



## 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: **12/121/DGN**

### 2. Details of applicant:

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

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

### 3. Your reference number:

Tracker No. 10682

### 4. Status of applicant:

Infrastructure Manager, RSSB Member

### 5. Title of certificate:

Platform Countdown Markers at  $\frac{3}{4}$ ,  $\frac{1}{2}$  and  $\frac{1}{4}$  mile on the approach to a station

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

RGS Number:	Issue No:	Issue Date:	Title:
GI/RT7033	Two	October 2009	Lineside Operational Safety Signs

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

Section AK and B10, B10.1, B10.2, B10.3 & B10.4

### 6c. RGS clause requirements:

Section AK

Miscellaneous Signs

Sub-section 1: Miscellaneous signs subject to the recommendations of a Signal Sighting Committee

Sub-section 2: Other signs.

Please see GI/RT7033 Appendices for further detail.

“B10 Proposals for new designs of sign

B10.1 Signs required, but not currently included in this document

Where a sign is required for a purpose that is within the scope of this document, but is not currently included, the duty holder concerned shall advise RSSB by submitting a proposal for a new design of sign and a change to this document, as set out in GA/RT6001.

The proposal shall include artwork to a standard comparable with that used in the appendices to this document. Section B10 sets out specific requirements to be applied to new designs of signs. These requirements are in addition to the requirements set out in sections B6 and B8.

## B10.2 Presentation and shape of new designs of signs

For new designs of signs related to the safe operation of trains, duty holders shall reinforce the intended purpose by use of the following shapes, either for the sign itself or as a symbol contained within a rectangular or circular shape:

- a) a circular sign or symbol shall be used to denote an instruction
- b) a triangular sign or symbol, apex upwards, shall denote a warning, for example, a hazard or an advance indication of an instruction beyond
- c) a rectangular sign or symbol shall be used for the display of information.

For new designs of signs for other purposes, the presentation and the shape of the signs is determined by the legislation and the regulations in force. Otherwise the principles set out in this section shall be applied.

## B10.3 Use of colour for new designs of signs

### B10.3.1

For signs for the safe operation of trains, the colour of the signs shall be determined as follows:

- a) a red border shall be used to denote an instruction; the instruction shall appear as black pictogram/text on a white background
- b) a yellow border shall be used to denote a warning; the instruction shall appear as black pictogram/text on a white background
- c) a black border shall be used for the display of information; the instruction shall appear as black pictogram/text on a white background.

### B.10.3.2

For signs for other purposes, the colour of the signs shall be determined by the legislation and the regulations in force. Where this is not applicable, the following rules shall be applied:

- a) instructions for the public and staff at the trackside shall appear as white pictogram/text upon a red background; the border, if used, shall be white
- b) warnings for the public and staff at the trackside shall appear as black pictogram/text upon a yellow background contained within a black border
- c) information for the public and staff at the trackside shall appear as black pictogram/text upon a white background, usually contained within a black border.

## B10.4 Contrasting colours for new designs of signs

For signs within the scope of this document, duty holders shall use the following colours:

<b>Colour</b>	<b>Contrasting colour (if required)</b>	<b>Symbol colour</b>
Red	White	Black
Yellow	Black	Black
Purple	White	White
Blue	White	White
Green	White	White
Grey	Black	Black

These colour combinations are as set out in BS 5378-2: 1980.”

## 7. Scope of deviation:

Network Rail Scotland Route.

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

Network Rail and First ScotRail propose the design of an alternate new sign not currently included in RGS GI/RT7033 as required by section B10 of that RGS.

First ScotRail (in association with Network Rail Scotland Route) is seeking ways to reduce station overruns and instances of 'fail to call' where misjudgement of braking distance is a factor.

Sign AK102 allows for markers from 300 m on the approach to a location (with additional markers up to 600m if required). These signs are considered insufficient distance from the station to give drivers advance information of a station that could be difficult to stop at.

## 9. Proposed alternative actions:

Network Rail and First ScotRail proposes countdown markers at  $\frac{3}{4}$ ,  $\frac{1}{2}$  and  $\frac{1}{4}$  mile intervals on the approach to a station. This will provide drivers with additional information and, in some cases, a landmark by which they can judge their braking distance.

- Design of Signs:  
Sign AK102 has been used as a basis for the station approach signs - although dimensions have been modified to allow inclusion of a place name.  
The station approach sign to have a white reflective background (Class 1 reflectivity or better) with black lettering and red numerals (approximate text spacing shown). Rounded edges to the corners are recommended.  
The outer board to show  $\frac{3}{4}$  mile, the second board to show  $\frac{1}{2}$  mile, the third board to show  $\frac{1}{4}$  mile. The boards to be placed at their respective distances from the location.  
See specifications in attached Appendix A.
- Positioning of signs:  
Signs to be placed trackside. The outer board should have 2 seconds readability at the highest possible speed on the approach to the station (a signal sighting committee can modify this requirement). The installation of these signs would comply with section B4 of GI/RT7033.
- Conditions:  
The station approach signs may be used in conjunction with AK102 if recommended that 300 m, 200 m and 100 m interval markers are required on the final approach to a station.

## 10. Impacts of the alternative actions:

Additional sign applicable to First ScotRail trains only.

First ScotRail views the use of station approach markers as one of the measures for mitigating against station overruns and instances of 'fail to call' where misjudgement is a factor. First ScotRail is continuously reviewing its Professional Driving Policy and route learning documentation over affected routes to brief locations that may be difficult to stop at.

Detail below provides some relevant statistics from the Network Rail Wessex Route where overruns have generally reduced since the introduction of station approach markers to provide a reference point for drivers to judge their braking.

At locations where station approach markers are provided in other Network Rail Routes, some locations have seen a significant reduction in station overruns:

- Chandlers Ford - Installed October 2005: No further station overruns
- Whimple - Installed February 2006: Prior thirteen overruns, since one overrun (2008 - late braking)
- Rowlands Castle - One station overrun in 2010 (driver forgetting station stop)
- Liss - No further overruns/SPAD's attributed to misjudgement
- Only Earley continues to suffer station overruns (four in 2009, three in 2010, two in 2011 [to date]), although there was an initial reduction after installation of signage.

South West Trains application (certificate no. 11/162//DGN) is similar in scope to that applied for here against GI/RT7033 for station approach countdown markers.

## 11. What other options have been considered?

Sign AK102 was considered but is not appropriate to give advanced information to drivers of an approaching station.

**12. Consultation with affected parties**

Network Rail and First ScotRail are seeking derogation against GI/RT7033. This derogation would also allow First ScotRail and Scotland Route to install similar signs at other locations if this is deemed an appropriate mitigation, and only where there are high instances of station overruns. Other users of affected routes will be consulted in each case through the medium of the Scotland OPSRAM meeting.

The current proposals for the signs at Milliken Park and Howwood stations are recommendations from First ScotRail local safety working groups. Both these locations have a high instance of station overruns and instances of 'fail to call'.

Installation of signs at Milliken Park and Howwood stations was agreed at Scotland Route OPSRAM on 22/02/2012.

**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.

Attachments:

- Scotland Platform Countdown Markers (Appendix A).

**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:**

20/07/2012

**17. Status in respect of National Technical Rules:**

GI/RT7033 Issue 2 is currently on the list of National Technical Rules under the:

- Control Command and Signalling (published) Conventional Rail TSI
- Control Command and Signalling (published) High Speed Rail TSI.

**18. Status in respect of National Safety Rules:**

GI/RT7033 Issue 2 is not on the list of the proposed National safety Rules under the Conventional or High Speed Rail TSIs.

**19. Lead Standards Committee details:****Name of Committee:**

Control Command and Signalling

**Date of meeting**

16/08/2012

**Minute reference:**

12/CCS/08/155

**Authorised by:**

Signed by Jeff Allan on 29/11/2012

**Date of Authorisation:**

29/11/2012

Jeff Allan

Head of Delivery, Control Command & Signalling, and Energy