



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: **12/185/DGN**

2. Details of applicant:

Network Rail (Investment Projects), Network Rail
Furzton, Floor 3, Desk 054, Elder Gate, Milton Keynes, MK9 1EN

The Quadrant: MK,

3. Your reference number:

Tracker No. 11037

4. Status of applicant:

Infrastructure Manager, RSSB Member

5. Title of certificate:

Signals PT249 and PT449 Distance to Llanelli East Level Crossing.

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

RGS Number:	Issue No:	Issue Date:	Title:
GK/RT0192	One	February 2010	Level Crossing Interface Requirements

6b. RGS clause(s):

2.1.1.3

6c. RGS clause requirements:

"2.1.1.3 Stop signals and ETCS block markers shall be positioned at least 50 m from the level crossing, except where either:

- a) The level crossing is immediately beyond a station platform, in which case the stop signal or ETCS block marker associated with the platform shall be positioned at least 25 m from the level crossing, or
- b) The signalling system is configured so that movement authorities towards the stop signal or ETCS block marker are only displayed when the level crossing is closed to road traffic."

7. Scope of deviation:

Signals PT249 and PT449 protecting Llanelli East Crossing situated at 225 miles 14 chain, Pilning to Fishguard Harbour (ELR SWM2).

8. Impacts of complying with the current RGS requirement:

The Llanelli project will involve the renewal of Llanelli East MCB-CCTV and Llanelli West MCB to MCB-OD and the control of these crossing transferred from Llanelli West Ground Frame to Port Talbot Power Signal Box.

Llanelli East level crossing is to be converted to MCB-OD operation. The level crossing protection signals are positioned as shown below:

- PT249 Up main is positioned 22 metres from Llanelli East level Crossing.
Should PT249 be repositioned 3 metres further from Llanelli East crossing, the signal would not provide the required standage for the train service using Llanelli station, due to train standing on Llanelli West crossing.
- PT449 Dn Main, wrong direction move from the Dn main platform to the Up main is 13 metres from Llanelli East Level Crossing.
Should PT449 be repositioned 12 metres further from Llanelli East crossing, the signal would not provide the required standage for the train service using Llanelli station for the reversing move over 960 points.

Due to the close proximity of Llanelli station, these signals can't be moved due to the train service and the type of train stock being used.

9. Proposed alternative actions:

Signal PT249 is proposed to stay at 22 m from the level crossing, with the provision of SPAD mitigation provided but Stowmarket controls as detailed below.

Stowmarket Controls: The RTL's shall illuminate automatically in a normal sequence with Amber followed by flashing reds when a train approaches within 100 m of the crossing. If the route forward is set, the crossing sequence shall continue with barriers lowering and this shall be the normal method of operating the crossing. PT249 will be provided in by providing this additional protection the possibility of avoiding a SPAD is improved.

PT449 signal will not be provided with any additional SPAD mitigation as no signalled moves approach this signal. Moves from this platform are from a standing start and will be controlled by the provision of TRS buttons to the signaller at Port Talbot and good sighting on PT449.

10. Impacts of the alternative actions:

All practical mitigations have been considered and applied to the scheme plan.

Due PT249 signal provision of SPAD mitigation any impacts of the reduction in distance from the crossing are minor. The SPAD mitigation proposed would provide adequate warning time (5s of flashing RTLs) to vehicular traffic for train approaching PT249 and trains starting away from Llanelli will be mitigated by good sighting of the signal and view of the crossing.

Due to the low speed of proposed use of the PT449 signal, any increase in distance will have minor reduction in crossing risk.

11. What other options have been considered?

All options have been considered and applied to the scheme plan. PT249 or PT449 are unable to move due to the close proximity of the level crossings to the platform, and prior works have taken place to enable First Great Western trains to stand in the platform where train stop boards have been provided. Any further adjustment of these signals would not allow the service to use this station.

No further action has been identified other than outlined above.

12. Consultation with affected parties

Consultation with FGW, ATW and other operators has been carried out through Network change. All issues have been resolved.

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:

- Scheme plan extract
- Llanelli East Level Crossing Renewals – SPAD Risk Assessment dated 16/10/2012.

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:

22/10/2012

17. Lead Standards Committee details:

Name of Committee:

Control Command and Signalling

Date of meeting

08/11/2012

Minute reference:

12/CCS/11/229

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