

Rail Safety and Standards Board

Certificate of Temporary Non-compliance from a Railway Group Standard

(in accordance with Section 6 of the Railway Group Standards Code issue 3)

1. Type of deviation:

Temporary Non-compliance

Deviation Number: **08/218/TNC**

2. Details of applicant:

Senior Policy & Standards Engineer [Signals], Signal Engineering, C/O
Floor, Desk 22, Network Rail, 40 Melton Street, London NW1 2EE

3rd

3. Your reference number:

5748

4. Status of applicant:

Infrastructure Manager, RSSB Member

5. Title of certificate:

WL61 Signal's Route Indication for Ryecroft Junction (retention of existing Pos. 2 PLJI).

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

RGS Number:	Issue No:	Issue Date:	Title:
GK/RT0031	Four	February 2002	Lineside signals and indicators

6b. RGS clause(s):

B9

6c. RGS clause requirements:

"B9 Position light junction indicator

B9.1 Description

B9.1.1 Orientation

A position light junction indicator indicates the route to be taken by the angle at which a line of lunar white light points is displayed. Permitted positions are shown in Figure 9.1.1.

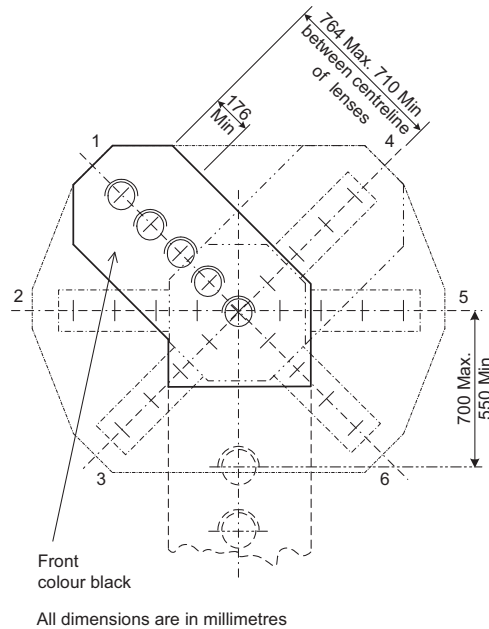


Figure 9.1.1 Junction indications

The indicators shall be positioned at 45°, 90° and 135° to the vertical and shall be positioned above the main aspect, except where permitted by GK/RT0037.

Indication	Meaning to Driver
No indication, signal ON	Obey main aspect
No indication, signal OFF	Obey main aspect, straight-ahead route is set
Position 1 indication, signal OFF	Obey main aspect, expect divergence to left
Position 2 indication, signal OFF	Obey main aspect, expect divergence to left more extreme than that for position 1 indication
Position 3 indication, signal OFF	Obey main aspect, expect divergence to left more extreme than that for position 2 indication
Position 4 indication, signal OFF	Obey main aspect, expect divergence to right
Position 5 indication, signal OFF	Obey main aspect, expect divergence to right more extreme than that for position 4 indication
Position 6 indication, signal OFF	Obey main aspect, expect divergence to right more extreme than that for position 5 indication

Table 4

B9.1.2 Restrictions on use

Position light junction indicators in diametrically opposing positions (1 and 6, 2 and 5, 3 and 4) shall be avoided where there is the potential for confusion. In such cases, consideration shall be given to the use of alternative methods of route indication. Diametrically opposing route indications can be particularly ambiguous where:

- a) a signal has a curved approach
- b) the main head is stepped forward from the position light junction indicator.

B9.1.3 Successive junctions

Where successive signals apply to diverging routes in the same direction and are equipped with position light junction indicators, the possibility of a driver becoming misled into taking the first junction indicator as applying to the junction beyond the second signal shall be taken into account. In such circumstances, the use of standard alphanumeric route indicators shall be considered.

B9.2 Application

B9.2.1 Meaning

Position light junction indicators shall usually be used in association with colour light signals for simple divergences to the left or right.

No indication shall be given for the straight-ahead route (usually the highest speed route) except that, where there is no geographically obvious straight-ahead route, a junction indicator shall be provided for all signalled routes.

It is permissible for signals to be equipped to display multiple indicators, according to the final destination relative to the main or straight-ahead route in the manner shown in Figure 9.2.1, commencing on each side at positions 1 and 4 as shown in Table 4.

Only one indication shall be displayed at a time.

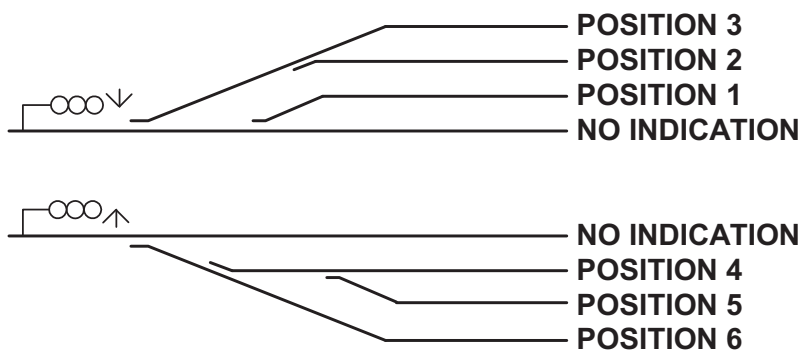


Figure 9.2.1 Examples of junction indications

B9.2.2 Controls

A position light junction indicator shall display an indication only when the controls for the associated signal permit the latter to display a proceed aspect.

Position light junction indicators shall be proved sufficiently lit to be visible before the associated stop signal is permitted to clear for a diverging route."

7. Scope of deviation:

The project signal WL61 proposes to retain the existing Pos. 2 PLJI even though the Pos 1 PLJI is currently out of use. Although strictly non-compliant to GK/RT0031, it is felt that the driver understands what the feather means, i.e. routed towards Bloxwich. The linespeed will be 40mph for both directions over the junction.

8. Impacts of complying with the current RGS requirement:

GK/RT0031 in table 4 defines a Position 2 JI as "Obey main aspect, expect divergence to left more extreme than that for position 1 indication"

The condition of the wiring in the area is subject to wire degradation and due to numerous 'minimal works' in the past, the signalling records do not accurately reflect the existing installation. Therefore, the TIC has insisted that full correlation of the signalling records is carried out before wiring alterations can be carried out. This would not be possible in time to improve the speeds through the junction in time for the December timetable change.

9. Proposed alternative actions:

The Position 2 indicator will be retained with the approach release timer "wound down" to 0 seconds until the signalling can be updated to provide a Position 4 PLJI for the other route and the Bloxwich route either becomes the "straight" route within the signalling or is provided with a Position 1 PLJI. This is planned to be complete by the end of November 2009

10. Impacts of the alternative actions:

It is considered that this submission has a low degree of severity. Any SPAD risk is offset by the fact that the route is fully protected with no signalled conflict due to flank protection. The approach speed is 45mph towards the junction with a straight route and divergence at the junction of 40mph would normally allow a free aspect therefore the provision of an approach release of 0s - although overly restrictive - is considered to be within the hierarchy of methods of junction control.

The junction has been risk assessed (SAT-DA) with no further mitigation proposed.

11. What other options have been considered?

Various combinations of linespeed have been considered and minimal wiring changes supported by a correlation waiver (dismissed as high risk).

12. Consultation with affected parties

Train operating companies (London Midland, EWS & Freightliner) All parties' driver reps have been invited to attend a risk assessment to assess the junction and the protecting signalling under the proposed arrangement.

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:

- SORA report Ref. 5044836/RY/RSK/001 version 1 dated 19/01/2008 - Signalling overrun Risk Assessment, Project Ryecroft Junction S&C Renewals
- Walsall station sketch layout
- 5 photographs on the approach to the junction

14. Method of elimination:

Final stage by November 2009 to provide compliant Pos 1 and 4 route indicators.

15. Start and end date:

From 07/12/2008 to 06/12/2009

16. Signature of applicant:

Head of Signal Engineering

Date of application:

05/11/2008

17. Status in respect of National Technical Rules:

GK/RT0031 is not on the list of the proposed NNTRs under the Conventional or High Speed Rail TSIs.

18. Status in respect of National Safety Rules:

GK/RT0031 is not on the list of the proposed National Safety Rules.

19. Lead Standards Committee details:

Name of Committee:	Date of meeting	Minute reference:
Control Command and Signalling	27/11/2008	08/CCS/11/312a

Authorised by:	Date of Authorisation:
Signed By Jeff Allan on 07/12/2008	07/12/2008

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