



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: **12/091/DGN**

2. Details of applicant:

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

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

3. Your reference number:

Tracker No. 10629

4. Status of applicant:

Infrastructure Manager, RSSB Member

5. Title of certificate:

Caerphilly Station. Structures located within the overrun risk zone.

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

RGS Number:	Issue No:	Issue Date:	Title:
GI/RT7016	Four	September 2010	Interface between Station Platforms, Track and Trains

6b. RGS clause(s):

6.3.2.1

6c. RGS clause requirements:

"6.3.2.1 Alterations to an existing structure or track layout shall not:

- a) Cause a structure that is outside the overrun risk zone to come within the overrun risk zone (see sub-section 6.3.1).
- b) Cause a structure which is within the overrun risk zone to become closer to the centre line of the track and/or closer to the face of the buffer stop."

7. Scope of deviation:

Caerphilly Station. Structures located within the overrun risk zone.

8. Impacts of complying with the current RGS requirement:

The Cardiff Area Signalling Renewal (CASR) Project involves enhancement works at Caerphilly Station. These works include the construction of a 150 m long bay platform (from the top of the ramp to buffer stop).

It is proposed that the bay platform will terminate at a Friction Buffer Stop with a 7 m slide length. Canopy support columns will be located 12.4 m behind the buffer face and an occupied station office will be located about 21 m from the buffer face. Thus the proposed arrangements do not comply with Clause 6.3.1.1 of GI/RT7016.

To achieve a minimum of 20 m clearance, the starter signal and new S&C (turnout and crossover) would have to be moved by 15 m towards the Country. This will have an impact on platform standage: based on 6 x 23.710 m long carriages, plus 2 m stopping distance and 5 m for "inaccurate stopping distance" requires at least 149.260 m length of platform. The platform would not therefore be long enough for its intended usage, but extending the platform would require the repositioning of S&C and affect the position of a RRV access point, thereby restricting maintenance activities. It is not therefore deemed practicable to provide a compliant solution.

9. Proposed alternative actions:

A risk assessment has been undertaken in accordance with GC/RC5633 - Recommendations for the Risk Assessment of Buffer Stops, Arresting Devices and End Impact Walls and GC/RT5033 - Terminal Tracks - Requirements for Buffer Stops, Arresting Devices and End Impact Walls.

Based on 25 mph linespeed, the Signalling & Control system (TPWS) will stop all trains hitting the buffer stop, except freight at 4.5%g. The friction arrestor is designed to halt 4.5%g freight within a 7 m slide length. Freight traffic will not be directed into the bay.

10. Impacts of the alternative actions:

It is not deemed to be reasonably practicable to provide a compliant solution.

Low. The low entry speed into the bay platform, coupled with signal protection, minimises the probability and consequences of an impact with the infrastructure located behind the buffer stop.

The proposed CASR signalling system is designed to stop all non-freight trains hitting the buffer stop. Based on 25 mph linespeed, the Signalling & Control system (TPWS) will stop all non-freight trains hitting the buffer stop. The control measures are designed to prevent any train impacting the building.

The canopy is a "side" canopy, and the location under the side canopy can be fenced off to reduce any possible risk of passengers waiting in the overrun zone.

11. What other options have been considered?

N/A

12. Consultation with affected parties

Arriva Trains Wales.

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:

- Arriva's letter of support dated 21/02/2013
- Arriva's letter Re Cardiff Signalling Scheme Renewal Scheme – Network Rail Application for derogation from Railway Group Standards.
- Appendix G – Buffer Stop Risk Assessment Ref. NR/L2/TRK/2500, Issue P02 (October 2010)
- Scheme Plan Ref. 47062210-SW-PW-0361 Rev A01 dated August 2012: DDDDB10/B10424B, Cardiff Area Signalling Renewal (CASR) – Caerphilly Station Platform 1, General Arrangement
- Scheme Plan Final Ref. A014283-SW-PW-DRG-0661 Rev P02 dated January 2010: DDDDB10/B10424B, Cardiff Area Signalling Renewal (CASR) – General Arrangement, Caerphilly Station Platform 1
- Picture of platform.

14. Method of elimination:

N/A

15. Start and end date:

N/A

16. Signature of applicant:

Head of Civil Engineering

Date of application:

18/06/2012

17. Lead Standards Committee details:

Name of Committee:

Infrastructure

Date of meeting

08/01/2013

Minute reference:

13/INS/01/033

Authorised by:

Signed by Cliff Cork on 01/03/2013

Date of Authorisation:

01/03/2013

Cliff Cork

Head of Delivery, Infrastructure and Rolling Stock