



No. SV.GR

Dated: 07.03.2008

**The General Manager (Engineering),**

- i. Northern Railway, Baroda House, New Delhi-110 001
- ii. Western Railway, Churchgate, Mumbai-400020
- iii. Central Railway, CSTM, Mumbai - 400 001
- iv. Eastern Railway, Fairly Place, Kolkata- 700 001
- v. Southern Railway, Park Town, Chennai - 600 003
- vi. North Frontier Railway, Maligaon, Guwahati- 781 001
- vii. North Eastern Railway, Gorakhpur-273 001
- viii. South Eastern Railway, Garden Reach, Kolkata-700 043
- ix. South Central Railway, Secunderabad-500 071
- x. West Central Railway, Jabalpur-482 001
- xi. South East Central Railway, Bilaspur-495 004
- xii. South Western Railway, Hubli-580023
- xiii. East Coast Railway, Railway Complex, Bhubaneshwar-751 023
- xiv. East Central Railway, Hajipur-844 101
- xv. North Western Railway, Jaipur-302 006
- xvi. North Central Railway, Allahabad-211 001

**Sub:- Final Speed Certificate for operation of EOG Enhanced Capacity coaches, WACCNH1 on track maintained to standards laid down in C&M-I Vol. I.**

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1. It is proposed to run enhanced capacity sleeper coaches over Indian Railways by modifying the berthing layout of AC-3 Tier EOG Coach with longitudinal middle berth to RDSO Drawing CSC-1748 (WACCNH 1)
- 1.1 The proposed "Enhanced capacity" coaches are similar to the existing coaches, the only difference being slight increase in tare and gross weights. CCRS/Lucknow has accorded dispensation to conduct oscillation trials vide letter no.Q17011/01/2005-T.V. dated 14.02.08.
- 2.0 On the basis of the above, it is certified that the EOG "Enhanced Capacity" coaches **WACCNH1** are fit for operation upto maximum speed of 130 kmph over track maintained to standards laid down in C&M-I, Vol.I, of Indian Railways subject to conditions given below.
- 2.1 **Track**
  - 2.1.1 The track shall be to a minimum standard of 52 kg rails on sleepers to M+7 density and minimum depth of ballast cushion below sleepers of 250 mm which may consist of at least 100 mm clean and the rest in caked condition, on compacted and stable formation.

- 2.1.2 For track maintained to lower standard than that mentioned above, the Chief Engineer shall decide the lower maximum permissible speed on the basis of maintenance condition. In this connection, Railway Board's letter No. 65/WDO/SR/26 dated 19/20-10-1996 may be seen. When the Chief Engineer considers that the road bed is not compacted or there is improper drainage, he may suitably restrict the maximum permissible speed depending upon the local conditions.
- 2.1.3 The maximum permissible speed on curve shall be decided on the basis of existing provision of the Indian Railway Permanent Way Manual, second reprint 2004.

## **2.2 Bridges**

- 2.2.1 The clearance refers to bridges with standard design of girders, slabs, pipe culverts, piers and abutments etc. issued by RDSO for BGML, RBG and MBG-1987 standard loadings. However the bearings of span 78.8m (effective) designed for BGML standard loading as per RDSO's drawing no.BA-11154 should be strengthened by providing two additional anchor bolts.
- 2.2.2 Superstructures & bearings of non-standard spans including Arches and sub-structures of all bridges are to be examined under the directions of the Chief Bridge Engineer concern and certified safe by him in terms of current IRS Bridge Rules, Steel Bridge Code, Concrete Bridge Code, Arch Bridge Code, Bridge Sub-Structures and Foundation Code, etc. read with up to date correction slips.
- 2.2.3 Specific restrictions are applicable which are indicated in relevant Speed Certificates of hauling locomotives issued by RDSO.
- 2.2.4 The clearance is subject to the following parameters of Enhanced Capacity Coach:-
- |                                       |                        |
|---------------------------------------|------------------------|
| (i) Maximum axle load (Design)        | =16.25 t               |
| (ii) Max. C.G. Height from Rail Level | =not exceeding 1830mm. |
- 2.2.5 Zonal Railways to certify adequacy of existing bridges for permitting rolling stock based on physical condition of bridges by keeping them under observations considered necessary by the Chief Bridge Engineer of Railway.
- 2.2.6 Location of bridges on which speed restrictions are imposed shall be notified by the Railways and incorporated in the working timetable.

## **2.3 Signaling**

- 2.3.1 Provisions of GR, SR, SEM & all extant instructions issued from time to time shall be complied with.
- 2.3.2 On the sections where EBD of more than 1 km is to be catered for, second distant signal or automatic signalling should be available failing which suitable speed restriction is to be imposed.

## **2.4 Traction Installation (Applicable where electric locomotive is used)**

- 2.4.1 The OHE shall have swiveling type of cantilever having the tension in the conductors regulated automatically with a presag of 50/100 mm. The presag is on the contact wire for a span of 72m, proportionately less for smaller spans.
- 2.4.2 In case of locations where porcelain section insulators are installed on main line and lie within first 1/10<sup>th</sup> and 1/3<sup>rd</sup> of the span immediately after the OHE structure and the runners are in the trailing direction, the maximum speed shall be 120 kmph. At all other locations where porcelain section insulators are installed, the speed shall be limited to 80 kmph.
- 2.4.3 The current collection beyond 100 kmph shall be made through one No. pantograph fit for high speed operation.
- 2.4.4 In 25 kV a.c. traction area, the CEE of Railway shall have to ensure that the minimum height of contact wire as stipulated in provision of Chapter-V and V-A, Electric Traction "Schedule of Dimension of 1676 gauge (BG) revised 2004" is not violated and strictly followed to ensure its safe running.
- 2.4.5 In addition to the above, the Chief Electrical Engineer may impose any temporary speed restrictions on the basis of his personal knowledge and experience of the OHE and the conditions prevailing on the particular section.


## **2.5 Rolling Stock**

Before initiating the operation of the coach, CME of the concerned Railway will certify the track worthiness and safety of the rolling stocks. He will also ensure proper maintenance of the rolling stock.

## **2.6 General**

- 2.6.1 All the permanent and temporary speed restrictions in force and those that may be imposed from time to time due to track, bridges, curves, signaling and interlocking etc. shall be observed.
- 2.6.2 The profile of "Enhanced Capacity" coaches is identical to that of existing ICF coaches. There is no infringement with the provisions of IRSOD(BG), Revised 2004.

Encl: 1. RDSO Drg. Nos. CSC-1748  
2. CRS/LKO letter no.Q1711/01/2005-T.V. dated 14.02.08



(S. Mani)

**Executive Director Standards (Motive Power)**

- Copy:-
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  2. **The General Manager(Mech.& Optg.)**
    - i. Northern Railway, Baroda House, New Delhi-110 001
    - ii. Western Railway, Churchgate, Mumbai-400020
    - iii. Central Railway, CSTM, Mumbai - 400 001
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    - xiv. East Central Railway, Hajipur-844 101
    - xv. North Western Railway, Jaipur-302 006
    - xvi. North Central Railway, Allahabad-211 001
  3. **Managing Director, Konkan Railway Corporation, Belapur Bhavan, Navi Mumbai- 400 014**
  4. **Chief Commissioner of Railway Safety, NE Railway Compund, Ashok Marg, Lucknow - 226 001**



**(S. Mani)**

**Executive Director Standards (Motive Power)**



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Ashok Marg, Lucknow-226 001

दि: 14-02-08

संख्या - क्यू. 17011/01/2005-त.वि.  
सेवा में,

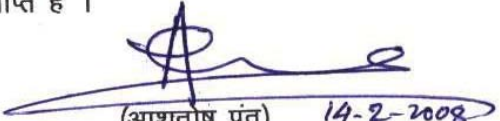
महानिदेशक ( यंत्रिक ),  
अनुसंधान अभिकल्प एवम् मानक संगठन,  
मानक नगर,  
लखनऊ ।

[ ध्यानार्थ: Shri D.K.Singh, ED/Standard & Carriage]


विषय : बढी हुयी क्षमता वाली स्लीपर कोच का भारतीय रेल में परिचालन।  
संदर्भ : अ०अ०मा०सं० का पत्र सं० SV.GR/07/Vol-iv दिनांक 05-02-2008.

आपके उपरोक्त पत्र द्वारा प्रेषित प्रस्ताव का स्वीकारते हुये, मुख्य रेल संरक्षा आयुक्त ने बढी हुयी क्षमता वाले कोच WGSCN2, WGCWNAC, WGFCNAC, WACCNH1 तथा WGACCN2 के दोलन परीक्षण न करने की छूट हेतु अपनी स्वीकृति प्रदान कर दी है।

उपरोक्त पर मुख्य रेल संरक्षा आयुक्त का अनुमोदन प्राप्त है ।

  
(आशुतोष पंत) 14-2-2008  
उप रेल संरक्षा आयुक्त (वि.क.)

Dir/VDG

  
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