



## Deviation from a Railway Group Standard

(In accordance with the Railway Group Standards Code, Issue Four, part 7)

**Deviation Number: 13/059/DEV**

**1. Start Date:**

11/06/2013

**2. Details of applicant:**

Quality Manager, West Coast Railway Company, Jesson Way, Carnforth,  
Lancs LA5 9UR

**3. Your reference number:**

N/A

**4. Status of applicant:**

Railway Undertaking

**5. Title of certificate:**

Maximum Speed for Steam Locomotive 98466.

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

<b>RGS Number:</b>	<b>Issue No:</b>	<b>Issue Date:</b>	<b>Title:</b>
GO/RT3440	Two	October 2009	Steam Locomotive Operation

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

2.2.1.1 and 2.3.2.1

**6c. RGS clause requirements:**

"2.2.1.1 The infrastructure manager shall time steam locomotive movements to take account of restrictions on maximum permissible speed according to driving wheel diameters, as shown in Table A".

Nominal driving wheel diameter		Maximum speed
	Less than 1524 mm (5 feet)	35 mph
1524 mm (5 feet) or greater	Less than 1727 mm (5 feet 8 inches)	50 mph
1727 mm (5 feet 8 inches) or greater	Less than 1880 mm (6 feet 2 inches)	60 mph
1880 mm (6 feet 2 inches) or greater		75 mph

**7. Scope of deviation:**

Any operation of Class 94xx Steam Locomotive 9466 registered on TOPS as 98466 on Network Rail's managed infrastructure.

**8. Duration of the deviation:**

Throughout any period of time that the locomotive is registered for main line operation.

**9. Method of elimination:**

N/A

**10. Impacts of complying with the current RGS requirement:**

This locomotive 9466 would have to be restricted to a maximum permissible speed of 35 mph to comply with Table A of GO/RT3440 Issue 2. Historically, 9466 has operated on Network Rail's managed infrastructure at speeds up to 45 mph, and further journeys have been contracted by West Coast Railways with Network Rail and planned on this basis.

**11. Proposed alternative provisions:**

The locomotive has operated at speeds up to 45 mph with the agreement of Network Rail and this maximum speed would continue to apply in the future.. This locomotive previously operated on Network Rail Infrastructure without incident since 1996, however at a maximum speed of 35 mph. To assist with timings, the maximum speed is increased to 45 mph, although the locomotive has operated on LUL lines at speeds of up to 50 mph and demonstrated its capability to ride and brake trains at and from this speed.

In general, the locomotive's operation will be limited to individual charter train workings, and hence its exposure to the National Rail network is significantly lower than for a modern locomotive. When in operation, its use is controlled by West Coast Railway Company in accordance with its operating and engineering procedures (see deviation reference 07/093/DGN).

The locomotive is subject to various requirements:

- Certificated Maintenance Plan which specifies routine checks and examinations to assure continued safe operation at its registered maximum speed.
- Annual Audit and Certification in accordance with GM/RT2003: certification completed on 31/10/2007 following fitment of TPWS and OTMR in May 2007.

**12. Impacts of the alternative provisions:**

A maximum speed of 35 mph unduly limits the operation of this locomotive to very restricted diagrams. The locomotive has been registered for operation at RSL since May 1996, having operated without incident on NRCI on a number of occasions. The ex BR (W) fleet of 210 locomotives of this class frequently operated diagrams requiring 50 mph maximum speeds in passenger traffic with no records of derailments due to poor riding.

The locomotive has undergone various assessments in 2007:

- Safety and satisfactory performance completed on 02/11/2007 by an accredited Vehicle Acceptance Body having been fitted with TPWS and OTMR.
- Since the locomotive has been de-registered for some time, it was subject to a trial run as required by GM/RT2003 on 01/11/2007.
- Assessed for ride quality and braking performance, and for maximum speed on 01/11/2007: the tests carried out showed that brake systems were functioning and performing satisfactorily; the ride performance was excellent at all speeds up to 50 mph.

A derogation has been granted (Ref. 07/093/DGN), accepting the locomotive for operation at a maximum speed of 45 mph and this, together with the issue of a full VAB Engineering Acceptance certificate, assures safe operation at the maximum speed. No additional risk controls are considered necessary, since the locomotive has operated safely in the past on London Underground lines without incident at speeds up to 50 mph.

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

There is no other suitable locomotive available for the routes envisaged. The only other consideration would

be to cancel or severely restrict the locomotive's future commitments, which could result in loss of amenity for the public and of revenue expectation.

**14. Consultation with affected parties**

N/A

**15. 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.

This certificate follows 12/077/TNC which expires on 07/06/2013.

**16. Signature of applicant:**

Quality Manager

**Date of application:**

15/04/2013

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

Traffic Operation and Management

**Date of meeting**

21/05/2013

**Minute reference:**

13/TOM/05/098

**Authorised by:**

Signed by Steve Roberts on 11/06/2013

Steve Roberts

Head of Delivery, Traffic Operation and Management

**Date of Authorisation:**

11/06/2013