Signal Sighting Form.

**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:**

Control Command and Signalling

**Date of meeting**

06/12/2012

**Minute reference:**

12/CCS/12/254

**Authorised by:**

Signed by Jeff Allan on 10/01/2013

**Date of Authorisation:**

10/01/2013

Jeff Allan

Head of Delivery, Control Command & Signalling, and Energy