

फैक्स/ FAX : 91-0522-2458500
91-0522-2450679
तार : रेलमानक, लखनऊ
Telegram : 'RAILMANAK',
Lucknow
टेलीफोन/ Tele : 2451200 (PBX)
2450115 (DID)



भारत सरकार – रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ – 226 011
Government of India - Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011

AN ISO 9001
CERTIFIED
ORGANISATION

No. MC/LHB/COACH

Dated: 23.12.2014

महाप्रबन्धक (इंजीनियरिंग),

1. उत्तर रेलवे, बडौदा हाऊस, नई दिल्ली – 1100 01
2. उत्तर मध्य रेलवे, हास्टिंग रोड, इलाहाबाद – 211001

Sub: Amendment no. 02 to Speed Certificate for operation of Shatabdi Express and other similar trains hauled by single WAP5 class of locomotive comprising maximum 12 numbers of LHB AC (EOG) coaches including two Generator Vans on New Delhi – Agra Cantt.-New Delhi section of Northern Railway & North Central Railway upto a maximum speed of 160 kmph, on track maintained to C&M-I, Vol.-I standard.

Ref.: (i) This office speed certificate of even no. dated 22.07.2014 followed by amendment no.1 dated 02.09.2014
(ii) Railway Board letters no.2013/Infra/12/43 dated 18.12.2014 & 19.12.2014.

Vide reference letter at (ii) above, it has been instructed to issue an amendment duly incorporating the provisions of RDSO's report CT-20 Rev 2 as approved by Railway Board vide their letter No. 2014/CE-II/TK/HS dated 09.12.2014 in the Speed Certificate issued vide ref. (i) above, for operation of Shatabdi Express and other similar trains hauled by single WAP5 class of locomotive comprising maximum 12 numbers of LHB AC (EOG) coaches including two Generator Vans on New Delhi – Agra Cantt.-New Delhi section of Northern Railway & North Central Railway upto a maximum speed of 160 kmph, on track maintained to C&M-I, Vol.-I standard. Accordingly, the following paragraphs of the speed certificate are amended /inserted.

Para 1.2 modified.

Para 1.5 modified.

Para 2.1.8 & 2.1.9 added.

Para 2.3 replaced.

Para 2.4 replaced.

Para 2.5.1, 2.5.3, 2.5.4 modified and new para 2.5.5 added.

The details of amendment are as follows which shall be read as under:

“1.2 LHB AC EOG Chair car has undergone detailed oscillation trials up to test speed of 180 kmph on Palwal - Mathura section of Northern Railway & North - Central Railway on track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. MT-240, exhibit satisfactory riding and stability behavior, upto test speed of 180 kmph on track maintained to C&M-I, Vol.-I standard. The LHB AC Generator Van has undergone detailed oscillation trials up to test speed of 145 kmph on Palwal - Mathura section of Northern Railway & North - Central Railway and from 145

kmph upto 180 kmph on Ghaziabad - Tundla section of North - Central Railway on track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. MT-274 and MT-282 respectively. The test results of these trials exhibit satisfactory riding and stability behavior, upto test speed of 180 kmph on track maintained to C&M-I, Vol.-I standard. Based on the results, a speed certificate for regular operation of LHB AC chair cars and LHB AC Generator Vans at a maximum speed of 160 km/h on track maintained to C&M -I Vol.-I standard have been issued vide RDSO's letter no. MC/LHB/Coach dated 19.3.2003 followed by partial amendment dated 27.2.2004 and amendments dated 18.11.2014 & 20.12.2014 for LHB AC EOG Chair Cars and MC/LHB/Coach dated 20.3.2003 followed by partial amendment dated 27.2.2004 & amendments dated 18.11.2014 & 20.12.2014 for LHB Generator Van.

- 1.5 WAP5 class of locomotives imported from M/s ABB, Switzerland have undergone detailed oscillation trials at maximum speed of 180 kmph and the results are contained in RDSO's report no. MT-88 (June,1997). Based on the results, WAP5 class of locomotives have been cleared for operation up to a maximum speed of 160 kmph on track maintained to standards laid down in RDSO report no. C&M-I Vol.-I vide RDSO's letter no. SD.WAP5.11 dated 19.06.1997 followed by amendments dated 23.10.2006, 20.01.2012, 13.06.2012 & 20.12.2014.

Para 2.1 Track:

- 2.1.8 Stretches of existing weak formations (where permanent/ temporary speed restriction is imposed), if any, will have to be rehabilitated/ strengthened first before permitting higher speeds.
- 2.1.9 Track recording/ monitoring shall be ensured as per frequency specified in Para 606, 615(3) and 618(3) of Indian Railways Permanent Way Manual, Second Reprint-2004. Zonal Railways shall interpret the results of OMS runs/ TRC and Oscillograph Car Run and impose suitable speed restrictions wherever considered necessary.

Para 2.3 Signalling:

- 2.3.1 Provisions of GR, SR, SEM & all extant instructions issued from time to time shall be complied with.
- 2.3.2 MACLS shall be provided with two distant signal or four aspect automatic signaling. If two distant signals are provided than first distant signal shall be located at a distance of 1 km in rear of the home signal and the second distance signal at a distance of 2 km in rear of the home signal. This stipulation shall also be applicable to the IBS and interlocked gates located in the block section.
- 2.3.3 All manned level crossing gates shall be provided with telephone communication with the nearest station.
- 2.3.4 Following provisions are mandatory.
- i. Electrical operation of points and means for locking both switches.
 - ii. Electrical means for lock detection and independent switch detection by the respective signals.
 - iii. The interlocking between signal and points shall be by electrical or electronic means (PI/RRI/SSI)
 - iv. Track circuiting of all running line from first stop signal to last stop signal.

- v. At stations provided with central panel interlocking arrangement for verifying complete arrival of train by suitable means (Axle counter/ track circuit block proving)
- vi. Means for directly holding the closed switch rail to corresponding stock rail and preventing the points from being unlocked during the passage of the train (clamp lock) is required for facing point.
- vii. For 160 Kmph operation, TPWS of type cleared by RDSO shall be mandatory.

2.3.5 25Watts VHF sets shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master till such time mobile train radio communication work is commissioned in the section.

2.4 Traction Installation

2.4.1 The 25 kV AC OHE shall have swiveling type Cantilever Assembly having tension in the conductors, regulated automatically with a presag. The presag of 50/100 mm (0.8 mm per metre/1.6 mm per metre presag) is on the Contact Wire for a maximum span of 72 m, proportionately less for smaller spans.

The gradient of Contact Wire and the difference in the gradient of Contact Wire between two adjacent spans (relative gradient) may be kept as 3 mm/metre and 1.5 mm/metre respectively.

The above presag as well as gradient of Contact Wire are for running of one to two trains each way at 160 kmph.

2.4.2 In case of locations where 25 KV AC Porcelain Section Insulators are installed on main line and lies within first 1/10th and 1/3 rd of the span, immediately after the OHE Structure and the Runners are in trailing direction, the maximum speed shall be 120 kmph. At all other locations where 25 KV AC Porcelain Section Insulators are installed, the speed shall be limited to 80 kmph.

2.4.3 It will be ensured that the Cantilevers in the Section shall have 'BFB Steady Arm Assembly with 25 mm Drop Bracket.

2.4.4 The current collection shall be made through one number Pantograph fit for high speed operation. The pantograph shall be checked before and after the use.

2.4.5 Retro-reflective number plates shall be provided as per Board's guidelines circulated vide letter no.2001/Elec (G)/170/1 Pt. dated 21.02.2012.

2.4.6 Cross type OHE to be modified to overlap type, if not already provided.

2.4.7 For running of more than two trains at 160 kmph, following inputs may be planned to improve the current carrying capacity as per the requirement.


- (a) Augmentation of TSS capacity or provision of new TSS or 3rd Bay in existing TSS as required for meeting current requirement.
- (b) Augmentation of current carrying capacity of OHE by provision of feeder wire, if required.
- (c) PTFE type short neutral section should be provided in front of new TSS.
- (d) On existing OHE, the contact wire gradient shall be reduced from 3 mm/metre to 2 mm/metre and difference in Contact wire gradient between two adjacent spans be reduced from 1.5 mm/metre to 1 mm/ metre.

- 2.4.8 In 25 kV AC Traction area, the Chief Electrical Engineer of the concerned Railway shall have to ensure that the minimum height of Contact Wire and electrical clearances, as stipulated in provisions of Chapter –V and V-A, Electric Traction of Schedule - I of 'Schedule of Dimensions of 1676 mm Gauge (BG) Revised 2004' with latest Addendum & Corrigendum Slips is not violated.
- 2.4.9 Any temporary speed restriction, on the basis of performance/experience of the Sectional OHE and the field conditions prevailing on the particular Section, may be imposed by the Traction Distribution Officers.

2.5 Rolling Stock:

- 2.5.1 Before starting the operation, Mechanical department of the concerned Railway shall arrange to certify the track worthiness and safety of the rolling stocks. He shall also ensure proper maintenance of the stock. However where the maintenance of rolling stock is being done by Electrical Department, CEE will also be consulted.
- 2.5.3 The LHB AC EOG coaches & LHB Generator Van shall be maintained as per provision in "Maintenance Manual for LHB Coaches " issued by CAMTECH, Gwalior in 2013.
- 2.5.4 Locomotives identified to haul passenger services should be provided with 'H' type tight lock coupler and modified draft gear with pre-load. Coaches should be fitted with AAR 'H' type tight lock CBC with draft gear having pre-load in the range of 30-35 KN or better available draft gear. However, for operation at 160 kmph, coaches should be fitted with AAR 'H' type tight lock CBC with balanced draft gear having suitable pre-load.
- 2.5.5 Since NDLS-AGC section is already cleared for operation at 150 kmph, operation of these coaches & LHB Generator Van at 160 kmph may be permitted with the same stipulations with which 150 kmph speed was introduced. However as stipulated in Railway Board letter no. 97/M(C)/137/1 Volume-VI dated 9.6.2004 and as also stipulated in CT-20 Rev.2 duly approved by Railway Board, the following maintenance facilities are required to be developed by Railways for operation at 160 kmph on other sections on priority:
- (i) Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
 - (ii) Boundary wall for safety and security of the rake and the facilities.
 - (i) Automatic washing plant at entry point.
 - (ii) Wheel profile measurement and re-profiling system
 - (iii) In situ wheel changing facility
 - (iv) Automated and instrumented maintenance system in lieu of existing system based on visual inspection
 - (v) A separate bay with capacity for lifting and change of complete bogie will also be required.
 - (vi) Platform for attention to roof mounted AC equipments. "

संलग्नक: Railway Board letters no.2013/Infra/12/43 dated 18.12.2014 & 19.12.2014



(सी. मधुसूदन राव)

कार्यकारी निदेशक मानक/चालन शक्ति

प्रतिलिपि:

1. सचिव (यांत्रिक / विद्युत / इंजीनियरिंग-जी), रेलवे बोर्ड, रेल भवन, नई दिल्ली-110 001
2. मुख्य रेल संरक्षा आयुक्त, मण्डल रेल प्रबन्धक कार्यालय, पूर्वोत्तर रेलवे परिसर, अशोक मार्ग लखनऊ-226001
3. महाप्रबन्धक (यांत्रिक / विद्युत / ओपरेटिंग / एस एण्ड टी)
 - i) उत्तर रेलवे, बडौदा हाऊस, नई दिल्ली - 1100 01
 - ii) उत्तर मध्य रेलवे, हास्टिंग रोड, इलाहाबाद - 211001

संलग्नक: Railway Board letters no.2013/Infra/12/43 dated 18.12.2014 & 19.12.2014


(सी. मधुसूदन राव)

कार्यकारी निदेशक मानक / चालन शक्ति

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

SNO 3369/1

No.2013/Infra/12/43

Dated: 18.12.2014.

Director General,
RDSO, Lucknow.

Subject: Amendments in Final Speed Certificates of rolling stock for operation at 160 kmph.

- Ref: 1. RDSO speed certificate for maximum permissible speed of 160 kmph for WAP5 loco No. SD.WAP5.11 dated 19.06.1997 and amendment dated 23.11.2006.**
- 2. RDSO speed certificate for maximum permissible speed of 160 kmph for LHB stock No. MC/LHB/COACH dated 19.03.2003 and amendment dated 18.11.2014.**
- 3. RDSO speed certificate for maximum permissible speed of 160 kmph for BG LHB Generator Van No. MC/LHB/COACH dated 20.03.2003 and amendment dated 27.02.2004 and 18.11.2014.**
- 4. RDSO speed certificate for maximum permissible speed of 160 kmph for shatabdi express and other similar trains hauled by single WAP5 class of locomotive comprising maximum 12 nos. of LHB AC (EOG) coaches No. MC/LHB/COACH dated 22.07.2014.**
- 5. CRS letter No. 2014/Q-15/LHB/NC/735, 736 & 737 dated 15.12.2014 to GM/NR & NCR.**

RDSO had issued Final Speed Certificates for maximum permissible speed of 160 kmph for WAP5 and LHB stock (LWFCZAC, LWSCZAC and LWLRRM) vide S. No. 01, 02 and 03 referred above. Vide reference 04 above RDSO has issued speed certificate for operation of shatabdi express and other similar trains hauled by single WAP5 class of locomotive comprising maximum 12 nos. of LHB AC (EOG) coaches including two generator vans on New Delhi-Agra Cantt-New Delhi section of Northern Railway and North Central Railway upto a maximum speed of 160 kmph, on track maintained to C&M-1.Vol.-1 standard.

On the basis of these certificates Northern Railway had applied to CRS/Northern Circle through CCRS for the first sanction of the stock from Railway Board. CRS/Northern Circle vide letter referred at S. No. 05 above have raised certain objections. A copy of the letter of CRS/Northern Circle is being enclosed for your ready reference.

The perusal of the letter of CRS/Northern Circle indicates that there is a mismatch on the standard of track to be maintained for operation of the above mentioned stock at 160 kmph as mentioned in certificates issued individually for stock and the certificate issued for operation of the train.

You are requested to get the necessary changes done in the speed certificates issued separately for the LHB stock and WAP5 loco on the parallel lines as it is indicated in the final speed certificate of the train so that CRS/Northern Circle is accordingly apprised.

Please treat the matter 'VERY URGENT' and get the changes done on priority and hand over the same positively to the bearer of this letter.



(Vijay Kumar)

Executive Director/Infra/Mech
Railway Board

7c



सत्यमेव जयते

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

दूरभाष/फैक्स : 011-26886589 (DOT)
Telephone : 030-54752 / 54753 (Rly)
e-mail : crs_ncircle@yahoo.com



रेल संरक्षा आयुक्त,
उत्तर परिमण्डल, क्रिस परिसर,
चाणक्यपुरी, नई दिल्ली-110021

Commissioner of Railway Safety,
Northern Circle, CRIS Complex,
Chanakyapuri, New Delhi - 110 021

संख्या:2014/क्यू-15/एलएचबी/उ.परि/735

दिनांक: 15.12.2014

महाप्रबन्धक
उत्तर रेलवे
बडोदा हाऊस
नई दिल्ली-110001

(Kind Attn. : Shri Pradeep Kumar, GM)

विषय: Operation of BG LHB AC Generator Van (LWLRRM) fitted with FIAT bogies at 160 kmph on New Delhi-Palwal (Incl.) section of Northern Railway.

संदर्भ: आपका आवेदन पत्र संख्या.519-डब्लू/1085 दिनांक: 09.12.14

1. The application, Joint Safety Certificate No.SLC/BG/26/2014, track certificate etc are not as per the requirements as laid down RDSO's speed certificate No.MC/LHB/COACH dated 20.03.2003 and amendment No.1 dated: 18.11.2014 and as such your application can not be forwarded to Railway Board through CCRS, Lucknow.

2. Surprisingly, in the Joint Safety Certificate No.SLC/BG/26/2014 signed by all the PHOD's in the column-"Maximum permissible speed certified by RDSO" a reference of some other speed certificate which is not relevant in the present case has been mentioned. It is not understood why this has been done?

Similar reference has been mentioned in the track certificate signed by CTE/NR.


3. Track certificate signed by CTE/NR, enclosed with the application is not as per the prescribed standard format.

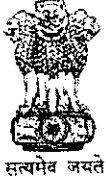
4. Now since Railway Board vide their letter dated: 09.12.2014 has approved RDSO's Report No. CT-20 Rev-2 for Introduction of trains at speed up to 160 kmph on New Delhi-Mumbai Central routes, the various provisions of this report shall invariably has to form the part of the RDSO's Speed Certificate for the relevant rolling stock.

5. It is also said in the enclosures with the application that track is maintained as per C&M-1, Vol.-I report. This RDSO's report pertains to operation of rolling stocks at a sanctioned speed of 120 kmph, and at test speeds upto 136 kmph. In the C&M-1, Vol.-I report certain limits have been prescribed for the guidance of the engineering officials in deciding on the suitability, of the standard of maintenance of the track, for general operation of the WDM-4 locomotive and the ICF all coil coaching stock at a sanctioned speed of 120 kmph, and at test speeds up to 136 kmph. In view of this how C&M-1, Vol.-I report is being made applicable at 160 kmph speed for the rolling stock involved in this case?

In view of the above, the proposal is returned for necessary action at your end.

DA: As above


15-12-2014
{ राज कुमार कर्म }
रेल संरक्षण आयुक्त
12/12



सत्यमेव जयते

रेल संरक्षा आयुक्त,
उत्तर परिमण्डल, क्रिस परिसर,
चाणक्यपुरी, नई दिल्ली-110021

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

दूरभाष/फैक्स : 011-26865589 (DOT)
Telephone : 030-54752 / 54753 (Riy)
e-mail : crs_ncircle@yahoo.com



Commissioner of Railway Safety,
Northern Circle, CRIS Complex,
Chanakyapuri, New Delhi - 110 021

संख्या:2012/क्यू-12{11}/उ.परि/736

दिनांक: 15.12.2014

महाप्रबन्धक
उत्तर रेलवे
बडौदा हाऊस
नई दिल्ली-110001

(Kind Attn. : Shri Pradeep Kumar, GM)

विषय: Operation of WAP-5 class of locomotive on track maintained to Rajdhani standards at 160 kmph on New Delhi-Palwal (Incl.) section of Northern Railway.

संदर्भ: आपका आवेदन पत्र संख्या.519-डब्ल्यू/1087 दिनांक: 09.12.14

1. The application, Joint Safety Certificate No.SLC/BG/28/2014, track certificate etc are not as per the requirements as laid down RDSO's in speed certificate No.SD WAP5.11 dated 19.06.1997 and amendment dated: 23.10.2006 and as such your application can not be forwarded to Railway Board through CCRS, Lucknow.

2. Surprisingly, in the Joint Safety Certificate No.SLC/BG/28/2014 signed by all the PHOD's in the column-" Maximum permissible speed certified by RDSO" a reference of some other speed certificate which is not relevant in the present case has been mentioned. It is not understood why this has been done?

Similar reference has been mentioned in the track certificate signed by CTE/NR.

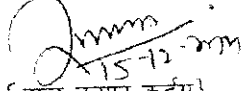
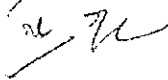
3. Track certificate signed by CTE/NR, enclosed with the application is not as per the prescribed standard format.

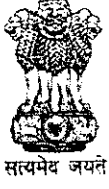
4. Now since Railway Board vide their letter dated: 09.12.2014 has approved RDSO's Report No.CT-20 Rev-2 for Introduction of trains at speed up to 160 kmph on New Delhi-Mumbai Central routes, the various provisions of this report shall invariably has to form the part of the RDSO's Speed Certificate for the relevant rolling stock

5. It is also said in the enclosures with the application that track is maintained as per C&M-1, Vol.-1 report. This RDSO's report pertains to operation of rolling stocks at a sanctioned speed of 120 kmph, and at test speeds upto 136 kmph. In the C&M-1, Vol.-I report certain limits have been prescribed for the guidance of the engineering officials in deciding on the suitability, of the standard of maintenance of the track, for general operation of the WDM-4 locomotive and the ICF all coil coaching stock at a sanctioned speed of 120 kmph, and at test speeds up to 136 kmph. In view of this how C&M-1, Vol.-I report is being made applicable at 160 kmph speed for the rolling stock involved in this case?
6. As per remarks against Para No.2.3.2 of RDSO's speed certificate works are still under progress on NDLS-PWL section.

In view of the above, the proposal is returned for necessary action at your end.

DA: As above


15-12-2011
[राज कुमार कर्दम]
रेल संरक्षा आयुक्त




सत्यमेव जयते

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

दूरभाष/फैक्स : 011-26886589 (DOT)
Telephone 030-54752 / 54753 (Rly)
e-mail : crs_ncircle@yahoo.com



रेल संरक्षा आयुक्त,
उत्तर परिमण्डल, क्रिस परिसर,
चाणक्यपुरी, नई दिल्ली-110021

Commissioner of Railway Safety,
Northern Circle, CRIS Complex,
Chanakyapuri, New Delhi - 110 021

संख्या:2014/क्यू-15/एलएचबी/उ.परि/ 734

दिनांक: 15.12.2014

महाप्रबन्धक
उत्तर रेलवे
बलौदा हाऊस
नई दिल्ली-110001

(Kind Attn. : Shri Pradeep Kumar, GM)

विषय: Operation of BG EOG type LHB AC Chair Car (LWFCZAC) & (LWSCZAC) fitted with FIAT bogies at 160 kmph on New Delhi-Palwal (Incl.) section of Northern Railway.

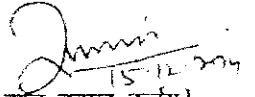
संदर्भ: आपका आवेदन पत्र संख्या.519-डब्लू/1086 दिनांक: 09.12.14

1. The application, Joint Safety Certificate No.SLC/BG/27/2014, track certificate etc are not as per the requirements as laid down RDSO's speed certificate No.MC/LHB/COACH dated: 19.03.2003, RDSO's letter No.MC/LHB/COACH dated: 27.02.2004 and amendment No.1 dated: 18.11.2014 and as such your application can not be forwarded to Railway Board through CCRS, Lucknow.
2. Surprisingly, in the Joint Safety Certificate No.SLC/BG/27/2014 signed by all the PHOD's in the column-" Maximum permissible speed certified by RDSO" a reference of some other speed certificate which is not relevant in the present case has been mentioned. It is not understood why this has been done?
Similar reference has been mentioned in the track certificate signed by CTE/NR.
3. Track certificate signed by CTE/NR, enclosed with the application is not as per the prescribed standard format.
4. Now since Railway Board vide their letter dated: 09.12.2014 has approved RDSO's Report No.CT-20 Rev-2 for Introduction of trains at speed up to 160 kmph on New Delhi-Mumbai Central routes, the various provisions of this report shall invariably has to form the part of the RDSO's Speed Certificate for the relevant rolling stock.

5. It is also said in the enclosures with the application that track is maintained as per C&M-1, Vol.-1 report. This RDSO's report pertains to operation of rolling stocks at a sanctioned speed of 120 kmph, and at test speeds upto 136 kmph. In the C&M-1, Vol.-I report certain limits have been prescribed for the guidance of the engineering officials in deciding on the suitability, of the standard of maintenance of the track, for general operation of the WDM-4 locomotive and the ICF all coil coaching stock at a sanctioned speed of 120 kmph, and at test speeds up to 136 kmph. In view of this how C&M-I, Vol.-I report is being made applicable at 160 kmph speed for the rolling stock involved in this case?

In view of the above, the proposal is returned for necessary action at your end.

DA: As above


[राज कुमार कर्दम]
रेल संरक्षा आयुक्त

S.No 3369/2

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.2013/Infra/12/43

Dated: 19.12.2014.

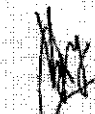
Director General,
RDSO, Lucknow.

Subject: Amendments in Final Speed Certificates of rolling stock for operation at 160 kmph.

- Ref: 1. RDSO speed certificate for maximum permissible speed of 160 kmph for WAP5 loco No. SD.WAP5.11 dated 19.06.1997 and amendment dated 23.11.2006.
2. RDSO speed certificate for maximum permissible speed of 160 kmph for LHB stock No. MC/LHB/COACH dated 19.03.2003 and amendment dated 18.11.2014.
3. RDSO speed certificate for maximum permissible speed of 160 kmph for BG LHB Generator Van No. MC/LHB/COACH dated 20.03.2003 and amendment dated 27.02.2004 and 18.11.2014.
4. RDSO speed certificate for maximum permissible speed of 160 kmph for shatabdi express and other similar trains hauled by single WAP5 class of locomotive comprising maximum 12 nos. of LHB AC (EOG) coaches No. MC/LHB/COACH dated 22.07.2014.
5. CRS letter No. 2014/Q-15/LHB/NC/735, 736 & 737 dated 15.12.2014 to GM/NR & NCR.

Kindly connect this office letter of even no. dated 18.12.2014 in which RDSO has been requested to make the necessary changes in the final Speed certificates of rolling stock for operation at 160 kmph regarding the structure of track particularly for New Delhi-Agra corridor.

Vide reference 05 above CRS has also desired that "Now since Railway Board vide their letter dated 09.12.2014 has approved RDSO's Report no. CT-20 Rev.-2 for introduction of train at speed upto 160 kmph on New Delhi-Mumbai Central routes, the various provisions of this report shall invariably has to form the part of the RDSO's speed certificates for the relevant rolling stock". In this connection you are further requested to kindly incorporate the relevant provisions of RDSO's Report no. CT-20 Rev.-2 in the final Speed certificates of rolling stock also.



(Vijay Kumar)
Executive Director/Infra/Mech
Railway Board