

GUARD

FILE

2022 Pt.1



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SD/RS/12/DHMU-KLK-SML

New Delhi, Dated 12.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement to Schedule of Dimensions of Kalka-Shimla 762mm (2ft.6in) Gauge by wheel diameter (700mm), Maximum height for floor (1046mm), of Driving Power Car (DPC) and Non Driving Car (NDPC) as per layout drawing nos. SNSK4794 Rev.3 & SNSK4795 Rev.3 respectively of Narrow Gauge Diesel Hydraulic Multiple Unit (DHMU) manufactured by M/s San Engineering & Locomotive Co. Ltd., Bangalore

Ref: (i) RDSO's letter no. CT/SD/NG/KLK-SML, dated 24.04.2022

(ii) CCRS office letter no. Q.14011/03/2022-23-TW, dated 29.07.2022

With reference to RDSO above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement to Schedule of Dimensions of Kalka-Shimla 762mm (2ft.6in) Gauge by wheel diameter (700mm) & Maximum height for floor (1046mm) of Driving Power Car (DPC) and Non Driving Car (NDPC) as per layout drawing nos. SNSK4794 Rev.3 & SNSK4795 Rev.3 respectively of Narrow Gauge Diesel Hydraulic Multiple Unit (DHMU) manufactured by M/s San Engineering & Locomotive Co. Ltd., Bangalore, as shown in details enclosed with above mentioned applications, details of infringements as under:

- I. **Clause 2(i) -**Maximum diameter on the tread of new carriage or wagon wheel, measured at 67 mm from wheel gauge face by 90 mm (i.e. 700mm instead of 610mm).
- II. **Clause 4 -**Maximum height above rail level for floor of any unloaded vehicle by 306mm (i.e. 1046mm in instead of 740mm).

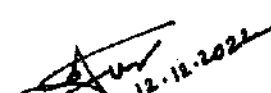

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SD/RS/12/DHMU-KLK-SML

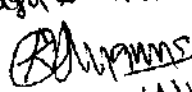
New Delhi, Dated 12.12.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-226001 w.r.t. his endorsement no. Q.14011/03/2022-23-TW, dated 29.07.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Chg.)/Railway Board, New Delhi


(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

Issued through E-mail


14/12/22
ADECCWIL



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



2022/CEDO/SR/27(1)/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 08.12.2022

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL, 5th Floor, Supreme
Court, Metro Station Building
Complex, New Delhi - 110001.

Sub: Introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Transportation Code: BRSWSP; Max. Axle Load: 21t], up to a maximum speed of **65 kmph** when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/11/2021-22-T.W, dated 30.09.2022
(ii) RDSO's letter no. TM/HM/11/18/BRM, dated 21.03.2022
(iii) RDSO's Provisional Speed Certificate no. TM/HM/11/18/BRM, dated 01.07.2021 and Amendment no. 1 & Amendment no. 2 dated 22.12.2021 & 22.04.2022 respectively

With reference to RDSO above application {ref.ii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Transportation Code: BRSWSP; Max. Axle Load: 21t], up to a maximum speed of **65 kmph** when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL with the following stipulations :

- i. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/18/BRM, dated 01.07.2021 including its Amendment no. 1 & 2 dated 22.12.2021 & 22.04.2022 for operation up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

[Signature]
Dec 13/2022

- ii. Observance of all permanent and temporary speed restrictions already in force and /or use that may be imposed from time to time on various accounts.
- iii. It shall be ensured that staff working with BRM should wear protective gear such as Helmets, Goggles, Masks, Reflective jackets, Shoes etc. to avoid any injury due to flying of ballast & other small particles.
- iv. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
- v. Any part which is meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kV AC OHE no parts of the vehicle should extend beyond the MMD envelope. Minimum electrical clearance as per SOD shall also be ensured.
- vi. Ballast Regulating Machine shall be maintained as per instructions laid down by RDSO.
- vii. The machine shall carry out all the operations as listed in Para 3.13 of RDSO specification no. TM/HM/BRM/369 Rev. 01 of 2016 in one working pass under normal condition.
- viii. The length of brooms for fastenings should be suitably adjusted so that ballast deposited over sleepers & pandrol clip is moved away due to its operation.
- ix. 25 kVA, 'Danger Sign Board' made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff.
- x. At least two fire extinguishers of adequate capacity should be provided inside the driver's cab.
- xi. Track machine operators must be properly trained in the operation of BRM before issue of "Competency Certificate" and record of training imparted to them be kept.

[Signature]
Dec-98/2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

2022/CEDO/SR/27(1)/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 08.12.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/11/2021-22-T.W, dated 30.09.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track (M&Mc), Railway Board

[Signature]
Dec-98/2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued through E-mail

[Signature]
09/12/22
ADE(CVIL)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



2022/CEDO/SR/27(2)/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 08.12.2022

The Director General,
Research Designs & Standards,
Manak Nagar, Lucknow-226011.

Sub: Future Improvement of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t]

Ref: (i) Railway Board's letter no. 2022/CEDO/SR/27(1)/BRM, Model-USP 2000 SWS-65kmph dated 08.12.2022
(ii) CCRS office letter no. Q.12011/11/2021-22-T.W, dated 30.09.2022
(iii) RDSO's letter no. TM/HM/11/18/BRM, dated 21.03.2022
(iv) RDSO's Provisional Speed Certificate no. TM/HM/11/18/BRM, dated 01.07.2021 and Amendment no. 1 & Amendment no. 2 dated 22.12.2021 & 22.04.2022 respectively

With reference to RDSO above application {ref.iii}, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following measures for future improvement of the above rolling stock:

- i. 4 No CCTV cameras have been provided to assist the operator carry out the ballast regulating operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.
- ii. Machine may be equipped with centralised Computer based Monitoring & Control System to monitor the health of various systems such as engine, hydraulics, pneumatic & electrics. The data so captured should be displayed in driver's cab. Arrangement should also be made for downloading & analysing the data.
- iii. At present the stock is proposed to be operated at a speed of 65 Kmph based on the Provisional Speed Certificate issued by RDSO. Oscillation trial of the stock should be planned & conducted at the earliest and Final Speed Certificate issued to utilize its full speed potential.

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Dec-08/2022

- iv. Hand operated hydraulic pump has been provided for retraction of machine parts like side plough, centre plough, broom etc. belt in case of failure of main engine. Feasibility of providing electrical pump may be explored in future design of the machine.
- v. Hydraulic oil filling is done by opening of top cover of hydraulic system which requires the staff to stand on the machine. This may be unsafe especially under OHE of restricted height. Provisions should, therefore, be made for oil topping without opening the top cover.
- vi. Split AC has been fitted in the cab which was found to be of inadequate capacity due to loss of cooling from the small windows provide for communication with staff standing on the ground. AC having adequate capacity to provide effective cooling even during extreme weather conditions must be fitted to ensure efficient working by the machine operator.
- vii. Stickers having descriptions should be provided on all push buttons, switches, indicators, gauges etc. provided in the driver's cab.
- viii. All the three systems i.e. regulation of shoulder ballast by outer flap and regulation/cleaning of ballast from the top of the sleeper and pandrol clips should work simultaneously. If such working is not resorted to then block hour will be wasted without any tangible output and in all likelihood duplicate progress will be repeated

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

[Signature]
Dec-08/2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

2022/CEDO/SR/27(2)/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 08.12.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/11/2021-22-T.W, dated 30.09.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track(M&Mc), Railway Board

[Signature]
Dec-08/2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued through E-mail

[Signature]
09/12/22
ADCEC(11/14)



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अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/26(2)/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

The General Manager,
All Indian Railways

Sub: Introduction of 12 car rake formation BG Air-Conditioned EMU coaches {Transportation code : EMU/DMC/IGBT/US/AC, EMU/MC/IGBT/US/AC, EMU/TC/IGBT/ US/AC, EMU/TC1/IGBT/US/AC & EMU/NDMC/IGBT/US/AC and Layout Drawing No.: EMU/US/DMC/AC-9-0-01, EMU/US/MC/AC-9-0-01, EMU/US/TC/AC-9-0-01, EMU/US/TC1/ AC-9-0-01 & EMU/US/NDMC/AC-9-0-01 for Driving Motor Coach (DMC), Motor Coach (MC), Trailer Coach (TC), Trailer Coach (TC1) & Non-Driving Motor Coach (NDMC) respectively} fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, up to a maximum operational speed of 110 kmph on track maintained as per Para 522 of IRPWM June 2020 over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter No. Q.12011/25/2019-20-T.W, dated 23.09.2022

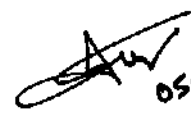
(ii) RDSO's letter No. MC/EMU/3-Phase/US/ICF, dated 11.07.2022

(iii) RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.1 dated 31.08.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of 12 car rake formation BG Air-Conditioned EMU coaches {Transportation code : EMU/DMC/IGBT/US/AC, EMU/MC/IGBT/US/AC, EMU/TC/IGBT/ US/AC, EMU/TC1/IGBT/US/AC & EMU/NDMC/IGBT/US/AC and Layout Drawing No.EMU/US/DMC/AC-9-0-01, EMU/US/MC/AC-9-0-01, EMU/US/TC/AC-9-0-01, EMU/US/TC1/AC-9-0-01 & EMU/US/NDMC/AC-9-0-01 for Driving Motor Coach (DMC), Motor Coach (MC), Trailer Coach (TC), Trailer Coach (TC1) & Non-Driving Motor Coach (NDMC) respectively} fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, on track maintained as per Para 522 of IRPWM June 2020 up to a maximum operational speed of 110 kmph over Indian Railway, by Zonal Railways with the following stipulations :

A. Safety items- shall be ensured by Railways & RDSO before introduction :

- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.1 dated 31.08.2022 for operation of up to a maximum operational speed of 110 kmph, shall be ensured on the Railway

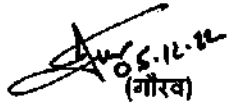

05.12.22

- while seeking the sanction of General Manager, for introduction of rolling stock on the railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
 - iii. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 Km/h should be strictly complied.
 - iv. As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running
 - v. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
 - vi. Railway shall comply all the stipulations mentioned in the EIG (Western Railway) letter no. 250/3/1/8(Underslung EMU) dt. 07.07.2022 for 12 car formation AC EMU rake
 - vii. It shall be ensured that driver cab is locked from inside during run to prevent the entry of any unauthorized person.
 - viii. Earthing in the coach body & all the panels shall always be properly maintained.
 - ix. Height of station platform from rail level shall not exceed 900mm.
 - x. Emergency egress device provided in the coach shall remain unlocked for use by the passengers.

B. Non-Safety Items –guidelines:

- i. Withdrawal of AC EMU rake from service if more than one door on one side becomes defective.
- ii. Suitable setting of temperature inside coaches to ensure comfortable conditions to passengers, considering ambient condition and frequent opening & closing of doors.
- iii. Availability of at least one technician in AC EMU train for a period of first 15 days of its introduction. The staff shall also educate passengers for opening of automatic doors during emergency.
- iv. Ensuring necessary resources i.e. trained operation and maintenance staff and adequate number of spare parts/ consumables for running & operation of AC EMU train.

2. Board's letter No.2022/CEDO/SR/26/12-CAR-AC-EMU dated 05.12.2022 stands withdrawn.


(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

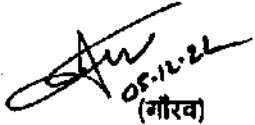
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/26(2)/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/25/2019-20-T.W, dated 23.09.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. ED/Coaching, Railway Board
6. EDME(Coaching), Railway Board


(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SR-25-FRM-85F-60-65 kmph

New Delhi, dated 07.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Sub: Introduction of Shoulder Ballast Cleaning Machine, Model No. FRM-85F [Unique Transportation Code: CSBC85FP; Maximum Axle Load 20.4t] of M/s Plasser India, GA drawing No. RE00.71, up to maximum speed of 60 kmph when running on its own power and 65 kmph in train formation as a dead vehicle from existing maximum sanctioned speed of 40 kmph when running on its own power and 30 kmph in train formation as a dead vehicle, over Indian Railways BG routes, by Zonal Railways

Ref: (i) RDSO's Final Speed Certificate (FSC) no. TM/HM/11/12/FRM-85F, dated 11.08.2022
(ii) RDSO's letter no. TM/HM/11/12/FRM-85F, dated 22.08.2022
(iii) CCRS office letter Q.11027/01/2014-15.T.W, dated 21.09.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for increase of sanctioned maximum speed of Shoulder Ballast Cleaning Machine, Model No. FRM-85F [Unique Transportation Code: CSBC85FP; Maximum Axle Load 20.4t] to M/s Plasser India, GA drawing No. RE00.71, up to maximum speed of 60 kmph when running on its own power and 65 kmph in train formation as a dead vehicle from existing maximum sanctioned speed of 40 kmph when running on its own power and 30 kmph in train formation as a dead vehicle, over Indian Railways BG routes, by Zonal Railways with the following stipulations :

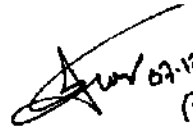
- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. TM/HM/11/12/FRM-85F, dated 11.08.2022 for operation up to a maximum speed of 60 kmph when running on its own power and 65 kmph in train formation as a dead vehicle, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of Shoulder Ballast Cleaning Machine. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular

[Signature]
07.12.22

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No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure

- ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- iii. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
- iv. Any part which are meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kv AC OHE such that no parts of the vehicle extend beyond the MMD envelop & also to ensure minimum electrical clearance as per SoD.
- v. Shoulder Ballast Cleaning Machine shall be maintained as per instructions laid down by RDSO.

 07.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

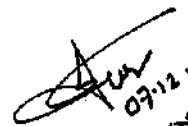
e-mail address: dceg@rb.railnet.gov.in

No. 2022-CEDO-SR-25-FRM-85F-60-65 kmph

New Delhi, dated 06.12.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.11027/01/2014-15.T.W, dated 21.09.22
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDTk(M&Mc) Railway Board

 07.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued through Email

 09/12/22
ADE (11/14)

No. 2022/CEDO/SR/26(1)/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

The Director General

Research Designs & Standards Organisation

Manak Nagar, Lucknow-226011

Sub: Future Improvement of 12 car rake formation BG Air-Conditioned EMU coaches {Transportation code : EMU/DMC/IGBT/US/AC, EMU/MC/IGBT/US/AC, EMU/TC/IGBT/US/AC, EMU/TC1/IGBT/US/AC & EMU/NDMC/IGBT/US/AC and Layout Drawing No.: EMU/US/DMC/AC-9-0-01, EMU/US/MC/AC-9-0-01, EMU/US/TC/AC-9-0-01, EMU/US/TC1/AC-9-0-01 & EMU/US/NDMC/AC-9-0-01 for Driving Motor Coach (DMC), Motor Coach (MC), Trailer Coach (TC), Trailer Coach (TC1) & Non-Driving Motor Coach (NDMC) respectively} fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF

Ref: (i) Railway Board's letter No. 2022/CEDO/SR/26/12-CAR-AC-EMU dated 05.12.2022

(ii) CCRS office letter No. Q.12011/25/2019-20-T.W, dated 23.09.2022

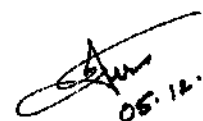
(iii) RDSO's letter no. DG/RDSO's letter No. DG/RDSO's letter No. MC/EMU/3-Phase/US/ICF, dated 11.07.2022 & 30.09.2022

(iv) RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.1 dated 31.08.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of 12 car rake formation BG Air-Conditioned EMU coaches {Transportation code: EMU/DMC/IGBT/US/AC, EMU/MC/IGBT/US/AC, EMU/TC/IGBT/US/AC, EMU/TC1/IGBT/US/AC & EMU/NDMC/IGBT/US/AC and Layout Drawing No.: EMU/US/DMC/AC-9-0-01, EMU/US/MC/AC-9-0-01, EMU/US/TC/AC-9-0-01, EMU/US/TC1/AC-9-0-01 & EMU/US/NDMC/AC-9-0-01 for Driving Motor Coach (DMC), Motor Coach (MC), Trailer Coach (TC), Trailer Coach (TC1) & Non-Driving Motor Coach (NDMC) respectively} fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, up to a maximum operational speed of 110 kmph on track as per Para 522 of IRPWM June 2020 over Indian Railway, by Zonal Railways vide RB's letter under reference (i) above. Board has also suggested the following measures for future improvement of the above rolling stock:

A. Safety items :

- Vigilance Control Device (VCD) has not been provided in the driver's cab. It may be provided in the future rakes and retrofitted in the existing ones to enhance safety in case of any untoward incident
- Voice logger may be provided for Emergency Talk Back Unit and for communication between driver and guard with provision of voice recording for at least one hour duration
- Emergency ladders provided for detraining of passengers in case of emergency are almost one foot inside the floor making them unsuitable for disembarking from the train especially by elderly persons & children. A suitable mechanism for enabling the passengers to detrain safely in case of emergency like derailment, fire incident etc may be explored and fitted in existing as well as future rakes
- Available gap between fall plate covers/chequered plates provided in between two coaches, may cause entrapment of passengers' foot resulting in injury. This gap may be optimized to avoid any such untoward incident.


05.12.22

- v. Aerosol-based automatic fire detection and suppression system may be provided in all electrical panels.
- vi. Railway Board vide letter no. 2017/CEDO/SR/26 dated 19.12.2017 communicated sanction of the Central Government for operation of AC EMU having propulsion system of M/s BHEL make wherein RDSO was advised to provide Automatic Smoke Detection & fire Alarm System in all coaches in two years but the same has not been fitted in any of rakes till date. Automatic Smoke/Fire Detection with Fire Alarm System as per guidelines provided by RDSO vide letter no. AC/ACF/fire detection/AC dated 09.03.2022 may be retrofitted in the inspected rake as well as in future rakes.

B. Non-Safety Items – guidelines

- i. Entry from driver's cab to passenger area in DMC may be provided
- ii. In future rakes, detection of 10mm obstruction by the doors should be provided
- iii. As the rake is provided with 50% powering, RDSO may plan for Oscillation Trials at higher speed of 130/140 Kmph to realise its full speed potential
- iv. Air Condition in the driver's cab is provided on the floor making it prone to choking of filters. Roof mounted cab AC or bleeding of air from existing RMPU should be provided
- v. Suitable arrangement should be made for making announcements through PA system regarding opening/closing of automatic doors, next station, procedure for detraining in case of emergency etc
- vi. The rake is fully vestibule providing for through movement from one end of the train to the other giving it an aesthetically pleasing & passenger friendly look. All EMU & MEMU rakes manufactured in future should also be fully vestibule similar to the proposed rake.
- vii. The interiors and furnishing items provided in the offered rake are a definite and visible improvement over the previous rakes. However, there is still scope for improvement especially in the cab and driver desk area. Railway may engage an expert in the field of interior designing to further improve the interiors, overall look of the rake from outside, colour scheme, driver's cab to make the future rakes aesthetically pleasing and crew friendly.

RDSO and Railways are requested to examine above and take necessary action as the case may be. The compliance of the same should also be submitted to CCRS.

[Signature] 05.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/26(1)/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

Copy forwarded for information to:

- 1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/25/2019-20-T.W, dated 23.09.2022
- 2. The Commissioner of Railway Safety, All Circles
- 3. Executive Director (Standards) Motive Power, RDSO, Lucknow
- 4. Executive Director (Standards) Track-I, RDSO, Lucknow
- 5. ED/Coaching, Railway Board
- 6. EDME(Coaching), Railway Board

[Signature] 05.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Letter issued vide email

[Signature]
05/12/22
ADE (CIVIL)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/26/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of 12 car rake formation BG Air-Conditioned EMU coaches {Transportation code : EMU/DMC/IGBT/US/AC, EMU/MC/IGBT/US/AC, EMU/TC/IGBT/US/AC, EMU/TC1/IGBT/US/AC & EMU/NDMC/IGBT/US/AC and Layout Drawing No.: EMU/US/DMC/AC-9-0-01, EMU/US/MC/AC-9-0-01, EMU/US/TC/AC-9-0-01, EMU/US/TC1/AC-9-0-01 & EMU/US/NDMC/AC-9-0-01 for Driving Motor Coach (DMC), Motor Coach (MC), Trailer Coach (TC), Trailer Coach (TC1) & Non-Driving Motor Coach (NDMC) respectively} fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, up to a maximum operational speed of 110 kmph as per Para 522 of IRPWM June 2020 over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter No. Q.12011/25/2019-20-T.W, dated 23.09.2022
(ii) RDSO's letter No. MC/EMU/3-Phase/US/ICF, dated 11.07.2022 & 30.09.2022
(iii) RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.1 dated 31.08.2022

A. Safety items- shall be ensured by Railways & RDSO before introduction:

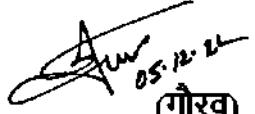
- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.1 dated 31.08.2022 for operation of up to a maximum operational speed of 110 kmph, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- All the provisions contained in the Railway Board's letter no. 2014/CE-IL.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 Kmph should be strictly complied.
- As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running

05.12.22

- v. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
- vi. Railway shall comply all the stipulations mentioned in the EIG (Western Railway) letter no. 250/3/1/8(Underslung EMU) dt. 07.07.2022 for 12 car formation AC EMU rake
- vii. It shall be ensured that driver cab is locked from inside during run to prevent the entry of any unauthorized person.
- viii. Earthing in the coach body & all the panels shall always be properly maintained.
- ix. Height of station platform from rail level shall not exceed 900mm.
- x. Emergency egress device provided in the coach shall remain unlocked for use by the passengers.

B. Non-Safety items –guidelines:

- i. Withdrawal of AC EMU rake from service if more than one door on one side becomes defective.
- ii. Suitable setting of temperature inside coaches to ensure comfortable conditions to passengers, considering ambient condition and frequent opening & closing of doors.
- iii. Availability of at least one technician in AC EMU train for a period of first 15 days of its introduction. The staff shall also educate passengers for opening of automatic doors during emergency.
- iv. Ensuring necessary resources i.e. trained operation and maintenance staff and adequate number of spare parts/ consumables for running & operation of AC EMU train.


05.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

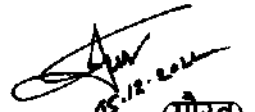
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/26/12-CAR-AC-EMU

New Delhi, dated 05.12.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/25/2019-20-T.W, dated 23.09.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. ED/Coaching, Railway Board
6. EDME(Coaching), Railway Board


05.12.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued vide E-mail


06/12/22
ADE(CIVIL)



14



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/35/ RGM-10 Stone/ BG-SG-KMRCL

New Delhi, Dated 05.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA to manufacturer General Arrangement Drawing No. 5112695 [Max. Axle Load: (BG-13.05t), (SG-12.88t)] upto maximum speed of 50kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of Kolkata Metro Rail Corporation Ltd. (KMRCL)

Ref: (i) RDSO's letter no. TM/HM/11/32/RGM-HARSCO, Dated 01.09.2022
(ii) CCRS office letter no. Q.12011/16/2022-23-T.W, dated 30.11.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA to manufacturer General Arrangement Drawing No. 5112695 [Max. Axle Load: (BG-13.05t), (SG-12.88t)] upto maximum speed of 50kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of Kolkata Metro Rail Corporation Ltd. (KMRCL), has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

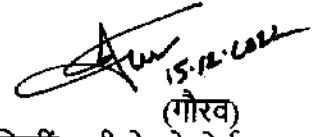
1. It was observed that machine can be moved and grinding operation can be performed even when the covers of grinding buggies are in open condition. As this may cause injury to the person standing nearby and in extreme case the protruding part may also hit any fixed structure, the movement and working of the machine should be prohibited in case the covers are accidentally left open.
2. As the machine has been designed to Standard Gauge (width 2630 mm), there was sufficient gap between the BG catwalk & machine which may cause entrapment of foot of the maintenance personnel or in extreme case he may even fall down while entering or coming out from the engine room or driver's cab. It is therefore suggested that either a catwalk to Standard Gauge dimensions or hydraulic platform may be provided for maintenance of the machine while the machine is being operated over Broad Gauge.
3. Railway Board may issue suitable guidelines regarding training to be imparted to the operator (private person) & the qualification of the Railway staff accompanying the machine for calling out the signals & rendering other assistance during operation & movement of the machine.
4. It shall be ensured that staff working with RGM should wear protective gear such as Helmets, goggles. Reflective jackets, shoes etc. during operations.
5. Only one 3.68kg capacity fire extinguisher has been provided inside main cab of the machine. Other cab should also be equipped with similar fire extinguisher.

15.12.2022

- (15)
6. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
 7. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
 8. Speed limit of the machine should be prominently displayed on either side of the cab

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.


15.12.2022
(गौरव)

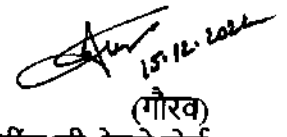
निदेशक सिविल इंजीनियरिंग(जी)रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/35/ RGM-10 Stone/ BG-SG-KMRCL

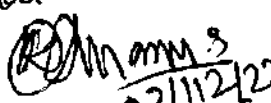
New Delhi, Dated 05.12.2022

Copy forwarded for information to :

1. Principal Executive Director (Infra)-1, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&MC) Railway Board


15.12.2022
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)रेलवे बोर्ड

Issued through E-mail on dt 07/12/22

07/11/22
ADE (CIVIL)



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

16
N.E. Rly 31-140, N.Rly. 33-290
फैसल/फैक्स-0522-2233055, 2233087
E-mail: chiefcsm@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/16/2022-23-स.वि.

दिनांक-30.11.2022

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[व्यापार्य:EDCE(G)]

विषय: Introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA to manufacturer General Arrangement Drawing No. 5112695 [Max. Axle Load: (BG-13.05t), (SG-12.88t)] upto maximum speed of 50kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of Kolkata Metro Rail Corporation Ltd. (KMRCL).

- संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/32/RGM-Harsco, Dated 31.08.2022
(ii) RDSO's Provisional Speed Certificate no. TM/HM/11/32/RGM-Harsco, Dated 28.06.2022
(iii) This office's letter of even no. dated 19.09.2022
(iv) RDSO's letter no. TM/HM/11/32/RGM-Harsco, dated 22.09.2022
(v) This office letter of even no. dated. 14.10.2022
(vi) This office letter of even no. dated. 17.11.2022

Vide ref (i), DG/RDSO has approached this office for recommending sanction of Central Government for introduction of subject rolling stock, up to a maximum speed of 50kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of KMRCL on the basis of RDSO's PSC mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was advised to furnish certain clarifications on the subject case. Clarifications on the issues were submitted by RDSO to this office vide reference (iv) [copy enclosed]. Vide reference (v) [copy enclosed], RDSO was advised to make the machine available at Kolkata for statutory inspection by CCRS. In consultation with RDSO the statutory inspection was fixed on 25.11.2022

Statutory inspection of the subject rolling stock was carried out by CCRS on 25/11/2022 at Metro Car Shed, Mahanayak Uttam Kumar Metro Station, Kolkata. Inspection report of the rolling stock is enclosed as **Annexure-1**.

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA to manufacturer General Arrangement Drawing No. 5112695 [Max. Axle Load: (BG-13.05t), (SG-12.88t)] upto maximum speed of 50 [FIFTY] kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of KMRCL with conditions mentioned in **Annexure-2**.

Observations from CCRS Inspection Report about Measures to be taken before introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 are enclosed as **Annexure-3**. The compliance of the same should be submitted to the Commission before introduction of the subject rolling stock.

Further, Measures for future improvement of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 are attached as **Annexure-4**.

This is issued with the approval of Chief Commissioner of Railway Safety.

An Siddiqui

30/11/2022

(अहमद नदीम सिद्दीकी)

उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (ट्रेक मशीन)

ट्रेक मशीन निदेशालय

अनुसंधान, अभिकल्प एवं मानक संगठन

मानक नगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA to manufacturer General Arrangement Drawing No. 5112695 [Max. Axle Load: (BG-13.05t), (SG-12.88t)] upto maximum speed of 50kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of Kolkata Metro Rail Corporation Ltd. (KMRCL)

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/32/RGM-Harsco, Dated 28.06.2022 for operation up to a maximum speed of 50 kmph in train formation. **Remarks of the Railway/KMRCL against each Para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. It shall be ensured that staff working with RGM should wear protective gear such as Helmets, goggles, masks, Reflective jackets, shoes etc. to avoid any injury due to flying of ballast & other small particles.
4. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
5. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.
6. Rail Grinding Machine shall be maintained as per OEM's maintenance manual.

Ansiddiqui

Measures to be taken before introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67

Statutory inspection of the rolling stock by the CCRS was carried out on 25/11/2022 at Metro Car Shed, Mahanayak Uttam Kumar Metro Station, Kolkata. Para 3 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

1. It was observed that machine can be moved and grinding operation can be performed even when the covers of grinding buggies are in open condition. As this may cause injury to the person standing nearby and in extreme case the protruding part may also hit any fixed structure, the movement and working of the machine should be prohibited in case the covers are accidentally left open.
2. As the machine has been designed to Standard Gauge (width 2630 mm), there was sufficient gap between the BG catwalk & machine which may cause entrapment of foot of the maintenance personnel or in extreme case he may even fall down while entering or coming out from the engine room or driver's cab. It is therefore suggested that either a catwalk to Standard Gauge dimensions or hydraulic platform may be provided for maintenance of the machine while the machine is being operated over Broad Gauge.
3. Railway Board may issue suitable guidelines regarding training to be imparted to the operator (private person) & the qualification of the Railway staff accompanying the machine for calling out the signals & rendering other assistance during operation & movement of the machine.
4. It shall be ensured that staff working with RGM should wear protective gear such as Helmets, goggles, Reflective jackets, shoes etc. during operations.
5. Only one 3.68kg capacity fire extinguisher has been provided inside main cab of the machine. Other cab should also be equipped with similar fire extinguisher.
6. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
7. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
8. Speed limit of the machine should be prominently displayed on either side of the cab

Ansiddiquei

Measures for future Improvement of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67

Statutory inspection of the rolling stock by the CCRS was carried out on 25/11/2022 at Metro Car Shed, Mahanayak Uttam Kumar Metro Station, Kolkata. Para 4 of CCRS Inspection Report which suggests the measures for future improvement of the machine is reproduced below for taking necessary action for their implementation:

1. Diesel hydraulic transmission has been provided in the machine. In case of failure of hydraulic system due to leakage of hydraulic oil, machine can't be hauled on its own even when its engine is in working condition. This may cause severe repercussion on train punctuality in case of such failure in a block section. In view of the above, provision of Diesel electric transmission system in lieu of diesel hydraulic system may be explored in future designs of the machine.
2. Hand operated hydraulic pump has been provided for filling of diesel and hydraulic oil. Feasibility of providing electrical pump in place of manual pump may be explored and implemented, if possible.
3. 2 nos. CCTV cameras have been provided to assist the operator carry out the grinding operations. However, there is no provision to record the CCTV footage for reference during investigation/enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days. Provision of CCTV cameras with recording facility inside the cabs of the machine may also be explored in future design of the machine.
4. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
5. Deadman's handle and/or Vigilance Control Device similar to what is available in locomotives should be provided. It is much more essential in this rolling stock as it is driven by single crew.
6. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
7. Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output.

Ansiddiqui



**Statuary inspection of Rail Grinding Machine (RGM 10 Stone), Model
RGH10C2-67 supplied by M/s Harsco Rail, USA**

1. RDSO vide letter no. TM/HM/11/32/RGM-Harsco, Dated 31.08.2022 has submitted a proposal for introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 supplied by M/s Harsco Rail, USA upto a maximum speed of 50 Kmph when running on its own power as well as in train formation over BG rail network of Metro Railway, Kolkata and SG Rail network of KMRCL. This application has been submitted based on RDSO's Provisional Speed certificate (PSC) no. TM/HM/11/32/RGM-Harsco, Dated 28.06.2022 respectively. Vide this office letter no. Q.12011/16/2022-23-T.W. Dated 19.09.2022, RDSO was advised to furnish certain clarifications on the subject proposal. RDSO vide its letter Dated 22.09.2022 furnished clarifications on the observations. Further vide this office letter Dated 14/10/2022, RDSO was advised to make the machine available at Kolkata for statutory inspection. In consultation with RDSO the statutory inspection was fixed on 25.11.2022.
2. Accordingly, I had inspected the rolling stock at Metro Car Shed, Mahanayak Uttam Kumar Metro Station, Kolkata on 25/11/2022. Dy.CRS/Mechanical/LKO, PCE/Metro Railway Kolkata, CE/Metro Railway Kolkata, ED/TM/RDSO & other officials of RDSO and Metro Railway Kolkata accompanied me during the inspection. After inspection, the working of machine was observed in yard of Metro Car Shed, Mahanayak Uttam Kumar Metro Station, Kolkata.
Based on the inspection of rolling stock and the documents submitted by the RDSO, the subject rolling stock is recommended for sanction of Central Govt. subject to the compliance of the conditions mentioned in Para 2 & 3 below:
3. **Measures to be taken before introduction of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67**
 - (a) It was observed that machine can be moved and grinding operation can be performed even when the covers of grinding buggies are in open condition. As this may cause injury to the person standing nearby and in extreme case the protruding part may also hit any fixed structure, the movement and working of the machine should be prohibited in case the covers are accidentally left open.
 - (b) As the machine has been designed to Standard Gauge (width 2630 mm), there was sufficient gap between the BG catwalk & machine which may cause entrapment of foot of the maintenance personnel or in extreme case he may even fall down while entering or coming out from the engine room or driver's cab. It is therefore suggested that either a catwalk to Standard Gauge dimensions or hydraulic platform may be provided for maintenance of the machine while the machine is being operated over Broad Gauge.
 - (c) Railway Board may issue suitable guidelines regarding training to be imparted to the operator (private person) & the qualification of the Railway staff accompanying the machine for calling out the signals & rendering other assistance during operation & movement of the machine.
 - (d) It shall be ensured that staff working with RGM should wear protective gear such as Helmets, goggles. Reflective jackets, shoes etc. during operations.

- (21)
- (e) Only one 3.68kg capacity fire extinguisher has been provided inside main cab of the machine. Other cab should also be equipped with similar fire extinguisher.
 - (f) When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
 - (g) All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
 - (h) Speed limit of the machine should be prominently displayed on either side of the cab.

4. Measures for future improvement of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67

- (a) Diesel hydraulic transmission has been provided in the machine. In case of failure of hydraulic system due to leakage of hydraulic oil, machine can't be hauled on its own even when its engine is in working condition. This may cause severe repercussion on train punctuality in case of such failure in a block section. In view of the above, provision of Diesel electric transmission system in lieu of diesel hydraulic system may be explored in future designs of the machine.
- (b) Hand operated hydraulic pump has been provided for filling of diesel and hydraulic oil. Feasibility of providing electrical pump in place of manual pump may be explored and implemented, if possible.
- (c) 2 nos. CCTV cameras have been provided to assist the operator carry out the grinding operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days. Provision of CCTV cameras with recording facility inside the cabs of the machine may also be explored in future design of the machine.
- (d) Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
- (e) Deadman's handle and/or Vigilance Control Device similar to what is available in locomotives should be provided. It is much more essential in this rolling stock as it is driven by single crew.
- (f) Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
- (g) Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output.

5. Technical details of Rail Grinding Machine (RGM 10 Stone), Model RGH10C2-67 is enclosed as Annexure-A.


(Shailesh Kumar Pathak)
Chief Commissioner of Railway Safety

Copy forwarded for information and necessary action to:

1. The Secretary (Civil Engg.), Ministry of Railways, Railway Board, New Delhi
2. The Director General, RDSO, Lucknow



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/36/ 8-CAR-MEMU-110Kmph

New Delhi, Dated 05.12.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 8-car rake formation MEMU stock {**Transportation code :** MEMU/DMC/IGBT/US/, MEMU/TC1/IGBT/US, MEMU/TC2/IGBT with main compressor and **Layout Drawing No.:** MEMU/DMC/3PH/US-9-0-001, MEMU/TC7-9-0.001, MEMU/TC7-9-0.001 for Driving Motor Coach (DMC:787), Trailer Coach (TC7: 789), Trailer Coach (TC8:799) with main compressor} respectively fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage and modified secondary suspension arrangement manufactured by ICF, up to a maximum operational speed of **110 kmph** on track maintained as per Para 522 of IRPWM June 2020 over **Indian Railway**, by Zonal Railways

Ref: (i) RDSO's letter no. MC/MEMU/3-Phase/US/ICF, dated 13.04.2022
(ii) CCRS office letter no. Q.12011/26/2019-20-T.W, dated 30.11.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of 8-car rake formation MEMU stock {**Transportation code :** MEMU/DMC/IGBT/US/, MEMU/TC1/IGBT/US, MEMU/TC2/IGBT with main compressor and **Layout Drawing No.:** MEMU/DMC/3PH/US-9-0-001, MEMU/TC7-9-0.001, MEMU/TC7-9-0.001 for Driving Motor Coach (DMC:787), Trailer Coach (TC7: 789), Trailer Coach (TC8:799) with main compressor} respectively fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage and modified secondary suspension arrangement manufactured by ICF, up to a maximum operational speed of **110 kmph** on track maintained as per Para 522 of IRPWM June 2020 over **Indian Railway**, by Zonal Railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

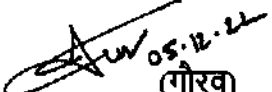
1. Aerosol-based automatic fire detection and suppression system may be provided in all on-board electrical panels.
2. 02 nos. of fire extinguishers should be provided in each trailer coach.
3. There is sufficient gap between fall plate covers/chequered plates provided between two coaches which may cause entrapment of passenger's foot resulting in injury. This gap may be reduced to the extent possible to avoid any such untoward incident.
4. Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.
5. Trilingual (Local language, Hindi, English) stickers mentioning instructions regarding opening of Emergency Windows, opening/closing of door, application of fire extinguisher, use of Emergency Push Button, use of Emergency Talk-Back Unit (ETBU) should be pasted at appropriate locations.

[Signature]
05.12.22

6. Pre-recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel.
7. Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.
8. Training must be imparted to crew on following aspects
 - (i) To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.
 - (ii) Sequence of operations to be performed before accessing HT equipments.
 - (iii) Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.
9. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

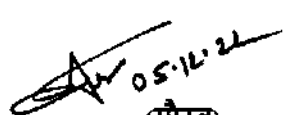

 (गौरव)
 निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
 [Rly No. 030-47598, MTNL No.-011-23047598]
 e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/36/ 8-CAR-MEMU-110Kmph

New Delhi, Dated 05.12.2022

Copy forwarded for information to :

1. Executive Director (Standards) Carriage, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Chg) Railway Board


 (गौरव)
 निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

Issued through E-mail


 07/12/22
 ADEC(CIVIL)



भारत सरकार
नागर विमानन मंत्रालय
(रेल संस्था आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

24
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N.E. Rly. 31 140, N.Rly. 23-299
फैक्स/फैक्स: 0622 2233088, 2233087
E-mail: chiefcomr@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/26/2019-20-त.वि.

दिनांक-30.11.2022

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

(ध्यानार्थ-EDCE(G))

विषय: Introduction of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage, upto a maximum speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522.

- संदर्भ:** (i) DG/RDSO's letter No. MC/MEMU/3-Phase/US/ICF, dated 13.04.2022
(ii) RDSO's Final Speed Certificate (FSC) No. MC/MEMU/3-Phase/US/ICF, dated 20.12.2019 and its Amendment no. 1 dated 29.03.2022
(iii) This office's letter of even no. dated 28.04.2022
(iv) RDSO's letter no. MC/MEMU/3-Phase/US/ICF, dated 13.06.2022
(v) This office letter of even no. dated. 01.07.2022
(vi) RDSO's letter no. MC/MEMU/3-Phase/US/ICF, dated 22.11.2022
(vii) This office letter of even no. dated. 28.11.2022

Vide ref (i), DG/RDSO has approached this office for recommending sanction of Central Government for introduction of subject rolling stock, up to a maximum speed of 110 kmph over IR routes on the basis of RDSO's FSC mentioned under reference (ii).

The subject proposal was examined in this office and RDSO was advised to furnish certain clarifications vide reference (iii) [copy enclosed]. In response, RDSO vide reference (iv) [copy enclosed] submitted clarifications. On scrutiny of the RDSO's submission, it was observed that there are no emergency windows and fire extinguisher in any coach and the no. of ACP devices were also reduced to 2 from 7/8 in earlier designs of MEMU. Accordingly, RDSO, vide reference (v) [copy enclosed] was advised to furnish further clarifications on the abovementioned issues. RDSO, vide reference (vi) [copy enclosed] submitted compliance of the abovementioned observations wherein it was confirmed that 04 nos. of emergency windows have been fitted in all coaches, 02 nos. fire extinguishers have been provided in DMC coaches and 04 nos. of Emergency Push Buttons per coach have been provided. Further, vide reference (vii) [copy enclosed], RDSO was advised to make the MEMU rake available at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi for statutory inspection by the CCRS.

Statutory inspection of the subject rolling stock was carried out by CCRS on 29/11/2022 at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi. Inspection report of the rolling stock is enclosed as Annexure-1.

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage, upto a maximum speed of 110 [ONE HUNDRED TEN] kmph over IR routes with conditions mentioned in Annexure-2.

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage' are enclosed as Annexure-3. The compliance of the same should be submitted to the Commission before introduction of the subject rolling stock.

AnSiddiqui

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Further, 'Measures for future improvement of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage' are attached as Annexure-4.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ansiddiqui
30/11/2012
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त
प्रतिलिपि:
महानिदेशक (सवारी डिब्बा)
सवारी डिब्बा निदेशालय
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ-226011

Measures to be taken before introduction of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage

Statutory inspection of the rolling stock by the CCRS was carried out on 29/11/2022 at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi. Para 4 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

1. Aerosol-based automatic fire detection and suppression system may be provided in all on-board electrical panels.
2. 02 nos. of fire extinguishers should be provided in each trailer coach.
3. There is sufficient gap between fall plate covers/chequered plates provided between two coaches which may cause entrapment of passenger's foot resulting in injury. This gap may be reduced to the extent possible to avoid any such untoward incident.
4. Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.
5. Trilingual (Local language, Hindi, English) stickers mentioning instructions regarding opening of Emergency Windows, opening/closing of door, application of fire extinguisher, use of Emergency Push Button, use of Emergency Talk-Back Unit (ETBU) should be pasted at appropriate locations.
6. Pre-recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel.
7. Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.
8. Training must be imparted to crew on following aspects
 - (i) To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.
 - (ii) Sequence of operations to be performed before accessing HT equipments.
 - (iii) Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.
9. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff.

Ansiddiqui

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Conditions to be ensured by the Railway for operation of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage, upto a maximum speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522

1. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MC/MEMU/3-Phase/US/ICF, dated 20.12.2019 and its Amendment no. 1 dated 29.03.2022. Remarks of the Railways against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running
4. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
5. Railway shall comply all the stipulations mentioned in the EIG (Northern Railway) letter no. 232-Elect/EMU/US-MEMU dated 08.02.2021 for 8-car rake formation MEMU rake
6. Earthing in the coach body & all the panels shall always be properly maintained.

Ansiddique



Statutory inspection of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage

1. RDSO vide letter no. MC/MEMU/3-Phase/US/ICF, dated 13.04.2022 submitted a proposal for introduction of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system upto a maximum speed of 110 kmph over IR. This application has been submitted based on RDSO's Final Speed Certificate No. MC/MEMU/3-Phase/US/ICF, dated 20.12.2019 and its Amendment no. 1 dated 29.03.2022.
2. The subject proposal has been examined in this office and RDSO was advised to furnish certain clarifications vide this office letter no. Q.12011/26/2019-20-T.W. dated 28.04.2022. In response, RDSO vide its letter dated 13.06.2022 submitted clarifications. On scrutiny of the RDSO's submission, it was observed that there are no emergency windows and fire extinguisher in any coach and the no. Of ACP devices were also reduced to 2 from 7/8 in earlier designs of MEMU. Accordingly, RDSO, vide this office letter dated 01.07.2022 was advised to furnish further clarifications on the abovementioned issues. RDSO, vide its letter dated 22.11.2022 submitted compliance of the abovementioned observations wherein it confirmed that 04 nos. of emergency windows have been fitted in all coaches, 02 nos. fire extinguishers have been provided in DMC coaches and 04 nos. of Emergency Push Buttons per coach have been provided. Further vide this office letter dated 28/11/2022, RDSO was advised to make the MEMU rake available at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi for statutory inspection.
3. Accordingly, I had inspected the rolling stock at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi on 29/11/2022. Dy.CRS/G/LKO Dy.CRS/S&T/LKO Dy.CRS/Mechanical/LKO, ED/Carriage/RDSO, ED/PS & EMU, CDE/Mech./ICF, CDE/Elect./ICF, CRSE/Coaching/NR & other officials of RDSO, ICF and Northern Railway accompanied me during the inspection. After the inspection, speed trial was conducted from Safdarjung to Palwal and back at maximum speed upto 120kmph on the same day.

Based on the inspection of rolling stock and the documents submitted by the RDSO, the subject rolling stock is recommended for sanction of Central Govt. subject to the compliance of the conditions mentioned in Para 3 & 4 below:

4. **Measures to be taken before introduction of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage**
 - (a) Aerosol-based automatic fire detection and suppression system may be provided in all on-board electrical panels.
 - (b) 02 nos. of fire extinguishers should be provided in each trailer coach.
 - (c) There is sufficient gap between fall plate covers/chequered plates provided between two coaches which may cause entrapment of passenger's foot resulting in injury. This gap may be reduced to extent possible to avoid any such untoward incident.
 - (d) Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.

30/11/22

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Measures for future improvement of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage

Statutory inspection of the rolling stock by the CCRS was carried out on on 29/11/2022 at Safdarjung Railway Station (DSJ), Northern Railway, New Delhi. Para 5 of CCRS Inspection Report which suggests the measures for future improvement of the rolling stock is reproduced below for taking necessary action for their implementation;

1. Voice logger may be provided for Emergency Talk-Back Unit (ETBU) and for communication between driver and guard with provision of voice recording for at least one hour duration.
2. Provision of Volume Control in PA/PIS should be provided from both the cabs.
3. Vigilance Control Device (VCD) has not been provided in the driver's cab. It may be provided in the future rakes and retrofitted in the existing ones to enhance safety in case of any untoward incident.
4. Provision of Aerosol-based automatic fire detection and suppression system in underslung electrical components may be explored in future rakes and implemented, if possible.

Ansiddiqui

- (e) Trilingual (Local language, Hindi, English) stickers mentioning instructions regarding opening of Emergency Windows, opening/closing of door, application of fire extinguisher, use of Emergency Push Button, use of Emergency Talk-Back Unit (ETBU) should be pasted at appropriate locations.
 - (f) Pre-recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel.
 - (g) Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.
 - (h) Training must be imparted to crew on following aspects
 - i. To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.
 - ii. Sequence of operations to be performed before accessing HT equipments.
 - iii. Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.
 - (i) Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff.
- 5. Measures for future improvement of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage**
- (a) Voice logger may be provided for Emergency Talk-Back Unit (ETBU) and for communication between driver and guard with provision of voice recording for at least one hour duration.
 - (b) Provision of Volume Control in PA/PIS should be provided from both the cabs.
 - (c) Vigilance Control Device (VCD) has not been provided in the driver's cab. It may be provided in the future rakes and retrofitted in the existing ones to enhance safety in case of any untoward incident.
 - (d) Provision of Aerosol-based automatic fire detection and suppression system in underslung electrical components may be explored in future rakes and implemented, if possible.
- 6. Technical details of 8-car rake formation MEMU stock fitted with underslung 3-phase IGBT based propulsion system and having pneumatic suspension in secondary stage is enclosed as Annexure-A.**


 (Shailash Kumar Pathak)
 Chief Commissioner of Railway Safety

Copy forwarded for information and necessary action to:

1. The Secretary (Civil Engg.), Ministry of Railways, Railway Board, New Delhi
2. The Director General, RDSO, Lucknow



75
आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SD/RS/10/'RORO'

New Delhi, dated 05.12.2022

The Director General
Research Designs & Standards Organisatio
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO'(Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*

Ref: (i) ED(Standards)/Wagon, RDSO letter no. MW/SPD/BG/RORO, dated 23.09.2022
(ii) Railway Board's letter of even no., dated 26.08.2022
(iii) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(iv) CCRS office letter no. Q.14011/02/2022-23-TW, dated 16.07.2022

While processing the above cited case for the sanction of the Railway Board for Condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO'(Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*, MEMBER(O&BD), has passed following remarks, reproduced as under:

"Stipulation i. of CCRS office letter no. Q.14011/02/2022-23-TW, dated 16.07.2022 talks about removing of infringement only in the electrified territory. Pl checks whether any infringement removing is required in non-electrified territory as well".

RDSO is requested to examine the issues involved and submit revised proposal routed through CCRS as per extent of rules/procedure at the earliest, if required.

DA: as above

05.12.22
(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dcsg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Fr.) Railway Board

Issued through E-mail

07/12/22
ADEC(IV)



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233085, 2233108
E-mail: chiefc.com@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.14011/02/2022-23-त.वि.

दिनांक-16.07.2022

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Condonation of Infringement for movement of Broad Gauge Bogie Flat wagon type 'RORO' (Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railways B.G routes & routes of Eastern and Western Dedicated Freight Corridors of DFCCIL

- संदर्भ:** (i) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(ii) This office's letter of even no. dated 27.04.2022
(iii) RDSO's letter no. MW/CONTR/BG/MG, dated 29.06.2022

Vide reference above, Executive Director (Track-I)/RDSO has approached this office seeking condonation of infringements to IR BG Schedule of Dimension (Revd. 2004) and DFCCIL-SOD by the subject rolling stock which infringes **Clause 2(ii)** [Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5 mm from wheel gauge face], **Clause 11** [Minimum height above rail level for floor of fully loaded goods vehicle], **Clause 14** [Minimum height above rail level for centers of buffers & CBC couplers when fully loaded] and **Clause 30** [Maximum height above rail level at sides of unloaded vehicle] of **Chapter IV(A) of IRSOD, BG Rev. 2004** and **Clause 4.3.3 of EDFC-SOD & Clause 11.3.3 of WDFC-SOD** [Minimum height above rail level for centers of buffers & CBC couplers when fully loaded].

Vide reference (ii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. RDSO, vide reference (iii) [copy enclosed] submitted its reply.

Case has been examined by this office in light of abovementioned documents/clarifications and is found to be in order. Accordingly, the same is recommended for sanction of the Central Government with the following conditions:

- Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation in electrified territory.
- Any road vehicle outside the profile proposed for condonation shall be treated as Over Dimensional Consignment (ODC) and operated accordingly.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.07.16
15:52:57 +05'30'

संलग्नक: यथोक्त

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

प्रतिलिपि :

कार्यकारी निदेशक मानक/रेलपथ-1, प्रशासनिक भवन, अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-226011



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 70/WDO/ORI/RO/1/Vol.IV

New Delhi dated 29.11.2022

The General Manager,
All Indian Railways

Sub: Regarding clarification about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per the "Railway Opening for Public Carriage of Passengers Rules, 2000"

Ref : (i) ECoR's letter No. PCOM/Plg./BBS/CRS Sanction dated 19.07.2022
(ii) SER's letter No. P64/1225/ CRS Sanction dated 16.06.2022
(iii) CTPM/WCR's letter No. WCR-JBP/T-1414 dated 20.04.2022
(iv) ED/Signal note No. 2012/Sig/ORI, dated 11.11.2022

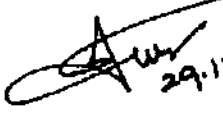
References received from ECoR, SER and WCR to issue clarification about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per the "Railway Opening for Public Carriage of Passengers Rules, 2000". The matter has been examined in details in Board's office and considering relevant provisions in consonance together and not in isolation, Signal Dte. Opines that :

- "1. Whenever a trap is provided at adequate distance beyond the signal, prescribed in GR 3.40-(1) to (3), the trap need not be closed during admitting a train. It can be kept open for isolation.
2. Also whenever a trap is provided at a distance less than the adequate distance, under approved special instructions as a derailing switch, as per Para 3.40(4), the trap need not be closed. It can be kept open for isolation"

Further, if deemed necessary, even after above clarifications, then for implementation of provisions of GR 3.40 along with method C given below, Rule 36 of Railways opening for Public Carriage of Passengers Rule 2000 may be processed for modification as :

Method C : When a trap is used, a train must not be admitted on to the trapped lines unless the trap has been closed. so that the train will not be derailed if the driver over shoots the trap unless trap has been provided at an adequate distance as per GR Para 3.40(1-3) or under approved special instructions as per GR Para 3.40(4)

Railways may take necessary action accordingly.


29.11.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

Copy forwarded for information to :

1. ED/Safety-II, Railway Board
2. ED(Signal), Railway Board

Issued on 29/11/22 vide E-mail



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/28/BLSS-DS-65kmph

New Delhi, Dated 28.11.2022

The Director General,
Research Designs & Standards Organisation,
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 (A-Car) and Drg. No. BWT/SPINE CAR-003 & 004 (B-Car), up to a maximum speed of 65 kmph without container, with Double Stack Containers in empty and loaded conditions over Indian Railway, by Zonal Railways

Ref:(i) CCRS office letter no. Q.12011/07/2022-23-T.W. BLSS/DS, dated 11.10.2022

(ii) RDSO's letter No. MW/PWDA/CONTR/BRAITHWATE dated 02.05.2022

(iii) RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/DSC/22.9, dated 27.04.2022 and its Amendment no. 1 dated 11.08.2022

With reference to RDSO above application {ref.ii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 (A-Car) and Drg. No. BWT/SPINE CAR-003 & 004 (B-Car), up to a maximum speed of 65 kmph without container, with Double Stack Containers in empty and loaded conditions over Indian Railway, by Zonal Railways with the following stipulations:

- Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/DSC/22.9, dated 27.04.2022 and its Amendment no. 1 dated 11.08.2022, for operation up to a maximum speed of 65 kmph without container, with Double Stack Containers in empty and loaded conditions shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- List of routes identified for 22.9t axle load shall be submitted to the Commission before the start of actual operation of rolling stock.

[Signature]
28.11.22

- iv. The compliance of all the stipulations mentioned in Railway Board Letter No. 2020/CE-II/TS/22.82 dt 20.08.2020 shall be ensured by the Railways.
- v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks.
- vi. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
- vii. The **WILD** shall **mandatorily** be provided before introduction of wagon at speed above 60 Kmph. For speed up to 60 Kmph the WILD may be progressively installed. 100% weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.
- viii. No overdue in track/rolling stock maintenance shall be permitted.
- ix. Right powering of loaded trains running with 22.9t axle load wagons shall be ensured.
- x. USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present stipulation corresponds to 8 GMT).
- xi. As per Clause 3.1.3 of RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/ CONTR/BRAITHWATE/DSC/22.9, dated 27.04.2022, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 0 C (Tm to Tm+5).

Further, as per clause 3.1.3 for operation in Loaded condition for speed above 60 kmph and up to 65 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.

28.11.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/28/BLSS-DS-65kmph

New Delhi, Dated 28.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/07/2022-23-T.W.BLSS/DS, dated 11.10.22
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDME(Fr) Railway Board

28.11.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued on 27.11.22 also E-mailed

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/28(1)/BLSS-DS-65kmph

New Delhi, Dated 28.11.2022

The Director General,
Research Designs & Standards,
Manak Nagar,
Lucknow-226011.

Sub: Future Improvement of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 (A-Car) and Drg. No. BWT/SPINE CAR-003 & 004 (B-Car)

Ref: (i) Railway Board's letter no. 2022/CEDO/SR/28/BLSS-DS-65kmph dated 28.11.2022

(ii) CCRS office letter no. Q.12011/07/2022-23-T.W. BLSS/DS, dated 11.10.2022

(iii) RDSO's letter No. MW/PWDA/CONTR/BRAITHWATE dated 02.05.2022

(iv) RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/DSC/22.9, dated 27.04.2022 and its Amendment no. 1 dated 11.08.2022

With reference to RDSO above application {ref.iii}, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002(A-Car) and Drg. No. BWT/SPINE CAR-003 & 004(B-Car), up to a maximum speed of 65 kmph without container, with Double Stack Containers in empty and loaded conditions over Indian Railway, by Zonal Railways vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following measures for future improvement of the above rolling stock:

- i. BLSS wagon is proposed to be operated at 22.9t axle load and at a speed of 65kmph both in E/L conditions based on above mentioned PSC. In order to realize its full axle load and speed potential, oscillation trials over IR & DFC routes may be planned at the earliest.
- ii. Rake of the proposed wagon has only 4 nos. of A-Cars in its configuration resulting in increased throughput due to more no of wagons per rake. This type of configuration may also be implemented in rakes having BLCS wagons.
- iii. Rakes of the existing containers wagons like BLC/BLCM, BLL/BLLM consist of 9 units having 2 A-cars & 3 B-cars(45 wagons in a rake).Due to more no of A-cars, which are longer in length, overall no of wagons in the rake is reduced thereby decreasing throughput. It is, therefore,

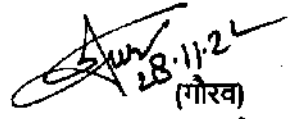
[Signature]
28.11.22

37

suggested that in future, these wagons may also be manufactured having Centre Buffer Coupler (CBC) only to increase the no of wagon in the rake thereby increasing throughput.

- iv. As the length of the loop lines in DFCCIL are more than that of IR, rakes having more units than what is specified for IR may be operated over DFCCIL for increasing throughput.

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

 28.11.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

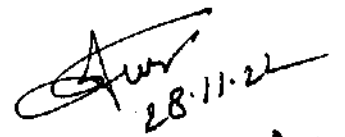
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/28(1)/BLSS-DS-65kmph

New Delhi, Dated 28.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/07/2022-23-T.W.BLSS/DS, dated 11.10.22
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDME(Fr) Railway Board

 28.11.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued on 28/11/22 vide E-mail
AD/MS/MS
29/11/22
ADE (Civil)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



2022-CEDO-SD-RS-18-BCATIC-4875x2600-DSDC

New Delhi, dated 28.11.2022

The Director General
Research Designs & Standards Organisation,
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement w.r.t IRSOD (BG) Revised, 2022 by **maximum height (4875mm)** and **maximum side height (4875mm)** of Bogie Covered Autocar Taller wagon type 'BCATIC' having a height of 4875mm and width of 2600 mm as per RDSO Drawing no. WD-22029-S-01 for operation over **DSDC routes of Indian Railways and other routes identified by Railway Board** which are suitable for transportation of these wagons

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 26.07.2022 & 19.09.2022
(ii) CCRS office letter no. Q.14011/04/2022-23-T.W., dated 28.09.2022

With reference to RDSO above applications {ref.(i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I, IRSOD (BG) Revised, 2022 by **maximum height (4875mm)** and **maximum side height (4875mm)**, of Bogie Covered Autocar Taller wagon type 'BCATIC' having a height of 4875mm and width of 2600 mm as per RDSO Drawing no. WD-22029-S-01 for operation over **DSDC routes of Indian Railways and other routes identified by Railway Board** which are suitable for transportation of these wagons, as shown in detail enclosed with above mentioned application, detail of infringements are as under:

- i. **Clause 30-** Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 610 mm (i.e. 4875 mm instead of 4265 mm)
- ii. **Clause 31-** Max. height above rail level at side of unloaded vehicle by 1034 mm at the beginning of slope line to 941 mm (i.e. 4875mm instead of 3735mm)

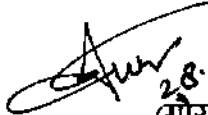
Further, above sanction of condonation is subject to the following stipulations:

- i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of these autocar wagons in electrified territory.

[Signature]
28.11.2022

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- ii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in Note mentioned in Annexure of RDSO's application dt. 19.09.2022 shall be adhered to before introducing operation of subject rolling stock.
- iii. All the necessary conditions related to infringements and various clearances to be ensured and precautions to be taken during operation by the Railways shall form part of the RDSO speed certificate, whenever issued.
- iv. Before introduction of subject wagons, Electrical Inspector (EIG) of the concerned Zonal Railway shall approve special clearance study report of restricted head room for over line structures on particular line/track in the route either already electrified or planned to be electrified


28.11.2022
(गौरव)

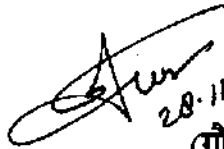
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

2022-CEDO-SD-RS-18-BCATIC-4875x2600-DSDC

New Delhi, dated 28.11.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-226001 w.r.t. his endorsement No. Q.14011/04/2022-23-T.W., dated 28.09.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Fr.)/Railway Board, New Delhi


28.11.2022
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

Issued on 28.11.22 also E-mailed

29/11/22
ADE (CIVIL)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SR-29(1)-BLSS-SS-65kmph

New Delhi, dated 24.11.2022

The Director General,
Research Designs & Standards,
Manak Nagar, Lucknow-226011.

Sub: Future Improvement of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to BLSS (A-Car) to Drg. No. BWT/SPINE CAR-001 & 002 and BLSS (B-Car) to Drg. No. BWT/SPINE CAR-003 & 004 with Single Stack Containers

Ref: (i) Railway Board's letter no. 2022/CEDO/SR/29/BLSS-SS-65kmph dated 24.11.2022
(ii) CCRS office letter no. Q.12011/07/2022-23-T.W. BLSS/SS, dated 11.10.2022
(iii) RDSO's letter No. MW/PWDA/CONTR/BRAITHWATE, dated 02.05.2022
(iv) RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/SS/22.9, dated 27.04.2022 and its Amendment no. 1 dated 11.08.2022

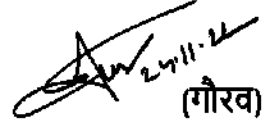
With reference to RDSO above application {ref.iii}, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 and Drg. No. BWT/SPINE CAR-003 & 004, up to a maximum speed of 65 kmph **without container**, with **Single Stack Containers in empty and loaded conditions** over Indian Railway, by Zonal Railways vide RB's letter under reference (i) above. CCRS, while recommending for introduction of above Rolling Stock to Railway Board has suggested **following measures for future improvement of the above rolling stock:**

- i. BLSS wagon is proposed to be operated at 22.9t axle load and at a speed of 65kmph both in E/L conditions based on above mentioned PSC. In order to realize its full axle load and speed potential, oscillation trials over IR & DFC routes may be planned at the earliest.
- ii. Rake of the proposed wagon has only 4 nos. of A-Cars in its configuration resulting in increased throughput due to more no of wagons per rake. This type of configuration may also be implemented in rakes having BLCS wagons.
- iii. Rakes of the existing containers wagons like BLC/BLCM, BLL/BLLM consist of 9 units having 2 A-cars & 3 B-cars(45 wagons in a rake).Due to more no of A-cars, which are longer in length, overall no of wagons in the rake is reduced thereby decreasing throughput. It is, therefore, suggested that in future, these wagons may also be manufactured having Centre Buffer Coupler (CBC) only to increase the no of wagon in the rake thereby increasing throughput.
- iv. As the length of the loop lines in DFCCIL are more than that of IR, rakes having more units than what is specified for IR may be operated over DFCCIL for increasing throughput.

[Signature]
24.11.22

(41)

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.


(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

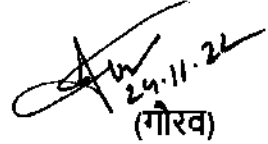
e-mail address: dceg@rb.railnet.gov.in

No. 2022-CEDO-SR-29(1)-BLSS-SS-65kmph

New Delhi, dated 24.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/07/2022-23-T.W. BLSS/SS, dated 11.10.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr) Railway Board


(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued on 28/11/22 Through Email
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(42)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SR-29-BLSS-SS-65kmph

New Delhi, dated 24.11.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

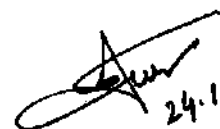
The General Manager,
All Indian Railways

Sub: Introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 (Car-A) and Drg. No. BWT/SPINE CAR-003 & 004 (Car-B), up to a maximum speed of 65 kmph without container, with Single Stack Containers in empty and loaded conditions over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/07/2022-23-T.W. BLSS/SS, dated 11.10.2022
(ii) RDSO's letter No. MW/PWDA/CONTR/BRAITHWATE, dated 02.05.2022
(iii) RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/SS/22.9, dated 27.04.2022 and its Amendment no. 1 dated 11.08.2022

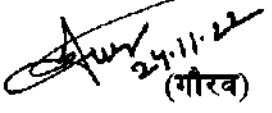
With reference to RDSO above application {ref.ii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Spine Car wagon type BLSS (A-Car & B-Car) at 22.9t axle load to Drg. No. BWT/SPINE CAR-001 & 002 (Car-A) and Drg. No. BWT/SPINE CAR-003 & 004 (Car-B), up to a maximum speed of 65 kmph without container, with Single Stack Containers in empty and loaded conditions over Indian Railway, by Zonal Railways with the following stipulations:

- i. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/SS/22.9, dated 27.04.2022 and its Amendment no.1 dated 11.08.2022, for operation up to a maximum speed of 65 kmph without container, with Single stack containers in empty and loaded conditions shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
- ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- iii. List of routes identified for 22.9t axle load shall be submitted to the Commission before the start of actual operation of rolling stock.
- iv. The compliance of all the stipulations mentioned in Railway Board letter No. 2020/CE-II/TS/22.82 dated 20.08.2020 shall be ensured by the Railways.


24.11.22

- v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks. Railway should ensure adequate/stipulated block for Rail Grinding & other maintenance inputs.
- vi. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
- vii. The **WILD shall mandatorily be provided** before introduction of wagon at speed above 60 Kmph. For speed up to 60 Kmph the WILD may be progressively installed. 100% weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.
- viii. No overdue in track/rolling stock maintenance shall be permitted.
- ix. Right powering of loaded trains running with 22.9t axle load wagons shall be ensured.
- x. USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present stipulation corresponds to 8 GMT).
- xi. As per Clause 3.1.2 of RDSO's Provisional Speed Certificate (PSC) no. MW/PWDA/CONTR/BRAITHWATE/SS/22.9, dated 27.04.2022, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ° C (Tm to Tm+5).

Further, as per clause 3.1.3 for operation in Loaded condition for speed above 60 kmph and up to 65 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**


(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022-CEDO-SR-29-BLSS-SS-65kmph

New Delhi, dated 24.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/07/2022-23-T.W. BLSS/SS, dated 11.10.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr) Railway Board


(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

Issued on 28/11/22 through E-mail

(A) APEC(NIL)

No. 2022-CEDO-SR-31-BCNM2-22.9- IR(75-100)-DFCCIL(100)

New Delhi, dated 24.11.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL, 5th Floor, Supreme Court
Metro Station Building Complex,
New Delhi - 110001.

Sub: Introduction of new type of rolling stock Broad Gauge Bogie Covered wagon type 'BCNM2' [Maximum Axle Load:22.82t] to RDSO's Drawing No. WD-05084-S-05 Alt.7 up to a maximum speed of 100 kmph in empty and 75 kmph in loaded condition over Indian Railway, by Zonal Railways and up to a maximum speed of 100 kmph in both empty and loaded conditions over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

- Ref:** (i) CCRS office letter no. Q.12011/13/2022-23-T.W., dated 14.10.2022
(ii) RDSO's letter no. MW/SPD/BG/BCNM2, dated 22.08.2022
(iii) RDSO's Final Speed Certificate (FSC) no. MW/SPD/BG/BCNM2, dated 18.08.2022

With reference to RDSO above application {ref.ii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Covered wagon type 'BCNM2' [Maximum Axle Load:22.82t] to RDSO's Drawing No. WD-05084-S-05 Alt.7 up to a maximum speed of 100 kmph in empty and 75 kmph in loaded condition over Indian Railway, by Zonal Railways and up to a maximum speed of 100 kmph in both empty and loaded conditions over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL with the following stipulations:

- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MW/SPD/BG/BCNM2, dated 18.08.2022 for operation up to 100 kmph in empty and 75 kmph in loaded condition over Indian Railway, by Zonal Railways and up to a maximum speed of 100 kmph in both empty and loaded conditions over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE (G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
- Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- RDSO should carry out detailed study of poor brake power in BMBS fitted wagons and immediately take corrective measures in all existing & new wagons under intimation to CCRS office.
- List of routes identified for 22.9t axle load shall be submitted to the Commission before the start of actual operation of rolling stock.

[Signature]
24.11.22

Through Email
Issued on 28.11.22 ADEK(VIL)

- (45)
- v. The compliance of all the stipulations mentioned in Railway Board letter No. 2020/CE-II/TS/22.82 dated 20.08.2020 shall be ensured by the Railways.
 - vi. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks. Railway should ensure adequate/stipulated block for Rail Grinding & other maintenance inputs.
 - vii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
 - viii. **For Indian Railways, the WILD shall mandatorily be provided** before introduction of wagon at speed above 60 Kmph. For speed up to 60 Kmph the WILD may be progressively installed. 100% weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.
 - ix. **For DFCCIL, adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored.** 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
 - x. No overdue in track/rolling stock maintenance shall be permitted.
 - xi. Right powering of loaded trains running with 22.82t (CC+8+2) axle load wagons shall be ensured.
 - xii. Only wagons with twin-pipe brake system shall be permitted to run at 75 kmph and above. Air brake system of wagons with twin-pipe shall be in working order for operation at 75 kmph and above.
 - xiii. **For Indian Railways, USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present stipulation corresponds to 8 GMT).**
 - xiv. **For Indian Railways:**

As per Clause 3.1.1.1.2.1 of RDSO's Final Speed Certificate (FSC) no. MW/SPD/BG/BCNM2, dated 18.08.2022, for operation in Loaded condition up to a speed of 60 kmph for minimum standard of 52kg (90UTS) rail, de-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 °C (Tm to Tm+5).

Further, as per clause 3.1.1.1.2.2 for operation in loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature loaded wagon will run at 60 kmph during the winter period of 1st November to 28th /29th of February.**

(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022-CEDO-SR-31-BCNM2-22.9- IR(75-100)-DFCCIL(100)

New Delhi, dated 24.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/13/2022-23-T.W. , dated 14.10.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr)Railway Board

(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



हरियाणा रेल अवसंरचना विकास निगम लिमिटेड
(हरियाणा सरकार और रेल मंत्रालय का संयुक्त उपक्रम)

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION Ltd.
(A JOINT VENTURE OF GOVERNMENT OF HARYANA AND MINISTRY OF RAILWAYS)

HORC/Railway Board/2022/1532

Date: 19.11.2022

Executive Director/CE (G),
Railway Board,
Rail Bhawan, New Delhi-110001.

Sub: Standard Dimensions for Tunnel & Through Girder Bridges to suit sections for double stack containers with high rise OHE for HORC project.

Ref: (i) Railway Boards letter 2022/CEDO/IRSOD/HRIDC/0 dated 18.11.2022. (e-3381211)
(ii) RDSO letter no. CT/SD/Rev/BG/MG dated 08.09.2022 addressed to ED/CE (G),RB.

1. RDSO vide the ref (ii) has proposed the MMD & fixed structure gauge for Tunnel & Through girder bridges for HORC project of HRIDC. The **dimensions proposed for MMD & FSG for HRIDC route is thus not infringing the parameters of ACS-1 of IRSOD** as can be seen from the salient parameters summarised below for a better appreciation.

Item	As per MMD & FSG proposed by RDSO	As per ACS-1 to IRSOD	Remarks
Height of Rolling Stock	7100 mm	6827 mm	Height of rolling stock considered for the proposed MMD is higher than the required ACS-1.
Minimum height of overhead structure above rail for Heavy overhead Structures	• 8430 mm (for conventional OHE) • 8050 mm (for ROCS)	7870mm -	Not included in IRSOD.

2. It may also be noted that **vide ACS-1** there is **reduction in the various specified dimensions**, as can be seen from summary below:

Item No. of Schedule-I Chapter V-B	Dimensions specified as per ACS-1	Previous dimensions specified	Remarks
Height of Stock	6827 mm	6809 mm	
Minimum Height from rail level to the underside of contact wire	7220 mm	7520 mm	(-) 300 mm as per ACS-1.
1. Minimum Height of Overhead structure above rail level for A. Light Overhead structures such as Foot Over Bridges	8250 mm	8430 mm	(-) 180 mm as per ACS-1.
Heavy Overhead Structures such as Road Over bridges and Flyovers	7870 mm	8050 mm	(-) 180 mm as per ACS-1.

3. Looking into the, it is requested that the MMD & fixed structure gauge for tunnel & through Girder Bridges for HORC project of HRIDC may be approved as proposed by RDSO.

[Signature]
19/11/2022
(Narinder D Chumber)
Director/P&P/HRIDC

Copy to: ED/Standard/Tracks-1/RDSO/Lucknow, for kind information please.



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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO-/SR/33/BCNHL/22.9/IR/(70 to 75-E)

New Delhi, dated 11.11.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Increase of speed of Broad Gauge Bogie covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 from 70 kmph to 75 kmph in Empty condition over Indian Railway, by Zonal Railways

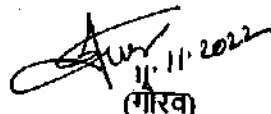
Ref: (i) RDSO's letter no. MW/SPD/BG/BCNHL, dated 27.04.2022
(ii) CCRS office letter no. Q.13011/42/2009-T.W., dated 09.11.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for increase of speed of Broad Gauge Bogie covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 from 70 kmph to 75 kmph in Empty condition over Indian Railway, by Zonal Railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

Condition No. 4 of Annexure :-

4. Testing Directorate has revised the Oscillation Trial Report after 11 years stating that there was an error in the calculations of % of static deflection of secondary spring. RDSO may be advised to submit both the calculations indicating error to the Commission before introduction of the subject rolling stock. It is also possible that method of calculation itself has been changed since the trial was conducted. If so, the date from which the new methodology has been implemented along with the technical justification of the new method may also be furnished RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.


(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Wagon), RDSO, Lucknow *Issued 11/11/22*
2. Executive Director (Standards) Track-I, RDSO, Lucknow *Issued 11/11/22*
3. EDME(Fr) Railway Board *Issued 11/11/22*



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन / Ph.: 0522-2233087, 2233168 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स / Fax-0522-2233086, 2233087
E-mail: chiefcom@rediffmail.com

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पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
18, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
18, Ashok Marg, Lucknow-226 001

संख्या-Q.13011/42/2009-त.वि

दिनांक-09.11.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[घातार्थ-EDCE(G)]

Sub: Increase of speed of Broad Gauge Bogie covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 from 70 kmph to 75 kmph In Empty condition over Indian Railway BG routes.

Ref.: (i) DG/RDSO's letter No. MW/SPD/BG/BCNHL, dated 27.04.2022
(ii) RDSO's First Revised Final Speed Certificate no. MW/SPD/BG/BCNHL, dated 19.04.2022
(iii) This office's letter of even no. dated 14.06.2022
(iv) RDSO's letter no. MW/SPD/BG/BCNHL, dated 22.09.2022

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for increase of speed of Broad Gauge Bogie covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 from 70 kmph to 75 kmph in Empty condition over Indian Railway BG routes on the basis of RDSO's First Revised Final Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was requested to furnish certain clarifications on the subject case. RDSO vide reference (iv) [copy enclosed] submitted its reply.

Case has been examined by this office in light of abovementioned documents/clarifications and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Broad Gauge Bogie Covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 at 75 [SEVENTY FIVE] kmph in both empty and loaded conditions over Indian Railway BG routes with conditions mentioned in Annexure.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui
Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.11.09
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(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (माल डिब्बा)
माल डिब्बा निदेशालय (एनेक्सी-1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Broad Gauge Bogie Covered wagon type 'BCNHL' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-06076-S-02 Alt.07 at 75 [SEVENTY FIVE] kmph in both empty and loaded conditions over Indian Railway BG routes

1. Observance of all conditions laid down in RDSO's First Revised Final Speed Certificate no. MW/SPD/BG/BCNHL, dated 19.04.2022. Remarks of the Railway against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
3. RDSO should carry out detailed study of poor brake power in BMBS fitted wagons and immediately take corrective measures in all existing & new wagons under intimation to this office
4. Testing Directorate has revised the Oscillation Trial Report after 11 years stating that there was an error in the calculations of % of static deflection of secondary spring. RDSO may be advised to submit both the calculations indicating error to the Commission before introduction of the subject rolling stock. It is also possible that method of calculation itself has been changed since the trial was conducted. If so, the date from which the new methodology has been implemented along with the technical justification of the new method may also be furnished.
5. In terms of Railway Board's letter no. 2020/CE-II/TS/22.9 dated 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of CC+8+2t axle load wagon at 75 kmph. List of routes identified for 22.9t axle load shall be submitted to the Commission before the start of actual operation of rolling stock.
6. The compliance of all the stipulations mentioned in Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020 shall be ensured by the Railways.
7. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks.
8. Railway should ensure installation of way side lubricators as per provision of IR P. Way manual in a time bound manner.
9. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
10. No overdue in track/rolling stock maintenance shall be permitted.
11. Separate maintenance regime to be legislated for higher axle load route on IR.
12. Detailed guidelines for operations of higher axle load train over IR shall be issued covering all issues related to Track, Bridges, Signal, OHE, Rolling Stock & Operating System etc.
13. Right powering of loaded trains running with CC+8+2 axle load wagons shall be ensured.
14. Only wagons with functional twin-pipe brake system shall be permitted to run at 75 kmph and above.
15. Railway should adopt following measures to improve the reliability of wagons during operation:
 - a. Elastomeric (EM) pads must be made MUST CHANGE items during Routine Overhaul (ROH).
 - b. Brake Blocks must be made MUST CHANGE items during ROH.
 - c. During intensive examination, minimum thickness of brake block should be maintained 25 mm instead of presently prescribed 20 mm to reduce the detachment cases of wagons on account of worn-out brake-head cases.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
DN: cn=2022.11.09
17:10:04 +05'30'



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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

✓ The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

Sub: Condonation of infringements w.r.t. IRSOD (BG) Revised, 2022 by the profile of maximum moving dimension diagram of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load: 21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.17 for operation on Indian Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
(ii) RDSO's letter no. MW/BOBRN, dated 24.03.2022 & 17.10.2022

With reference to RDSO letter No. MW/BOBRN, dated 24.03.2022 & 17.10.2022, sanction of Railway Board is hereby communicated for applicability of condonation for BOBR MK-II issued vide Board's letter No. 93/CEDO/SR/5 dated 30.12.93, for 'BOBRNALHSM1' wagon also.

02.11.2022
(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
2. Commissioner of Railway Safety, all Circles.
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Freight)/Railway Board, New Delhi.

15/11/22
09/11/22

(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



75
आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

Sub: Condonation of infringements w.r.t. IRSOD (BG) Revised, 2022 by the profile of maximum moving dimension diagram of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.17 for operation on Indian Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
(ii) RDSO's letter no. MW/BOBRN, dated 24.03.2022 & 17.10.2022

With reference to RDSO letter No. MW/BOBRN, dated 24.03.2022 & 17.10.2022, sanction of Railway Board is hereby communicated for applicability of condonation for BOBR MK-II issued vide Board's letter No. 93/CEDO/SR/5 dated 30.12.93, for 'BOBRNALHSM1' wagon also.

(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
2. Commissioner of Railway Safety, all Circles.
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Freight)/Railway Board, New Delhi.

09/11/22

02.11.2022
(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



75
आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-0 Alt.17 up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

- Ref: (i) Railway Board letter of even. no., dated 02.11.2022
(ii) CCRS office letter no. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
(iii) RDSO's letter no. MW/BOBRN, dated 24.03.2022 & 17.10.2022
(iv) RDSO's Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022

With reference to RDSO above application dated 24.03.2022 {ref.iii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-0 Alt.17 up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL with the following stipulations :

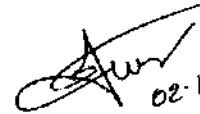
- Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022 for operation up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the

5540
09/11/22

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sanction of General Manager/MD-DFCCIL as per CE (G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

- ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- iii. Zonal Railways shall ensure that stipulation mentioned in Para 3.6.1.6 & 3.6.1.7 of the Provisional Speed Certificate (PSC) are followed in field.
- iv. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
- v. No overdue in track/rolling stock maintenance shall be permitted.


02.11.2022

(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/01/2022-23-T.W., dated 04.08.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDME(Fr) Railway Board

(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

(54)



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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-0 Alt.17 up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

- Ref: (i) Railway Board letter of even no., dated 02.11.2022
(ii) CCRS office letter no. Q.12011/01/2022-23-T.W., dated 04.08.2022 & 13.10.2022
(iii) RDSO's letter no. MW/BOBRN, dated 24.03.2022 & 17.10.2022
(iv) RDSO's Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022

With reference to RDSO above application dated 24.03.2022 {ref.iii}, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-0 Alt.17 up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL with the following stipulations :

- Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022 for operation up to a maximum speed of 65 kmph over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the

9/11/22

(55)

sanction of General Manager/MD-DFCCIL as per CE (G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

- ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- iii. Zonal Railways shall ensure that stipulation mentioned in Para 3.6.1.6 & 3.6.1.7 of the Provisional Speed Certificate (PSC) are followed in field.
- iv. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
- v. No overdue in track/rolling stock maintenance shall be permitted.

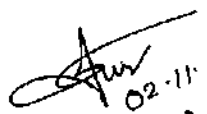
(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/23/BOBRNALHSM1/21.82t/IR/DFCCIL

Dated 02.11.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001, w.r.t. his endorsement No. Q.12011/01/2022-23-T.W., dated 04.08.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDME(Fr) Railway Board


02.11.2022
(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SD-RS-17-BLSS-ISO-DS-IR-DFCCIL

New Delhi, dated 20.10.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement to IRSOD (BG) Revised, 2022 by **maximum height and maximum side height** of 8'6" (2591mm), 8'6" & 9'6" (2591mm/2896mm) and 9'6" (2896mm) high containers in empty and loaded in **double stack configuration** (max. 6199mm, 6504mm and 6809mm high) on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS as per RDSO Drawing No. WD-22061-S-02, WD-22061-S-03 (Car-A) & WD-22062-S-02, WD-22062-S-03 (Car-B) over specified BG routes of **Indian Railways and routes of Western Dedicated Freight Corridors of DFCCIL**

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 11.08.2022

(ii) CCRS office letter no. Q.14011/05/2022-23-T.W. BLSS/ISO container/DS, dated 27.08.2022

With reference to RDSO above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t IRSOD (BG) Revised, 2022 by **maximum height and maximum side height** of 8'6" (2591mm), 8'6" & 9'6" (2591mm/2896mm) and 9'6" (2896mm) high containers in empty and loaded in double stack configuration (max. 6199mm, 6504mm and 6809mm high) on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS as per RDSO Drawing No. WD-22061-S-02, WD-22061-S-03 (Car-A) & WD-22062-S-02, WD-22062-S-03 (Car-B) over specified BG routes of Indian Railways and routes of Western Dedicated Freight Corridors of DFCCIL. As shown in detail enclosed with above mentioned application, detail of infringements w.r.t. Chapter-IV(A) for IRSOD-2022 are as under:

A. 2591mm(8'6") high containers in Double Stack configuration:-

- i. **Clause 30** - Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 1934 mm (i.e. 6199mm instead of 4265mm)
- ii. **Clause 31** - Max. height above rail level at side of unloaded vehicle by 2332 mm at the beginning of slope line to 2265 mm at a distance of 1219mm and 1015mm respectively from the center of the wagon on either sides of wagon

[Signature]
Oct 20th/22

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B. 2591mm/2896mm(8'6"/9'6") high containers in Double Stack with combination of 8'6" & 9'6" high container configuration:-

- i. **Clause 30** - Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 2239 mm (i.e. 6504mm instead of 4265mm)
- ii. **Clause 31** - Max. height above rail level at side of unloaded vehicle by 2637 mm at the beginning of slope line to 2570 mm at a distance of 1219mm and 1015mm respectively from the center of the wagon on either sides of wagon

C. 2896mm(9'6") high containers in Double Stack configuration:-

- i. **Clause 30** - Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 2544mm (i.e. 6809mm instead of 4265mm)
 - ii. **Clause 31** - Max. height above rail level at side of unloaded vehicle by 2942 mm at the beginning of slope line to 2875 mm at a distance of 1219mm and 1015mm respectively from the center of the wagon on either sides of wagon
2. Further, above sanction of condonation is subject to the following stipulations:

- i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of subject rolling stock in electrified territory.
- ii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in Para 1, 2 & 3 of Note mentioned in Annexure-I (for BLSS wagon with ISO containers in double stack) of RDSO's application no. CT/CONTR/BG/MG dated 11.08.2022 shall be adhered to before introducing operation of subject rolling stock.

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OCT 20/22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address :dceg@rb.railnet.gov.in

No. 2022-CEDO-SD-RS-17-BLSS-ISO-DS-IR-DFCCIL

New Delhi, dated 20.10.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No.Q.14011/05/2022-23-T.W.BLSS/ISO container/ DS, dated 27.08.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Fr.)/Railway Board, New Delhi

2
OCT 20/22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

21/10/22



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SD/IRSOD-2022/O/ACS_a

New Delhi, Dated 18.10.2022

Addressed to:
(As per list mentioned below)

Sub: Addendum & Corrigendum Slip (ACS) No. 01 to the Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2022

The Ministry of Railways (Railway Board) have decided that the *opening note and Para-1 & Para-2* of Chapter V-B, Schedule -I of Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2022 be amended as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 01.

Enclosure: ACS No. 01

अजीत कुमार झा
18.10.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड

[Phone: 030-44803: Rly: 011-23383379:MTNL]

e-mail address : edceg2022@gmail.com

List for Distribution:

59

1. General Managers, All Indian Railways & Production Units
2. Principal Chief Engineers and Chief Administrative Officers (Con.), All Indian Railways
3. Director General, RDSO, Manak Nagar, Lucknow
4. Director General, NAIR, Vadodara
5. Chief Commissioner of Railway Safety, Ashok Marg, Lucknow
6. Commissioner of Railway Safety, All Circles
7. Director, IRICEN, Rail Path, Pune - 411001 (Maharashtra)
8. Director, IRIEN, P.B. No. 233, Nasik Road - 422101 (Maharashtra)
9. Director, IRISSET, Taar Naka Road, Lalla Guda, Secunderabad
10. Director, IRIMEE, Jamalpur - 811214 (Bihar)
11. Director, IRITM, IRITM Campus, Manak Nagar, Lucknow

Copy to:

1. Concerned PSO for kind information of Chairman cum CEO, M/Infra, M/T&RS, M/O&BD, M/Finance, Railway Board
2. Adv./MR, EDPG/MR, OSD/MR, OSR(Co-ord)/MR
3. Chief Vigilance Officers, All Indian Railways.
4. DG(RHS), DG(RPF), AM(CE), AM(Works), AM(B), AM(Elec.), AM(RS), AM(ME), AM/Tele, AM/C&IS, AM/Sig., AM(Plg.), AM/L&A, PED(B&S), PED(Vigilance), PEDCE(P), PED(Infra), EDCE(G), EDTK(M&MC), EDCE(B&S), EDF(X)-I, EDF(X)-II, ED(Works), EDW(Plg.), ED/Project(Mon.), ED(L&A), ED(PSU), EDVE, ED(Safety), ED(Sig. Dev.), ED(Tele), EDRS(G), EDRE, EDEE(G), EDFE, EDE(N), ED(Accounts), ED/T&MPP, EDME(Chg.), EDME(Frt.), ED/Plg., JS(conf), JS(P), JS(G), JS(D), Vigilance-III, Vig(Conf) of Railway Board.

20/10/22

31/10/22
18.10.22

Addendum and Corrigendum Slip (ACS) No. 01
to

Schedule -I, Chapter V-B of Indian Railways Schedule of Dimensions (B.G.) Revised, 2022

Opening note of Chapter V-B – 25 kV A.C. Electric Traction with High Rise OHE shall be read as under:

Note: Provisions under this chapter are applicable only for electrification of routes where double/triple stack container having maximum height of 6809 mm/6827mm are plying.

Para 1 and Para 2 of Chapter VB – 25 kV A.C. Electric Traction with High Rise OHE shall be read as under:

1. Minimum height from rail level to the underside of contact wire in open: 7220mm

Note: On curves, the height shall be measured from the higher or super elevated rail.

2. Minimum height of Overhead structure above rail level for a distance of 1600mm on either side of the center of track shall be as under:

(A) Light Overhead Structures, such as Foot Over Bridges: 8250mm

(B) Heavy Overhead Structures, such as Road Over Bridges and Flyovers: 7870mm

(C) Heavy Overhead Structures, such as Road Over Bridges and Flyovers, If any turnout or crossover is located under the Heavy Overhead Structures or within 40m from its nearest face: 8250mm

Note:

(i) Necessary provision shall be made in overhead structure and overhead equipment to permit an extra allowance for raising of track in future to cater for modern track structure in the form of increased ballast cushion of 350 mm, larger sleeper depth of 230 mm and heavier rail sections of 200 mm including 10 mm thick rubber pad by using longer traction overhead equipment masts, if necessary.

(ii) In case of restricted height of existing overhead structures, minimum height of overhead structure (Road Over Bridges/Flyovers/Foot Over Bridges) for a distance of 1600mm on either side of the centre of track for provision of high rise OHE as per note (iii) below, to permit operation of triple stack container having maximum height as 6827mm shall be as under:

(a) Light Overhead Structures, such as Foot Over Bridges: 7586mm

(b) Heavy Overhead Structures, such as Road Over Bridges and Flyovers: 7486mm

(c) Heavy Overhead Structures, such as Road Over Bridges and Flyovers, if any turnout or crossover is located under that heavy overhead structure or within 40 m from its nearest face: 7586mm

For these minimum restricted heights, catenary wire shall be terminated outside overhead structure (Road Over Bridges & Flyovers / Foot Over Bridges).

31/10/22 g n c m s
18.10.22

(iii) In case of restricted height of existing overhead structures, bridges and tunnels as mentioned in (ii) above, the minimum height of underside of the contact wire from rail level can be reduced to 7184mm. In such cases, a special study shall be made, before 25 kV AC traction is introduced as explained below:

(a) Height of the rolling stock:	6827mm
(b) Short duration electrical clearance:	200mm
(c) Additional electrical clearance for oscillation of the contact wire (For OHE span length of 49.5m or below):	50mm
(d) Allowance for track upgradation/maintenance:	50mm
(e) Rise in rolling stock height under dynamic conditions:	57mm
(f) Minimum height of contact wire:	7184mm

37/1/5 37/1/5 18.10.22



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अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/Proj./KMRCL/NEW-SECTION/30/22

New Delhi, dated 14.10.2022

The General Manager,
Metro Railway,
Metro Rail Bhawan,
Kolkata - 700071

Sub: Compliance of CRS observation in connection with Opening of New Standard Gauge line from Phool Bagan (Excl.) to Sealdhah Metro Station (including) as a part of East -West Corridor of Metro Railway, Kolkata for public carriage of passengers Traffic

Ref : (i) Metro Railway letter No. MRTS/W-30/43/DMTC-KMRC/Pt.IV, dated 30.08.2022
(ii) Board's letter No. 70/WDO/OR1/1/V01.V dated 31.05.2018

1. Vide letter {ref i}, Metro Railway, has requested to give suitable order in reference to CRS letter No. 3601/1/2021-22/PBSA-SDAH/EAST-WEST/METRO/NFC/591 dated 22.07.2022, as the remarks/compliance of metro Railway has not been accepted by Commissioner of Railway Safety.
2. Issue has been examined and it is advised that Metro Railway may kindly take necessary action as per directive given in Board's letter No. 70/WDO/OR1/1/V01.V-dated 31.05.2018.

DA: as above

31/10/22
(अजीत कुमार झा) 14.10.22
कार्यपालक निदेशक सिविल इंजीनियरिंग (जी)/ रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow-226001,
2. The Commissioner of Railway Safety, N.F. Circle, 14, Strand Road, 12th floor, Kolkata-01

19/10/22



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 70/WDO/ORI/1/Vol. V

Date: 31.05.2018

General Manager,
All Indian Railways

The Chief Commissioner of Railway Safety,
Office Compound of DRM/NER,
Ashok Marg, Lucknow.

Sub: - Commission for Railway Safety

-Procedure to Deal with Difference of Opinion between Railway Administration and CRS for Opening of New Railway or Work or Condonation of Infringements to IRSOD for structures

1. Commissioner of Railway safety (CRS) is empowered for 'opening of a new railway or work' on the request of Zonal Railway. However, many a times, it has been noticed that in a case where there is difference of opinion between Zonal Railway and CRS, prolonged correspondence takes place between them extending even for years together in resolving the issue.
2. The prolonged correspondence in decision making results in avoidable delay in opening of new lines or works on Indian Railways. To expedite the process of decision making in such cases, following procedure proposed by Ministry of Railways has been agreed by Ministry of Civil Aviation:

"All cases of opening of a railway or a work or condonation of infringements to IRSOD for structures, where there is difference of opinion between zonal railway and CRS and issue is not getting resolved in a reasonable time, CRS at his own or on the request of Railway Administration (as defined in "The Railways Act, 1989") refer the case to Chief Commissioner of Railway Safety (CCRS) within 15 days of receipt of such request from Railway Administration, for resolving the issue. In case such reference on the request of Railway Administration is not made by CRS to CCRS, the Railway Administration can make suitable reference to CCRS directly with a copy of such reference to concerned CRS and Central Govt. (Railway Board).

CCRS shall communicate his opinion to CRS and Railway Administration concerned, which shall be taken as the opinion of the Commission for Railway Safety. The cases where CCRS does not agree with Railway Administration, the CCRS shall submit the report with his opinion to Central Govt., for decision of the Central Govt. as per Section 22(2) and 22(3) of "The Railways Act, 1989."

3. Further, as suggested by Ministry of Civil Aviation, in order to resolve various interface issues between Zonal Railway and CRS, General Manager shall hold a meeting with CRS bimonthly.
4. This is issued with the approval of CRB.

(प्रेम सागर गुप्ता)

कार्यकारी निदेशक/सिविल इंजी/रेलवे बोर्ड
[Rly No. 44803, MTNL 011-23383379]

Copy forwarded for kind information to:

- (i) Jt. Secy. (RA), Ministry of Civil Aviation, Rajiv Gandhi Bhawan, New Delhi 110003, in reference to Secretary, MoCA DO No. A.60015/101/2018-CRS, dated 24.05.2018.
- (ii) Director General/ RDSO, Manak Nagar, Lucknow
- (iii) Commissioner of Railway Safety, All Circles

कार्यकारी निदेशक/सिविल इंजी/रेलवे बोर्ड



64



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SR-30-BCPVN-100kmph-IR-DFC

New Delhi, Dated 14.10.2022

**The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.**

Sub: Introduction of Broad Gauge Bogie Parcel Van type 'BCPVN' [Maximum Axle Load:15.25t] to RDSO's Drawing No. WD-13037-S-02 Alt.5 at maximum speed up to 100 Kmph in both empty and loaded conditions over **Indian Railway**, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) RDSO's letter no. MW/SPD/BG/BCPVN dated 09.11.2021
(ii) CCRS office letter no. Q.12011/16/2021-22-T.W, dated 11.10.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Broad Gauge Bogie Parcel Van type 'BCPVN' [Maximum Axle Load:15.25t] to RDSO's Drawing No. WD-13037-S-02 Alt.5 at maximum speed up to 100 Kmph in both empty and loaded conditions over **Indian Railway**, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

- Transportation code of the wagon was stenciled as BCPVN1 on the body of the wagon. This may be corrected to BCPVN before introduction of the rolling stock.
- 11 digit wagon no. may be allotted to inspected wagon before turning it out from the workshop.
- As the locking arrangement is provided at a height and can't be reached by a person standing on the ground, movable hydraulic platform for locking/unlocking may be provided at the place of loading/unloading

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Handwritten signature
17.10.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address :dceg@rb.railnet.gov.in

No. 2022-CEDO-SR-30-BCPVN-100kmph-IR-DFC

New Delhi, Dated 14.10.2022

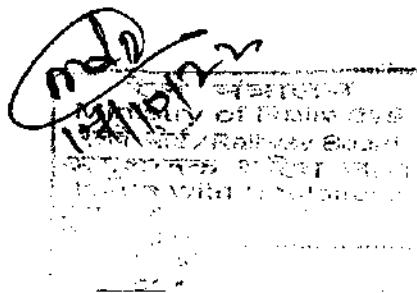
Copy forwarded for information to :

- Executive Director (Wagon), RDSO, Lucknow
- Executive Director (Standards) Track-I, RDSO, Lucknow
- EDME(Fr) Railway Board

Handwritten signature
17.10.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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N.E.Rly. 31-148, N.Rly. 23-290
फैक्स/Fax-0522-2333098, 2233067
E-mail: chiefcom@rediffmail.com

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पूर्वोत्तर रेलवे, न.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/18/2021-22-त.वि.

दिनांक-11.10.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of new type of rolling stock Broad Gauge Bogle Parcel Van type 'BCPVN' [Maximum Axle Load:15.25t] to RDSO's Drawing No. WD-13037-S-02 Alt.5 at maximum speed up to 100 Km/h in both empty and loaded conditions on IR B.G. routes and Eastern and Western Dedicated Freight Corridors of DFCCIL

- संदर्भ: (i) DG/RDSO's letter No. MW/SPD/BG/BCPVN dated 09.11.2021
(ii) RDSO's Final Speed Certificate (PSC) no. MW/SPD/BG/BCPVN dated 01.11.2021 and its Amendment no. 1 dated 16.03.2022
(iii) This office's letter of even no. dated 03.12.2021
(iv) RDSO's letter no. MW/SPD/BG/BCPVN, Dated 17.03.2022
(v) This office letter of even no. dated 12.05.2022

Vide reference (i); RDSO has approached this office seeking Railway Board's sanction for Introduction of subject rolling stock upto a maximum speed of 100 km/h in both empty and loaded conditions on IR B.G. routes and Eastern and Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. RDSO vide reference (iv) [copy enclosed] submitted clarification on the subject case. Vide this office letter under ref (v), RDSO was advised to make the stock available for statutory inspection by CCRS.

Statutory inspection of the subject rolling stock was carried out by CCRS on 02.10.2022 at premises of M/s Braithwaite & Co. Ltd, Kolkata. Inspection report of the rolling stock is enclosed as **Annexure-1**

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of Broad Gauge Bogle Parcel Van type 'BCPVN' [Maximum Axle Load:15.25t] to RDSO's Drawing No. WD-13037-S-02 Alt.5 at maximum speed up to **100 [ONE HUNDRED] Km/h in both empty and loaded conditions** on IR B.G. routes and Eastern and Western Dedicated Freight Corridors of DFCCIL with conditions mentioned in **Annexure-2**.

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of Broad Gauge Bogle Parcel Van type BCPVN' are enclosed as **Annexure-3**. The compliance of the same should also be submitted to the Commission

Further, 'Measures for future improvement of Broad Gauge Bogle Parcel Van type BCPVN' are attached as **Annexure-4**.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui
Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.10.11
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(अहमद नदीम सिद्दीकी)

उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (माल डिब्बा)

माल डिब्बा निदेशालय (एनेक्सी-1).

अनुसंधान, अभिकल्प एवं मानक संगठन,

मानकनगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Broad Gauge Bogie Parcel Van type 'BCPVN' [Maximum Axle Load: 15.25t] to RDSO's Drawing No. WD-13037-S-02 Alt.5 at maximum speed up to 100 Kmph in both empty and loaded conditions on IR B.G. routes and Eastern and Western Dedicated Freight Corridors of DFCCIL

1. Observance of all conditions laid down in RDSO's Final Speed Certificate (PSC) no. MW/SPD/BG/BCPVN dated 01.11.2021 and its Amendment no. 1 dated 16.03.2022 dated. Remarks of the Railway/DFCCIL against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
3. Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, Para no. 7.8.9 shall be followed.
4. Only wagons with functional twin-pipe brake system shall be permitted to run at 75 kmph and above.
5. No overdue in track/rolling stock maintenance shall be permitted.
6. Railway should adopt following measures to improve the reliability of wagons during operation:
 - a. Elastomeric (EM) pads must be made MUST CHANGE items during Routine Overhaul (ROH).
 - b. Brake Blocks must be made MUST CHANGE items during ROH.
 - c. During intensive examination, minimum thickness of brake block should be maintained 25 mm instead of presently prescribed 20 mm to reduce the detachment cases of wagons on account of worn-out brake-head cases.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.10.11
13:27:40 +05'30'

Measures to be taken before introduction of Broad Gauge Bogie Parcel Van type 'BCPVN'

Statutory inspection of the rolling stock by the CCRS was carried out on 02.10.2022 at premises of M/s Braithwaite & Co. Ltd., Kolkata. Para 4 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

- (i) Transportation code of the wagon was stenciled as BCPVN1 on the body of the wagon. This may be corrected to BCPVN before introduction of the rolling stock.
- (ii) 11 digit wagon no. may be allotted to inspected wagon before turning it out from the workshop.
- (iii) As the locking arrangement is provided at a height and can't be reached by a person standing on the ground, movable hydraulic platform for locking/unlocking may be provided at the place of loading/unloading.

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Nadeem
Siddiqui

Digitally signed by Ahmad
Nadeem Siddiqui
Date: 2022.10.11 13:27:53
+05'30'

Measures for future Improvement of Broad Gauge Bogie Parcel Van type 'BCPVN'

Statutory inspection of the rolling stock by the CCRS was carried out on 02.10.2022 at premises of M/s Braithwaite & Co. Ltd., Kolkata. Para 5 of CCRS Inspection Report which suggests the measures for future improvement of the coach is reproduced below for taking necessary action for their implementation:

- (i) Light pipe arrangement similar to NMGHS may be provided in the rolling stock for better illumination. Some additional louvers may also be provided.
- (ii) Ramp of adequate length flush with the wagon floor may be provided to allow movement of fork lifter inside it for faster handling of goods.
- (iii) As the length of the loop lines in DFCCIL are more than that of IR, rakes having more units than what is specified for IR may be operated over DFCCIL for increasing throughput.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.10.31
13:20:06 +05'30'



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/24(1)/Vande Bharat-160kmph

New Delhi, Dated 10.10.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

Sub:- Future improvement of Vande Bharat Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code: TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001 & TS/MC2-9-0-001, TS/TC-9-0-001 and TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) and Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively], up to a maximum speed of 160 kmph over Indian Railway, by Zonal Railways

Ref: (i) Railway Board letter No. 2022/CEDO/SR/24/Vande Bharat-160kmph dated 22.09.2022
(ii) CCRS office letter no. Q.12011/16/2022-23-T.W, dated 08.09.2022

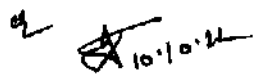
With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code: TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001 & TS/MC2-9-0-001, TS/TC-9-0-001 and TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) and Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively], up to a maximum speed of 160 kmph over Indian Railway, by Zonal Railways vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following future improvement:

- i. Minimum setting of Volume of PA system is considerably higher. It should be reduced by at least 50%.
- ii. It is observed that Black-box type voice and video storage device is provided which is fire and water resistant. This is a good initiative and will go a long way to analyse cause of any untoward incidence. It was informed that 12hrs of videos from cameras, 10 min of conversation recording between driver and guard and 10 min of video recording of cab is stored in this storage device. It is further informed that cab voice is not yet recorded in this storage device and only the conversation done through PA system is recorded. Efforts should be made to increase the duration of storage for cab view and LP-Guard conversation from 10 min to 1 hr at least. Moreover, conversations between LP-ALP are not yet recorded, which should also be recorded and stored.
- iii. When door is closed, the top most step is accessible from inside. Width of this gap is large enough to entrap someone causing injury to passenger if not alert. This gap should be removed by suitably modifying the steps.
- iv. RDSO and ICF may deliberate on the issue of provision of 'opening the door' from outside as it may create unsafe situation by comparing the feature with international specifications/standards and obtaining feedback from all stakeholders. The decision may be communicated before implementation for appreciation by the Commission.

[Signature]
10.10.22

- v. Peak Current taken by the trainset during trial run was more than 450amps and  cruising mode at 160 kmph, current drawn by trainset is around 175amps. These values will be higher when train is fully loaded. Under such circumstances, proper study should be made for running of number of trains along with trainset from one feeding post in absolute block section as well as automatic signal territory. Such restriction on number of trains should be included in working timetable on routes where these trainset are planned to run.
- vi. There were 3 signal failures occurred during the trial run which are detailed below-
- Signal failure at Ballabgarh station due to track circuit failure and train passed at calling on signal no. C-143 and C-155 on UP line.
 - Gate signal of LC gate number 540 was double yellow due to flickering of the point on UP line.
 - Panel failure at Rundhi station while returning from Agra to New Delhi.
- Reliability of signals at high speed operation is paramount. Therefore following action should be taken:
- Dual detection should be provided on main line for better reliability and safety.
 - LC gates on HDN routes should be eliminated on priority.
 - As per Para 7.8.9 IRSEM 2021, important minimum signalling features shall be ensured during train running.
- vii. Depth of wash-basin in washroom is very shallow and prone to splashing of water from tap. It should be made as per specified standard.
- viii. In case of emergency, passenger evacuation is through coach doors. As it is inconvenient to get down at ground level using steps and in case of emergency may lead to falling of passenger, Railways should study and make efforts to provide evacuation slides (similar to emergency exits in aircrafts) at doors which can be inflated in case of emergency to provide safe and faster passage for passenger evacuation.
- ix. The fixing of windows from outside maybe improved to make them flush with the shell of the coach for smooth feel and ease of cleaning.
- x. The interiors and furnishing items provided in the offered rake are a definite and visible improvement over the previous rake. However, there is still scope for improvement especially in the cab and driver desk area. Railway may engage an expert in the field of interior designing to further improve the interiors, overall look of the rake from outside, colour scheme, driver's cab to make the future rakes aesthetically pleasing and at par with the international standards.

RDSO is requested to examine above and take necessary action for future improvement of Vande Bharat Train set. The compliance of the same should also be submitted to CCRS.


(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No. 011-23047598]
e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/24(1)/Vande Bharat-160kmph

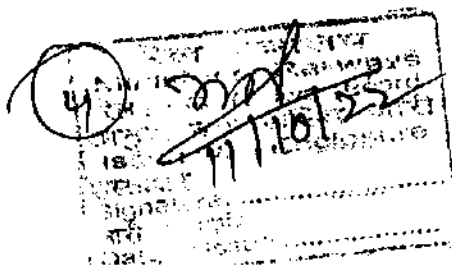
New Delhi, Dated 10.10.2022

Copy forwarded for information to :

- ☒ The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/23/2019-20-त.वि., दिनांक - 16.12.2019
- ☒ Executive Director (Standards) Motive Power, RDSO, Lucknow
- ☒ Executive Director (Standards) Carriage, RDSO, Lucknow
- ☒ Executive Director Mechanical Coaching, Railway Board

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(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

please refer
7/10/22

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SD/RS/11/Non-ISO-3660mm

New Delhi, dated 07.10.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement for movement in loading patterns of (i) Non-ISO containers 3660 mm wide and 2591mm high in single stack (ii) Non-ISO containers 3660 mm wide and 1930mm high in single stack and (iii) Non-ISO containers 3660 mm wide and 1930mm high at bottom and 2600mm wide and 1930mm high container on top in double stack on BG low platform bogie container flat wagon type BLC/BLCM/BLCS/BLL/BLLM(Car A & B) for operation on specified routes over Indian Railways, by Zonal Railways and over DFCCIL system by DFCs

- Ref: (i) Railway Board's letter of even no., dated 12.09.2022
(ii) RDSO's letter no. RDSO-TI0LKO(OHE)/103/2020, dated 16.09.2022
(iii) RDSO's letter no. CT/CONTR/BG/MG, dated 01.12.2021
(iv) CCRS office letter no. Q.14011/09/2021-22-T.W., dated 16.07.2022

May kindly refer to ED/RE letter dated 12.09.2022{ref.i} wherein RDSO was asked to furnish comments for stipulations mentioned in there, now RDSO vide their letter dated 16.09.2022{ref. ii} submitted reply and states that "the condition mentioned in CCRS letter dated 16.07.2022(ref.iv) & Railway Board letter dated 12.09.2022 (ref.i) is agreed to" and further advice to add some additional stipulations (i.e 04 nos.) to be incorporated in sanction letter.

While processing the above cited case after revised proposal received from RDSO vide their letter dated 16.09.2022{ref. ii} under signature of ED(TI) regarding in response to ED(RE); EDME(Fr.) has observed as under:

"While sending a condonation proposal to Railway Board, RDSO normally takes views of all concerned dtes, which are duly incorporated and final proposal is also signed (internally) by the concerned dte heads. In this case it is not clear whether TI dte of RSDO was taken onboard or not. Further, in case any query is made by any dte of Board to RDSO, then its reply, if involves including additional conditions, should again be submitted with views and consent of other dtes which had originally contributed in framing the proposal. Hence, in this case it is proposed to refer the stipulations given by TI dte to ED/TD-1/RDSO for endorsement".

In view of above, RDSO is advised to :

- i. Examine the issues involved and submit revised proposal routed through Executive Director (Standards) Track-I as per extent of rules/procedure at the earliest, if required.
- ii. Mention clearly in the covering letter of future proposals, name of dtes with whose consent the respective proposal is submitted.

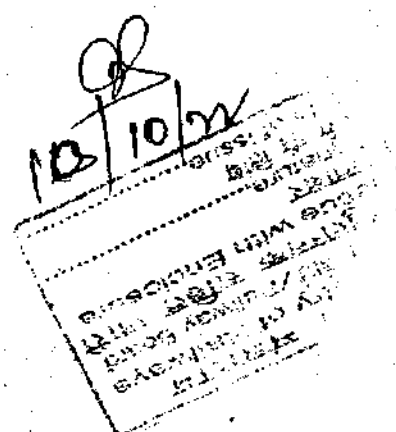
o/c

07.10.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Track-I, RDSO, Lucknow
2. Executive Director (IT), RDSO, Lucknow
3. EDME/Freight Railway Board
4. ED/GS(Elect.), Railway Board





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SD/RS/07

New Delhi, dated 03.10.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringements w.r.t. IRSOD (BG)-2004 by Maximum height at side (3841mm to 3934 mm) of non-ISO high cube variant 'V2' Containers (2896mm high and 2600 wide) for on existing Road Railer wagon type 'BAFRDR' as per RDSO Drawing No. WD-21110-S-01) for operation on routes of Indian Railways

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 24.12.2021

(ii) CCRS office letter no. Q.14011/17/2021-22-TW, dated 11.05.2022

1. With reference to RDSO above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringements w.r.t. IRSOD (BG)-2004 by Maximum side height (3841mm to 3934 mm) of non-ISO high cube variant 'V2' Containers (2896mm high and 2600 wide) for on existing Road Railer wagon type 'BAFRDR' as per RDSO Drawing No. WD-21110-S-01), detail of infringements w.r.t. Chapter-IV (A) IRSOD-2004 is as under:

Clause 30 – Maximum height above rail level at sides of unloaded vehicles, the magnitude of infringement varies from 374 mm at the beginning of the slope line to 281mm at the end of the slope line at the distance of 1300mm and 1015mm respectively from the centre of the wagon (i.e.3841mm to 3934 mm instead of 3735mm).

2. Further, above sanction of condonation is subject to the following stipulations:
 - i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of non-ISO high cube variant 'V2' Containers (2896mm high and 2600 wide) on existing Road Railer wagon type 'BAFRDR' in electrified territory.

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03/10/2022

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- ii. All the necessary conditions related to infringements and various clearances to be ensured and precautions to be taken during operation by the Railways shall form part of the RDSO speed certificate, whenever issued.
- iii. Speed shall be restricted to 40 kmph in the location where lateral clearance from either side of center of track to fixed structure is 1600mm at a height of 4115mm above rail level

02/10/2022

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निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SD/RS/07

New Delhi, dated 03.10.2022

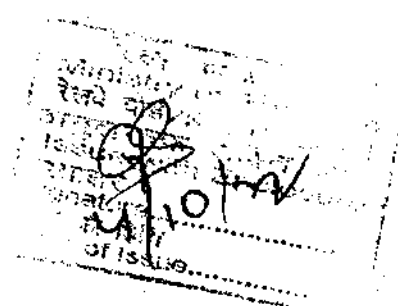
Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-226001 w.r.t. his endorsement No. Q.14011/17/2021-22-TW, dated 11.05.2022
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Fr.)/Railway Board, New Delhi

02/10/2022

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

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Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/27/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 03.10.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) RDSO's letter no. TM/HM/11/18/BRM, dated 21.03.2022
(ii) CCRS office letter No. Q.12011/11/2021-22-T.W, dated 30.09.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. The machine shall carry out all the operations as listed in Para 3.13 of RDSO specification no. TM/HM/BRM/369 Rev. 01 of 2016 in one working pass under normal condition.
2. The length of brooms for fastenings was such that they were depositing the ballast on pandrol clip & sleepers (outside rail). It should be suitably adjusted so that ballast deposited over sleepers & pandrol clip is moved away due to its operation.
3. It shall be ensured that staff working with BRM should wear protective gear such as Helmets, goggles, masks, Reflective jackets, shoes etc. to avoid any injury due to flying of ballast & other small particles.
4. 25 kVA „Danger Sign Board“ made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff.
5. At least two fire extinguishers of adequate capacity should be provided inside the driver's cab.

रेलवे बोर्ड / Railway Board
आपूर्तिकर्ता/सप्लायर
Issue with Enclosure
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue

[Signature]

9/ 03/10/22

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6. Track machine operators must be properly trained in the operation of BRM before issue of "Competency Certificate" and record of training imparted to them be kept

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

2 03/10/22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/27/BRM, Model-USP 2000 SWS-65kmph

New Delhi, Dated 03.10.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&Mc) Railway Board

2 03/10/22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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E-mail: chiefcom@rediffmail.com

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पूर्वोत्तर रेलवे, म.रे.म. कार्यालय परिसर
18, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
18, Ashok Marg, Lucknow-226 001

संख्या—Q.12011/11/2021-22-त.वि.

दिनांक—30.09.2022

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL.

- संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/18/BRM, dated 11.03.2022
(ii) RDSO's Provisional Speed Certificate no. TM/HM/11/18/BRM, dated 01.07.2021 and Amendment no. 1 & Amendment no. 2 dated 22.12.2021 & 22.04.2022 respectively
(iii) This office's letter of even no. dated 08.04.2022
(iv) RDSO's letter no. TM/HM/11/18/BRM, dated 25.04.2022
(v) This office letter of even no. dated. 26.05.2022

Vide ref (i), DG/RDSO has approached this office for recommending sanction of Central Government for introduction of subject rolling stock, up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's PSC mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) [copy enclosed]. Vide reference (v) [copy enclosed], RDSO was advised to make the machine available at LKO for statutory inspection by CCRS.

Statutory inspection of the subject rolling stock was carried out by CCRS on 27/09/2022 at Gomti Nagar Railway Station, N. E. Railway, Lucknow. Inspection report of the rolling stock is enclosed as **Annexure-1**.

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of Ballast Regulating Machine, Model-USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of **65 [SIXTY FIVE] kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL** with conditions mentioned in **Annexure-2**.

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of Ballast Regulating Machine, Model-USP 2000 SWS are enclosed as **Annexure-3**. The compliance of the same should also be submitted to the Commission

Further, 'Measures for future improvement of Ballast Regulating Machine, Model-USP 2000 SWS' are attached as **Annexure-4**.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad Nadeem Siddiqui
Digitally signed by Ahmad Nadeem Siddiqui
Date: 2022.09.30 10:27:12 +05'30'

(अहमद नदीम सिद्दीकी)

उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (ट्रेक मशीन)

ट्रेक मशीन निदेशालय

अनुसंधान, अभिकल्प एवं मानक संगठन,

मानकनगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Ballast Regulating Machine, Model- USP 2000 SWS supplied by M/s Plasser & Theurer to manufacturer General Arrangement Drawing No. BR00.147-3 [Max. Axle Load: 21t], up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/18/BRM, dated 01.07.2021 and Amendment no. 1 & Amendment no. 2 dated 22.12.2021 & 22.04.2022 for operation up to a maximum speed of 65 kmph in train formation. **Remarks of the Railway/DFCCIL against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. It shall be ensured that staff working with BRM should wear protective gear such as Helmets, goggles, masks, Reflective jackets, shoes etc. to avoid any injury due to flying of ballast & other small particles.
4. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
5. Any part which is meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kV AC OHE no parts of the vehicle should extend beyond the MMD envelope. Minimum electrical clearance as per SoD shall also be ensured
6. Ballast Regulating Machine shall be maintained as per instructions laid down by RDSO.

Ahmad
Nadeem
Siddiqui

Digitally signed
by Ahmad
Nadeem, O=Railways, O=DFCCIL
DN: cn=Ahmad, o=DFCCIL, ou=Railways, email=ahmad.nadeem@dfccil.co.in

Measures to be taken before introduction of Ballast Regulating Machine, Model-USP 2000 SWS

Statutory inspection of the rolling stock by the CCRS was carried out on 29/07/2022 at Gomti Nagar Railway Station, N. E. Railway, Lucknow. Para 2 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

1. The machine shall carry out all the operations as listed in Para 3.13 of RDSO specification no. TM/HM/BRM/369 Rev. 01 of 2016 in one working pass under normal condition.
2. The length of brooms for fastenings was such that they were depositing the ballast on pandrol clip & sleepers (outside rail). It should be suitably adjusted so that ballast deposited over sleepers & pandrol clip is moved away due to its operation.
3. It shall be ensured that staff working with BRM should wear protective gear such as Helmets, goggles, masks, Reflective jackets, shoes etc. to avoid any injury due to flying of ballast & other small particles.
4. 25 KVA 'Danger Sign Board' made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff.
5. At least two fire extinguishers of adequate capacity should be provided inside the driver's cab.
6. Track machine operators must be properly trained in the operation of BRM before issue of "Competency Certificate" and record of training imparted to them be kept.

Ahmad
Nadeem
Siddiqui

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by Ahmad
Nadeem Siddiqui
DN: cn=Ahmad Nadeem Siddiqui,
o=CCRS, ou=CCRS, email=ahmad.nadeem.siddiqui@ccrs.gov.in, c=IN

Measures for future improvement of Ballast Regulating Machine, Model-USP 2000 SWS

Statutory inspection of the rolling stock by the CCRS was carried out on 29/07/2022 at Gomti Nagar Railway Station, N. E. Railway, Lucknow. Para 3 of CCRS Inspection Report which suggests the measures for future improvement of the machine is reproduced below for taking necessary action for their implementation:

1. 4 No CCTV cameras have been provided to assist the operator carry out the ballast regulating operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.
2. Machine may be equipped with centralised Computer based Monitoring & Control System to monitor the health of various systems such as engine, hydraulics, pneumatic & electrics. The data so captured should be displayed in driver's cab. Arrangement should also be made for downloading & analysing the data.
3. At present the stock is proposed to be operated at a speed of 65 Km/h based on the Provisional Speed Certificate issued by RDSO. Oscillation trial of the stock should be planned & conducted at the earliest and Final Speed Certificate issued to utilize its full speed potential.
4. Hand operated hydraulic pump has been provided for retraction of machine parts like side plough, centre plough, broom etc. belt in case of failure of main engine. Feasibility of providing electrical pump may be explored in future design of the machine.
5. Hydraulic oil filling is done by opening of top cover of hydraulic system which requires the staff to stand on the machine. This may be unsafe especially under OHE of restricted height. Provisions should, therefore, be made for oil topping without opening the top cover.
6. Split AC has been fitted in the cab which was found to be of inadequate capacity due to loss of cooling from the small windows provide for communication with staff standing on the ground. AC having adequate capacity to provide effective cooling even during extreme weather conditions must be fitted to ensure efficient working by the machine operator.
7. Stickers having descriptions should be provided on all push buttons, switches, indicators, gauges etc. provided in the driver's cab.
8. All the three systems i.e. regulation of shoulder ballast by outer flap and regulation/cleaning of ballast from the top of the sleeper and pandrol clips should work simultaneously. If such working is not resorted to then block hour will be wasted without any tangible output and in all likelihood duplicate progress will be repeated.

Ahmad
Nadeem
Siddiqui

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by Ahmad
Nadeem Siddiqui
Date: 2022.09.30
16:27:55 +05'30'



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आजादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SD/RS/10/'RORO'

New Delhi, dated 30.09.2022

The Director General
Research Designs & Standards Organisatio
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO' (Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by Zonal Railways and over DFCCIL system by DFCCIL.

Ref: (i) ED(Standards)/Wagon, RDSO letter no. MW/SPD/BG/RORO, dated 23.09.2022
(ii) Railway Board's letter of even no., dated 26.08.2022
(iii) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(iv) CCRS office letter no. Q.14011/02/2022-23-TW, dated 16.07.2022

While processing the above ED(Standards)/Wagon, RDSO letter no. MW/SPD/BG/RORO, dated 23.09.2022 {ref.(i)} above, it was observed that "same has not been routed through Executive Director (Standards) Track-I".

In view of above, RDSO is requested again to examine the issues involved and submit revised proposal w.r.t. IRSOD-2022 routed through Executive Director (Standards) Track-I as per extent of rules/procedure at the earliest, if required.

DA: as above

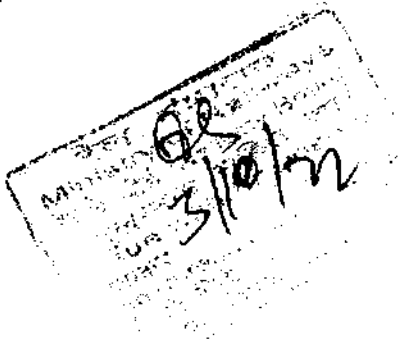
अजीत कुमार झा
(अजीत कुमार झा) 30.9.22

0/C कार्यपालक निदेशक सिविल इंजीनियरिंग (जी)/ रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address : edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. ED/Safety Railway Board
4. EDME(Freight) Railway Board

Pl. Issue for
30/9/22





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SD/RS/10/'RORO'

New Delhi, dated 26.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO' (Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(ii) CCRS office letter no. Q.14011/02/2022-23-TW, dated 16.07.2022

While processing the above cited case for the sanction of the Railway Board for condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO' (Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*, ED/Safety, has passed following remarks, reproduced as under:

"Proposal from RDSO as well as recommendations of CCRS are against IRSOD 2004. However, in above proposal, partial approval is sought against IRSOD 2022 and remaining portions is being sent back to RDSO for examination against IRSOD 2022.

It is suggested that either complete proposal against IRSOD 2022 be examined at Railway Board or complete proposal be sent back to RDSO for examination. Partial approval will not help, in any way, to expedite the of approval of proposed RORO".

RDSO is requested to examine the issues involved and submit revised proposal w.r.t. IRSOD-2022 routed through CCRS as per extent of rules/procedure at the earliest, if required.

कार्यपालक निदेशक सिविल इंजीनियरिंग (जी)/ रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address : edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. ED/Safety Railway Board
4. EDME(Freight) Railway Board

29/8/22

File No. 2022/CEDO/SD/RS/10/'RORO' (Computer No. 3400842)
1243711/2022/O/o DCE(G)

Note # 8

Proposal from RDSO as well as recommendations of CCRS are against IRSOD 2004. However, in above proposal, partial approval is sought against IRSOD 2022 and remaining portions is being sent back to RDSO for examination against IRSOD.

It is suggested that either complete proposal against IRSOD 2022 be examined at Railway Board or complete proposal be sent back to RDSO for examination. Partial approval will not help, in any way, to expedite the of approval of proposed RORO.

24/08/2022 04:43 PM
TEJ PRAKASH AGRAWAL
ED/SAFETY

Note # 9

24/08/2022 05:05 PM

Ajit Kumar Jha
EDCE(G)

Note # 10

In view of the issue of revised IRSOD-2022, a reference may be made to RDSO to intimate the approval of the specific condonations still required from Board.

25/08/2022 03:46 PM

VINAY KUMAR AGARWAL
EXECUTIVE DIRECTOR ME (FREIGHT)

Note # 11

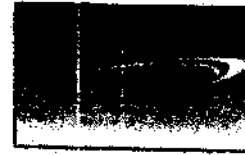
25/08/2022 03:56 PM

Ajit Kumar Jha
EDCE(G)



भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226 011
EPBX (0522) 2451200
Fax (0522) 2458500

Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011
DID (0522) 2450115
DID (0522) 2485310



No. MW/SPD/BG/RORO

Dated: 23-09-2022

Executive Director Civil Engineering (G),
Railway Board, Rail Bhawan,
New Delhi-110 001

Sub: Condonation of infringement for movement of Broad Gauge Bogie Flat wagon type 'RORO' (A-Car & B-Car) in loaded condition with commodity like Road vehicles (empty/loaded) over routes of Indian Railways.

Ref: 1 Railway Bd. letter no 2022/CEDO/SD/RS/10 'RORO' dt. 26.08.22
2 CCRS office letter no Q.14011/02/2022-23-TW dated 16.07.2022
3 Track Dte. note no. MW/CONTR/BG/MG dated: 29.06.2022
4 Track Dte. note no. CT/Cont./BG/MG dated: 12.04.2022

RDSO has developed a new design of Broad Gauge Low Platform Bogie Flat wagon type 'RORO' (A-Car & B-Car) to RDSO drawing No WD-19066-S-02 (Car-A) & WD-19067-S-02 (Car-B) for transportation of multiple commodities like Road vehicles, Military vehicles and equipment's, containers in single stack, steel products and other similar commodities.

2. The design was infringing certain clauses of IRSOD-2004 & SSOD of DFC in empty and loaded condition, accordingly vide reference (4) above a proposal was submitted to CCRS office for their examination and forwarding to Railway Board for obtaining condonation of the infringements for operation of 'RORO' (A-Car & B-Car) wagon with/without any commodity (Truck) in empty and loaded conditions over routes of Indian Railways and Eastern & Western Dedicated Freight Corridor of DFCCIL.
3. Vide reference (2) above, CCRS has examined and forwarded the proposal to Railway Board for obtaining the condonation. Meanwhile, an ACS-6 to SSOD of DFC and Revision of IRSOD-2004 (i.e. IRSOD-2022) has been issued. Accordingly, Railway Board vide reference (1) above, has advised RDSO to examine the issue and resubmit the revised proposal w.r.t. IRSOD-2022 through CCRS.
4. The issue has been examined and it is observed that due to issue of ACS-6 to SSOD of DFC and IRSOD-2022, the Wagon design is now not infringing to any clause of SSOD of DFC in empty & loaded condition and IRSOD-2022 in empty condition. The wagon is now only infringing to one clause of IRSOD-2022 i.e. clause no.-31 of chapter-IV (A) of IRSOD-2022 (earlier clause no-30 of IRSOD 2004).

5. Considering that the proposal of condonation has already been examined and forwarded by CCRS and there is no new infringement observed due to issue of ACS-6 to SSOD of DFC and IRSOD-2022. As such, only one condonation to clause no.-31 of chapter-IV (A) of IRSOD-2022 (earlier clause no-30 of IRSOD 2004) is required.

In view of above, Railway Board is requested to kindly accord condonation to clause no-31 of chapter-IV (A) of IRSOD-2022 (detailed at S.No-4 of Annexure-I of the proposal) for operation in loaded condition over Indian Railways.

Further, it is informed that, a few proposals have been forwarded to Board before issue of revised IRSOD-2022. It is requested that similar action may please be taken for them as there is no new infringement because of issue of IRSOD-2022. Generally these proposals have shown infringements to Clause no 2(ii), 11 & 14, which are now incorporated in IRSOD-2022.

Manish Thapliyal
(Dr. Manish Thapliyal)
Executive Director Sids./Wagon

Copy to:

1. Secretary to DG – For kind information
2. Executive Director/Sids./Track – 1
3. EDME (Fr), Railway Board, New Delhi

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1215198/2022 SECTION



File No. 2022/CEDO/SD/RS/10/'RORO' (Computer No. 3400847)

नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

फोन/फैक्स: 0522-2233087, 2233105 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233086, 2233087
E-mail: chiefcom@rediffmail.com

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.14011/02/2022-23-त.वि.

दिनांक-16.07.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[आयुक्त:EDCE(G)]

विषय: Condonation of infringement for movement of Broad Gauge Bogie Flat wagon type 'RORO' (Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railways B.G routes & routes of Eastern and Western Dedicated Freight Corridors of DFCCIL

- संदर्भ: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(ii) This office's letter of even no. dated 27.04.2022
(iii) RDSO's letter no. MW/CONTR/BG/MG, dated 29.06.2022

Vide reference above, Executive Director (Track-I)/RDSO has approached this office seeking condonation of infringements to IR BG Schedule of Dimension (Revd. 2004) and DFCCIL-SOD by the subject rolling stock which infringes **Clause 2(ii)** [Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5 mm from wheel gauge face], **Clause 11** [Minimum height above rail level for floor of fully loaded goods vehicle], **Clause 14** [Minimum height above rail level for centers of buffers & CBC couplers when fully loaded] and **Clause 30** [Maximum height above rail level at sides of unloaded vehicle] of **Chapter IV(A) of IRSOD, BG Rev. 2004** and **Clause 4.3.3 of EDFC-SOD & Clause 11.3.3 of WDFC-SOD** [Minimum height above rail level for centers of buffers & CBC couplers when fully loaded].

Vide reference (ii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. RDSO, vide reference (iii) [copy enclosed] submitted its reply.

Case has been examined by this office in light of abovementioned documents/clarifications and is found to be in order. Accordingly, the same is recommended for sanction of the Central Government with the following conditions:

- Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation in electrified territory.
- Any road vehicle outside the profile proposed for condonation shall be treated as Over Dimensional Consignment (ODC) and operated accordingly.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.07.16
15:52:57 +05'30'

संलग्नक: यथोक्त

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

प्रतिलिपि:

कार्यकारी निदेशक मानक/रेलपथ-1, प्रशासनिक भवन, अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-226011



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SD-RS-15

-BLSS-GATISHAKTI-CUBE-SS-2730(H)x2600(W)x2000(L)-IR-DFCCIL

New Delhi, dated 29.09.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement w.r.t. IRSOD (BG) Revised, 2022 by **maximum side height** of Single Stack non-ISO-Gati Shakti Cube Containers (2730 Height, 2600 Width & 2000 Length) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02B & WD-22062-S-02B (Car A & B) for operation over Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 08.08.2022

(ii) CCRS office letter no. Q.14011/05/2022-23-T.W. BLSS/Gati Shakti (Cube) container/SS, dated 27.08.2022

With reference to RDSO above applications {ref.(i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter IV(A), Schedule-I, IRSOD (BG) Revised, 2022 by **maximum side height** of Single Stack non-ISO-Gati Shakti Cube Containers (2730 Height, 2600 Width & 2000 Length) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02B & WD-22062-S-02B (Car A & B), as shown in detail enclosed with above mentioned application, detail of infringements are as under:

Clause 31- Max. height above rail level at side of unloaded vehicle by 48mm at the beginning of slope line to zero mm at distance of 1300 mm and 1152 mm respectively from the centre of wagon (i.e. 3841mm to 3889mm instead of 3735mm)

Further, above sanction of condonation is subject to the following stipulations:

- Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of Non-ISO Gati Shakti (Cube) containers in single stack on BLSS (Car- A & B) wagons in electrified territory.

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30/09/22

2 *A*
29.09.22

- ii. All the necessary conditions related to infringements and various clearances to be ensured and precautions to be taken during operation of subject rolling stock by the Railways, shall form part of the RDSO speed certificate, whenever issued.

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29.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022-CEDO-SD-RS-15

New Delhi, dated 29.09.2022

-BLSS-GATISHAKTI-CUBE-SS-2730(H)x2600(W)x2000(L)-IR-DFCCHL

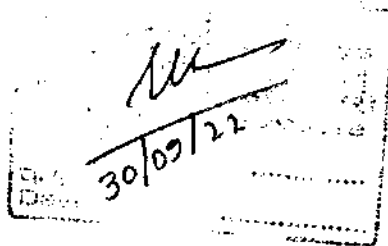
Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.14011/05/2022-23-T.W. BLSS/Gati Shakti (Cube) container/SS, dated 27.08.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Fr.)/Railway Board, New Delhi

29.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022-CEDO-SD-RS-16-BLSS-9'6"-SS-IR-DFCCIL

New Delhi, dated 29 .09.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement w.r.t IRSOD (BG) Revised, 2022 by maximum side height of 9'6" Single Stack ISO Containers (2896mm Height, 2438 Width) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02 & 03 (Car A) & WD-22062-S-02 & 03 (Car B) for operation over Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 08.08.2022

(ii) CCRS office letter no. Q.14011/05/2022-23-T.W. BLSS/9'6"(2896mm high) container/SS, dated 27.08.22

With reference to RDSO above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t Chapter IV(A), Schedule-I, IRSOD (BG) Revised, 2022 by maximum side height (3893 mm) of 9'6" Single Stack ISO Containers (2896mm Height, 2438 Width) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02 & 03 (Car A) & WD-22062-S-02 & 03 (Car B) for operation over Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL, as shown in detail enclosed with above mentioned application, detail of infringements are as under:

Clause 31- Max. height above rail level at side of unloaded vehicle by 26mm at the beginning of slope line to zero mm at distance of 1219 mm and 1141 mm respectively from the centre of wagon (i.e. 3867mm to 3893mm instead of 3735mm)

Further, above sanction of condonation is subject to the following stipulations:

"Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of 9'6"(2896mm) high ISO containers in single stack on BLSS (Car- A & B) wagons in electrified territory".

29.09.22
(गौरव)

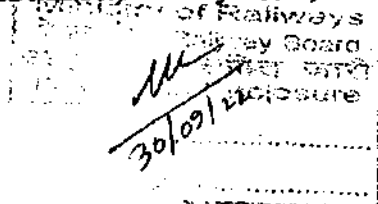
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

No. 2022-CEDO-SD-RS-16-BLSS-9'6"-SS-IR-DFCCIL

New Delhi, dated 29 .09.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-226001 w.r.t. his endorsement No. Q.14011/05/2022-23-T.W. BLSS/9'6" (2896mm high) container/SS, dated 27.08.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(F), Railway Board, New Delhi



29.09.22
(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



No. 2022-CEDO-SD-RS-14-BLSS-12'-SS-2480x3658-IR-DFCCIL

New Delhi, dated 28.09.2022

**The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.**

Sub: Condonation of infringement w.r.t. IRSOD (BG) Revised, 2022 by **maximum height (4655mm)** and **maximum side height (4655mm)** of 12' high Container (3658mm high) in Single Stack configuration in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02A (Car A) & WD-22062-S-02A (Car B) for operation over specified, DSDC routes of Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 08.08.2022

(ii) CCRS office letter no. Q.14011/05/2022-23-T.W. BLSS/12' (3658mm) high container/SS, dated 27.08.2022

With reference to RDSO above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I, IRSOD (BG) Revised, 2022 by **maximum height (4655mm)** and **maximum side height (4655mm)** of 12' high Container (3658mm high) in Single Stack configuration in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS (Car A & B), as per RDSO Drawing No. WD-22061-S-02A (Car A) & WD-22062-S-02A (Car B) for operation over specified, DSDC routes of Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL, as shown in detail enclosed with above mentioned application. Detail of infringements are as under:

- i. **Clause 30-** Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 390 mm (i.e. 4655 mm instead of 4265 mm)
- ii. **Clause 31-** Max. height above rail level at side of unloaded vehicle by 788 mm (i.e. 4655mm instead of 3735mm)

28.09.22

Further, above sanction of condonation is subject to the following stipulations:

- Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of single stack 12' (3658mm) high containers on BLSS (Car- A & B) wagons in electrified territory.
- Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in Para 1, 2 & 3 of Note mentioned in Annexure-I (for BLSS wagon with 12' high containers) of RDSO's application no. CT/CONTR/BG/MG dated 08.08.2022 shall be adhered to before introducing operation of subject rolling stock.
- All the necessary conditions related to infringements and various clearances to be ensured and precautions to be taken during operation of subject rolling stock by the Railways, shall form part of the RDSO speed certificate, whenever issued.

2 28.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address : dceg@rb.railnet.gov.in

No. 2022-CEDO-SD-RS-14-BLSS-12'-SS-2480x3658-IR-DFCCIL

New Delhi, dated 28.09.2022

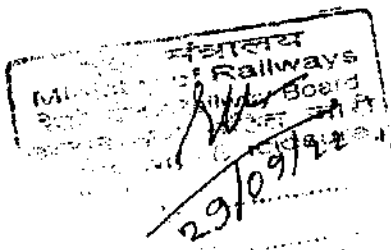
Copy forwarded for information to:

- The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.14011/05/2022-23-T.W. BLSS/12' (3658mm) high container/SS, dated 27.08.2022
- Commissioner of Railway Safety, All Circles
- ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
- EDME(Fr.)/Railway Board, New Delhi

2 28.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No.2022-CEDO-SD-RS-13-BLSS-DSDC-2600x1930-IR-DFCCIL

New Delhi, dated 28.09.2022

The Director General
Research Designs & Standards Organisation,
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement w.r.t. IRSOD (BG) Revised, 2022 by **Maximum height (4877mm) and maximum side height (4877mm)** of non-ISO Double Stack Dwarf Containers (DSDC) (1930mm high and 2600mm wide) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS as per RDSO Drawing No. WD-22061-S-02C & WD-22062-S-02C (Car A & B) for operation over DSDC routes of Indian Railways and routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 11.08.2022

(ii) CCRS office letter no. Q.14011/05/2022-23-T.W.BLSS/Dwarf container/DS, dated 27.08.2022

With reference to RDSO above applications {ref.(i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I, IRSOD (BG) Revised, 2022 by **Maximum height (4877mm) and maximum side height (4877mm)**, for movement of non-ISO Double Stack Dwarf Containers (DSDC) (1930mm high and 2600mm wide) in empty and loaded on Broad gauge Low Platform Bogie Spine Car container wagon type BLSS to RDSO Drawing No. WD-22061-S-02C & WD-22062-S-02C (Car A & B), as shown in detail enclosed with above mentioned application, detail of infringements are as under:

- i. **Clause 30-** Max. height above rail level for a width of 1015 mm on either side of the center of unloaded vehicle by 612 mm (i.e. 4877 mm instead of 4265 mm)
- ii. **Clause 31-** Max. height above rail level at side of unloaded vehicle by 1036 mm(i.e. 4877mm instead of 3735mm)

Further, above sanction of condonation is subject to the following stipulations:

- i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of 1930mm high dwarf containers in double stack in empty and loaded condition on BLSS (Car A & B) wagons in electrified territory.

dy 28.09.22

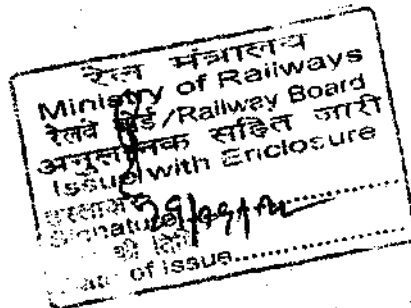
- 93
- ii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in Para 1,2 & 3 of Note mentioned in Annexure-I (for BLSS wagon with 1930mm high dwarf containers in double stack) of RDSO application no. CT/CONTR/BG/MG, dated 11.08.2022 shall be adhered to before introducing operation of subject rolling stock.
- iii. All the necessary conditions related to infringements and various clearances to be ensured and precautions to be taken during operation by the Railways, shall form part of the RDSO speed certificate, whenever issued.

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(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No.2022-CEDO-SD-RS-13-BLSS-DSDC-2600x1930-IR-DFCCIL New Delhi, dated 28.09.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.14011/05/2022-23-T.W.BLSS/Dwarf container /DS, dated 27.08.2022
2. Commissioner of Railway Safety, All Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDME(Fr.)/Railway Board, New Delhi





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/18/MEMU-IGBT-8/12/16Car

New Delhi, dated 28.09.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

The General Manager,
All Indian Railways

Sub: Introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drawing No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020 over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/09/2018-19-T.W, dated 16.07.2022
(ii) RDSO's letter no. MC/MEMU/3-Phase, dated 11.05.2022
(iii) RDSO's Final Speed Certificate (FSC) no. MC/MEMU/3-Phase, dated 10.05.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020 over Indian Railway, by Zonal Railways, with the following stipulations:

- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MC/MEMU/3-Phase, dated 10.05.2022 for operation up to a maximum speed of 110 kmph, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy

28.09.22

Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure

- ii. As per Para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976- Rule 4.98 1(a).
- iii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- iv. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
- v. All electrical equipment shall be maintained in good condition and necessary safety precautions shall be taken by Railways.
- vi. Tri-lingual Danger boards should be stencilled wherever required in all passenger areas which is a requirement as per Electricity Act.
- vii. Provision of manual display system also should be made available in the MEMU DMC.
- viii. Possibility needs to be explore for Passenger Emergency Communication System for passengers to talk to motorman.

or 28.09.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

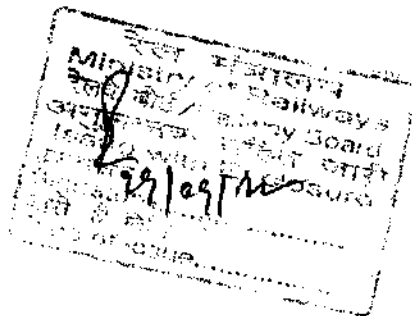
No. 2022/CEDO/SR/18/MEMU-IGBT-8/12/16Car

New Delhi, dated 28.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/09/2018-19-T.W, dated 16.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. EDME(Coaching), Railway Board

or 28.09.22



(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/26/12-CAR-AC-EMU

New Delhi, Dated 26.09.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

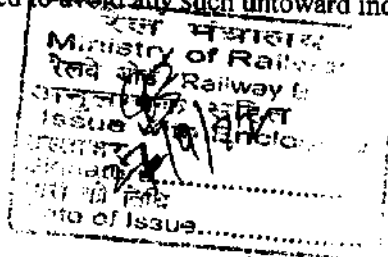
Sub: Introduction of 12 car rake formation BG Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, upto a maximum operational speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522 over Indian Railway, by Zonal Railways

Ref: (i) RDSO's letter no. DG/RDSO's letter No. DG/RDSO's letter No. MC/EMU/3-Phase/US/ICF, dated 11.07.2022

(ii) CCRS office letter No. Q.12011/25/2019-20-T.W, dated 23.09.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of 12 car rake formation BG Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, upto a maximum operational speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522 over Indian Railway, by Zonal Railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. There was leakage of rainwater in both the driver's cab from many places like roof, back wall etc. This should be immediately attended as this may become hazardous in case of water leakage into electrical panels.
2. During trial, cab door of one of the cabs could not be properly locked which may be attended.
3. During trial, door obstruction test was conducted and it was observed that obstruction of 15 was not detected at the bottom of the door. System may be calibrated for detection of 15mm obstruction at the top, middle & bottom of the door before commercial operation of the stock.
4. There is sufficient gap between Fall plate covers/chequered plates provided between two coaches which may cause entrapment of passenger's foot resulting in injury. This gap may be optimised to avoid any such untoward incident.



26.09.22

5. Aerosol-based automatic fire detection and suppression system may be provided in all electrical panels
6. Railway Board vide letter no. 2017/CEDO/SR/26 dt. 19.12.2017 communicated sanction of the Central Government for operation of AC EMU having propulsion system of M/s BHEL make wherein RDSO was advised to provide Automatic Smoke Detection & Fire Alarm System in all coaches in two years but the same has not been fitted in any of these rakes till date. Automatic Smoke/Fire Detection with Fire Alarm System as per guidelines provided by RDSO vide letter no. AC/ACF/fire detection/AC dated 09.03.2022 may be retrofitted in the inspected rake as well as in future rakes.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

o/c

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/26/12-CAR-AC-EMU

New Delhi, Dated 26.09.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. Executive Director (Standards) Carriage, RDSO, Lucknow
4. EDME(Coaching) Railway Board

o/c

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

फोन/Ph.: 0622-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0622-2233089, 2233087
E-mail: chiefcsm@rediffmail.com

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/25/2019-20-त.वि.

दिनांक-23.09.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[छबिनाथ:EDCE(G)]

विषय: Introduction of 12 car rake formation BG Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF, upto a maximum operational speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522 for use by any Railway

- संदर्भ: (i) DG/RDSO's letter No. MC/EMU/3-Phase/US/ICF, dated 11.07.2022
(ii) RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no. 1 dated 31.08.2022
(iii) This office's letter no. Q.14011/09/2021-22-T.W. dated 26.07.2022 & 24.08.2022
(iv) RDSO's letter no. MC/EMU/3-Phase/US/ICF, dated 12.09.2022

Vide reference (i), DG/RDSO has approached this office for recommending sanction of Central Government for introduction of 12 car rake formation BG Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF for operation up to a maximum speed of 110 kmph over Indian Railways for use by any Railway on the basis of RDSO's FSC mentioned at reference (ii). Vide reference (iii) [copy enclosed], RDSO was requested to furnish certain clarifications on the subject case. RDSO vide reference (iv) [copy enclosed] submitted its reply.

Layout Drawing No., Unique Transportation Code and Tare & Gross weight of proposed coaches of AC EMU are as under:

SN	Type of coach	Layout Drawing No.	Transportation code	Tare Weight	Gross Weight
1	Driving Motor Coach (DMC)	EMU/US/DMC/AC-9-0-01	EMU/DMC/IGBT/US/AC	55.73t	78.11t
2	Motor Coach (MC)	EMU/US/MC/AC-9-0-01	EMU/MC/IGBT/US/AC	54.15t	79.17t
3	Trailer Coach (TC)	EMU/US/TC/AC-9-0-01	EMU/TC/IGBT/US/AC	51.38t	76.4t
4	Trailer Coach (TC1)	EMU/US/TC1/AC-9-0-01	EMU/TC1/IGBT/US/AC	44.43t	69.45t
5	Non-Driving Motor Coach (NDMC)	EMU/US/NDMC/AC-9-0-01	EMU/NDMC/IGBT/US/AC	54.62t	79.64t

Statutory inspection of the subject rolling stock was carried out by CCRS on 22.09.2022 at Safdarjung Railway Station (DSJ)/Northern Railway, New Delhi followed by speed trial of the rake in DSJ-AST & back upto a maximum speed of 120 Kmph. Inspection report of the rolling stock is enclosed as Annexure-1.

Based on the examination of documents/clarifications submitted by RDSO, inspection and subsequent Speed trial of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for introduction of 12 car rake formation BG Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system and modified secondary suspension arrangement manufactured by ICF for operation up to a maximum speed of 110 [ONE HUNDRED TEN] kmph over Indian Railways with conditions mentioned in Annexure-2.

(99)

'Measures to be taken for improvement of Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system' extracted from CCRS Inspection Report is enclosed as **Annexure-3**. The compliance of the same should be submitted to the Commission before the introduction of the subject rolling stock.

Further, 'Measures for further improvement of Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system' are also attached as **Annexure-4**.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.09.23
18:09:11 +05'30'

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (सवारी डिब्बा)

सवारी डिब्बा निदेशालय (एनेक्सी-1),

अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-228011

(अहमद नदीम सिद्दीकी)

उप रेल संस्था आयुक्त (यांत्रिक)

Conditions to be ensured by the Railway for operation of Air-Conditioned EMU coaches fitted with underslung 3-phase IGBT based propulsion system for operation up to a maximum speed of 110 kmph over Indian Railways

1. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MC/EMU/3-Phase/US/ICF, dated 23.06.2022 and its Amendment no.-1 dated 31.08.2022. Remarks of the Railways against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 Kmph should be strictly complied.
4. As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running.
5. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
6. Railway shall comply all the stipulations mentioned in the EIG(Western Railway) letter no. 250/3/1/8(Underslung EMU) dt. 07.07.2022 for 12 car formation AC EMU rake.
7. It shall be ensured that driver cab is locked from inside during run to prevent the entry of any unauthorized person.
8. Earthing in the coach body & all the panels shall always be properly maintained.
9. Height of station platform from rail level shall not exceed 900mm.
10. Emergency egress device provided in the coach shall remain unlocked for use by the passengers.
11. Withdrawal of AC EMU rake from service if more than one door on one side becomes defective.
12. Suitable setting of temperature inside coaches to ensure comfortable conditions to passengers, considering ambient condition and frequent opening & closing of doors.
13. Availability of at least one technician in AC EMU train for a period of first 15 days of its introduction. The staff shall also educate passengers for opening of automatic doors during emergency.
14. Ensuring necessary resources i.e. trained operation and maintenance staff and adequate number of spare parts/ consumables for running & operation of AC EMU train.

Ahmad
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Siddiqui

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Suggestions for improvement of 12 car formation Air-Conditioned EMU

Statutory inspection of the rolling stock by the CCRS was carried out on 22.09.2022 at Safdarjung (DSJ) Station, New Delhi. Para 2 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

1. There was leakage of rainwater in both the driver's cab from many places like roof, back wall etc. This should be immediately attended as this may become hazardous in case of water leakage into electrical panels.
2. During trial, cab door of one of the cabs could not be properly locked which may be attended.
3. During trial, door obstruction test was conducted and it was observed that obstruction of 15 was not detected at the bottom of the door. System may be calibrated for detection of 15mm obstruction at the top, middle & bottom of the door before commercial operation of the stock.
4. There is sufficient gap between Fall plate covers/chequered plates provided between two coaches which may cause entrapment of passenger's foot resulting in injury. This gap may be optimised to avoid any such untoward incident.
5. Aerosol-based automatic fire detection and suppression system may be provided in all electrical panels
6. Railway Board vide letter no. 2017/CEDO/SR/26 dt. 19.12.2017 communicated sanction of the Central Government for operation of AC EMU having propulsion system of M/s BHEL make wherein RDSO was advised to provide Automatic Smoke Detection & Fire Alarm System in all coaches in two years but the same has not been fitted in any of these rakes till date. Automatic Smoke/Fire Detection with Fire Alarm System as per guidelines provided by RDSO vide letter no. AC/ACF/fire detection/AC dated 09.03.2022 may be retrofitted in the inspected rake as well as in future rakes.

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Measures for further improvement of 12 car formation Air-Conditioned EMU

Statutory inspection of the rolling stock by the CCRS was carried out on 22.09.2022 at Safdarjung (DSJ) Station, New Delhi. Para 3 of CCRS Inspection Report which suggests the measures for future improvement of the Trainset is reproduced below for taking necessary action for their implementation:

1. Vigilance Control Device (VCD) has not been provided in the driver's cab. It may be provided in the future rakes and retrofitted in the existing ones to enhance safety in case of any untoward incident
2. Voice logger may be provided for Emergency Talk Back Unit and for communication between driver and guard with provision of voice recording for at least one hour duration
3. Emergency ladders provided for detrainment of passengers in case of emergency are almost one foot inside the floor making them unsuitable for disembarking from the train especially by elderly persons & children. A suitable mechanism for enabling the passengers to detrain safely in case of emergency like derailment, fire incident etc may be explored and fitted in existing as well as future rakes
4. Entry from driver's cab to passenger area in DMC may be provided
5. In future rakes, detection of 10mm obstruction by the doors should be provided
6. As the rake is provided with 50% powering, RDSO may plan for Oscillation Trials at higher speed of 130/140 Kmph to realise its full speed potential
7. Air Condition in the driver's cab is provided on the floor making it prone to choking of filters. Roof mounted cab AC or bleeding of air from existing RMPU should be provided
8. Suitable arrangement should be made for making announcements through PA system regarding opening/closing of automatic doors, next station, procedure for detrainment in case of emergency etc
9. The rake is fully vestibule providing for through movement from one end of the train to the other giving it an **aesthetically pleasing & passenger friendly look. All EMU & MEMU rakes manufactured in future should also be fully vestibule similar to the proposed rake.**
10. The interiors and furnishing items provided in the offered rake are a definite and visible improvement over the previous rakes. However, there is still scope for improvement especially in the cab and driver desk area. Railway may engage an expert in the field of interior designing to further improve the interiors, overall look of the rake from outside, colour scheme, driver's cab to make the future rakes aesthetically pleasing and crew friendly.

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भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
(रेलवे बोर्ड) (Railway Board)

2022/CEDO/MISC./EDCE(G)

New Delhi, dated 26.9.2022

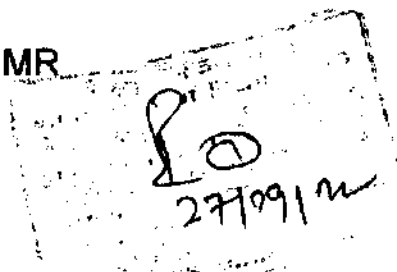
The Director General(Works)
Research Design& Standards Organisation.
Manak Nagar, Lucknow.

Sub:- Innovation Recommendations for betterment of Indian Railways.

Please refer to letter received from Hon'ble MR through EDCE(G).(copyenclosed).Please send your comment to the undersigned at the earliest.

o/c
(Kishanchand Sharma)
Assistant Design Engineer(Civil)
Room No.G-44,
Mob. - 9310812158
26/9/22

DA:-Latter address to Hon'ble MR



Email

(104) 153-CP5
Darshana Jardosh

E-Office 1260506

MoSR(J) 2-2902022

Date 16-09-2022

Regarding Revision or Innovation...

From : spgambhir14@gmail.com

Mon, Sep 12, 2022 03:26 AM

Subject : Regarding Revision or Innovation...

To : Ashwini Vaishnaw <officeofmr@gov.in>,
Darshana Jardosh <mos-
railways@gov.in>

cc : ChairmanRailwayBoard RailwayBoard
<crb@rb.railnet.gov.in>,
SecretaryRlyBoard RailwayBoard
<secyrb@rb.railnet.gov.in>

Suggestions/Remarks
on Drawing is me
CEDD only please

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19.9.22
30/9/22

SO/CC-2
10/5/22

R/Sir or Mam,

As per mentioned subject above I've enclosed herewith some points, for betterment of Indian Railways infrastructure work & structures point of view. PFA...

Revision or Innovation Recommendations List Of Points For Staircase Drg. No. RDSO/B-10401/5 :-

1. Provide deck plate of min.5 MM thickness below staircase waist slab, as a shuttering purpose. As well as provide same plate along both sides of staircase into width of 350 or 400 MM as per site conditions.
2. Instead of ISMB 400*140 use ISMB 400*180 MM section.
3. In Drg. mentioned cover plates of 250*16*3000 (or in required length), sir ; please-let me know - What is the role of this as a structural aspect ?. As per my view view have to save this steel & use ISMB 400*180 MM Thick beam. In this we are counterbalance weight of 16 MM thick coverplates in to ISMB section. Because unit weight of ISMB 400*180 is 66.30 KG/M & that of ISMB 400*140 is 61.5 KG/M.
4. Do improvement in the construction of steps pattern. If we use 2 ISA 75*75*10 MM Thick angles in 'T' shape, it will play both steps shuttering & major aspect is top angle holds Tread burnt Granite in it & durability of granite FFL will automatically increase.
5. In notes mentioned to use ISA 65*65*08 MM Thick Anti Slip Angles; the purpose of provision of this is very good & clear, but Granite & Angle - Mild

Steel are not cohesive one, that's why lot of practical problems arrised during execution. As well as if anyhow executed it on site, but they don't give us durability & many pedestrians cum passengers fall on face as legs are entwined. So, instead of this please consider best one method as per above Pt. No.04.

6. Add one note in Drg. as Height of column exceeds 4.5 M then provide additional bracing of 2ISMC 150 @150 to avoid effect of buckling of Column. (Ref. View At X-X).
7. It is very better for Execution Engineer, If you will show spacing of column batten plates.
8. In Drg. shown provision of ISMC 125 - Stringer beam bracing below RHP 96*48*4 MM Thick posts bottom only. But, due to this absence of bracings in centre of landing portion; Sagging may be happen. That's why in addition of shown bracings in landing please add 2 extra bracings. As a durable & strengthen aspects.
9. In Drg. please add pattern of provision of 'Stainless Steel (SS)' railings. As per human hand staircase ascents & descents view with considering all age groups criterion, Provide bottom SS handrail circular pipe on 0.9 M & Top pipe on 1.1 M height for comfot point of view.
10. If possible modify design of ISMC 75 & 16 MM Thick square bars in some new innovative & modern deign approach. As a Public usage & commercial aspect point of view.
11. Use crimped ridge instead of an semicircular one (Ref. Elevation Of Staircase) drg. Because such types of ridges are outdated now from market.
12. Use longitudinally single sided sloped pattern of Roof sheet ; instead of A-frame truss (In low & moderate precipitation areas) & for North India as well as some South India parts Drg. mentioned design is suits.
13. In Drg. C/C distances between two adjacent columns shown, but this exact design don't match on site. So, please mention feasible limit for C/C distance. On site distance may be increase/decrease based on condition of site & sometimes OHE poles also VC creates obstruction.
14. Also add Colour combination, Type of Roof Sheet to be used & Windties provision and it's specification in Drg.
15. Add one Stool below junction point of FOB's girders & staircase ISMB beam, for strengthen & fixing purpose. (Dimensions of stool depends or

varying as per site condition)

Etc. ✓

I hope Sir/Mam you will be consider these points & do n/a please.

Thanking You.

Yours sincerely,

Mr. S.P. Gambhir

(Practicing Civil Engineer)

E-mail Id : spgambhir14@gmail.com



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/24/Vande Bharat-160kmph

New Delhi, Dated 22.09.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager
All Indian Railways

Sub: Introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code : TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001/TS/MC2-9-0-001 & TS/TC-9-0-001/TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) & Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively], up to a maximum speed of 160 kmph over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/16/2022-23-T.W, dated 08.09.2022
(ii) RDSO's letter no.. TS/SC/Operation, dated 02.09.2022
(iii) RDSO's Final Speed Certificate No. TS/SC/Operation, dated 02.09.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code : TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001 & TS/MC2-9-0-001, TS/TC-9-0-001 and TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) and Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively], up to a maximum speed of 160 kmph over Indian Railway, by Zonal Railways, with the following stipulations :

A. For operation of Vande Bharat Trainset upto 110 kmph-

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. TS/SC/Operation, dated 02.09.2022 for operation up to a maximum speed of 160 kmph, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway

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Board Policy Circular No. 6, dated 31.10.2018 with all correction slips, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

- ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- iii. As the leading coach of Vande Bharat trainset are much lighter than the locomotive, hitting of any obstruction or even cattle run over may lead to serious accident at higher speeds. Therefore,
 - a. For speed more than 110 kmph, all the level crossing shall be replaced by suitable grade separation (ROB, RUB etc.) in a time bound manner.
 - b. Railway shall identify regular trespassing locations and to avoid trespassing at these locations, suitable mechanism such as deployment of RPF personnel, regular patrolling, providing 2x2 mtr subway (for passing farmers along with cattle) etc. shall be put in place.
- iv. As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running.
- v. Where Automatic Signalling is not provided, means for verifying complete arrival of train by provision of Block Proving by Axle Counter (BPAC) is necessary on high density routes and for stations provided with central panel interlocking.
- vi. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.
- vii. All type of brake systems including regenerative brakes of all the coaches shall be maintained in good working order during operation.
- viii. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018 with all correction slips, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
- ix. It shall be ensured that driver cab is locked from inside during run to prevent the entry of any unauthorized person.
- x. Regular announcements shall be made through PA system informing all persons other than passengers to disembark from the train before its departure.
- xi. Earthing in the coach body & all the panels shall always be properly maintained.

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- xii. Railway shall deploy qualified and dedicated staff for the maintenance of Vande Bharat Trainset.

B. In addition of stipulations in A above, following stipulation shall be applicable for operation of Vande Bharat Trainset beyond 110kmph and upto 130 kmph:

- i. All the provisions contained in the Railway Board's letter no. 2014/CE-II/TSC/I Pt.-1 dated 08.09.2016 for speed beyond 110 Kmph should be strictly complied.
- ii. For speed beyond 110kmph upto 130 kmph, Multi Aspect Colour Light Signalling (MACLS) with two Distant Signals or Automatic Signalling shall be provided. If two Distant Signals are provided, the Distant (outer most) signal shall be located at a Distance of not less than 2Km in rear of the home signal. The inner Distant Signal (existing Distant Signals) can be retained at its present distance in rear of the existing home signal. This shall also be applicable to the IBS and the interlocked level crossing gates located in the block sections.

C. In addition of stipulations A & B above, following stipulation shall be applicable for operation of Vande Bharat Trainset beyond 130 Kmph and upto 160 kmph:

- i. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 Kmph trains. Suitable guidelines shall be issued by the Railway in this regard.
- ii. Rail grinding at regular interval shall be done on the entire route for better riding behaviour and to avoid rail fracture/weld failures. Regular greasing of all the curves in the section shall be ensured.
- iii. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthen first before permitting higher speed.
- iv. Electrical operation of Clamp Lock type point machines and means for locking both switches, means for lock detection and independent switch detection by the respective signals shall be ensured. The interlocking between signal and points shall be by electrical or electronic means (PI/RR/EI).
- v. Provision of Automatic Train Protection System & Train radio communication system shall be ensured on the route for operation beyond 140 Kmph.
- vi. Track geometry shall be monitored once in a month by OMS, once in two months by Track Recording Car and once in Four months by Oscillograph car. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.

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- vii. Suitable fencing should be provided all along the track. Locations, which are prone to trespassing even after providing fencing, suitable RUB of restricted height (2m x 2m) should be constructed for crossings of pedestrians as well as cattle.
- viii. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, Dated 09.06.2004 and RDSO's Report no. CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS Dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 Km/h:
- Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
 - Boundary wall fencing for safety and security of the rake and the facilities.
 - Automatic washing plant at entry point.
 - Wheel profile measurement and re-profiling system.
 - In-situ wheel changing facility.
 - Automated and instrumented maintenance system in lieu of existing system based on visual inspection.
 - A separate bay with capacity for lifting and change of complete bogie platform for attention to roof mounted AC equipment.

अजीत कुमार झा
22.9.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803: Rly: 011-23383379: MTNL]
e-mail address : edceg2022@gmail.com

No. 2022/CEDO/SR/24/Vande Bharat-160kmph

New Delhi, Dated 22.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/16/2022-23, Dated - 08.09.2022
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Carriage, RDSO, Lucknow
4. Executive Director Mechanical Coaching, Railway Board

अजीत कुमार झा
22.9.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2018/CEDQ/SR/PC-6/0

New Delhi, Dated 20.09.2022

General Managers
All Zonal Railways

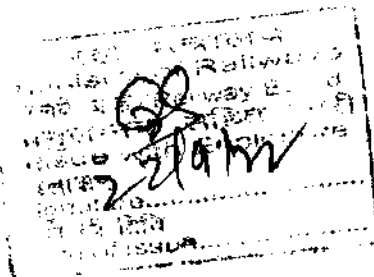
Chief Commissioner of Railway Safety
DRM Office Campus, Lucknow.

Sub: Addendum and Corrigendum Slip (ACS) No.3 to Policy Circular No. 6
Ref: RDSO letter No. RM2/RP, dated 14.07.2022

1. The Policy Circular No. 6 deals with procedure for certification of maximum permissible speed for rolling stock and introduction of trains at different speeds.
2. The existing Policy Circular No. 6 was issued vide Letter No. 2018/CEDO/SR/PC-610, dated 31.10.2018 and subsequently Addendum and Corrigendum Ships (ACS) No.1 and ACSNo.2, to Policy Circular No. 6 were issued vide Letter of even No. dated 12.10.2020 & 28.09.2021 respectively.
3. Board have approved that the Para-3.4.2, Para-3.4.2.1(new para), Para-6.4.1.3, Para-6.5.1, Para-6.5.1.3, Para-6.5.1.4, Para-6.5.2A (new para), Para-6.5.3 and Para-6.6.1.4 of Policy Circular No. 6 be amended, as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 03.

Enclosure: ACS No. 03 (Total 02 page)

Copy to:



अजीत कुमार झा
20.9.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड

[Phone: 030-44803: Rly: 011-23383379:MTNL]

e-mail address : edceg2022@gmail.com

1. DG/RDSO, Lucknow for information and necessary action
2. Commissioners of Railway Safety, All Circles, for information and necessary action
3. Concerned PSO for kind information of Chairman & Chief Executive Officer(CEO), Member (Infrastructure), Member (Traction & Rolling Stock), Member (Finance)
Railway Board
4. Adv./MR, EDPG/MR, OSD/MR, OSR(Co-ord)/MR

Addendum & Corrigendum Slip (ACS) No. 03

TO

Policy Circular No. 6

3.4.2. Based on design parameters of any new locomotive or rolling stock (Coaches/ EMU/ MEMU/ DMU/ Train set, Wagon and Departmental vehicle etc.), a one-time movement speed certificate shall be issued by RDSO, duly stating its similarity (*consideration of MMD, braking System, Axle load, control over rolling stock, etc*) with existing stock already running on IR and route through which movement is to be done. On the basis of speed certificate issued by RDSO, movement of locomotive or rolling stock can be done by the respective Railway.

3.4.2.1. However, if a new rolling stock infringes the MMD of Indian Railway Schedule of Dimensions, in addition to procedure outlined in para 3.4.2, railway shall ensure the movement of such rolling stock as per respective class of ODC in terms of Railway Board's letter no. 2014/CEDO/SR/04 dated 20/10/2014 as amended from time to time. However, if the infringement of a new locomotive or rolling stock is equal or less as similar stock defined in para 3.4.2 above, in that case movement shall be governed by the conditions stipulated for the similar locomotive or rolling stock already running on the Railway.

6.4.1.3. **DELETED**

6.5.1. For introduction of first train in a section, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.

6.5.1.3. Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of Principal Chief Engineer, in place of COCR, can be resorted to for new/existing locomotive or partial replacement of new existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s is/are already running at a speed above 120 kmph. However, Route Proving Run shall not be required for existing rolling stock for which detailed Oscillation Trials had been dispensed with earlier in such cases.

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6.5.1.4 During COCR, the train should run at maximum permissible speed for at least 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analysed by RDSO in terms of stipulated criteria given in para 3 of Appendix-1 and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.

6.5.2A For trains having new type of Coaches/Locomotive, for which COCR has not been carried out earlier, RDSO will identify representative section of minimum 500km length on IR, where COCR shall be carried out by RDSO as per para 6.5.1 above at desired speed. Representative section for conducting COCR shall be advised by Executive Director Standards (Track Machines & Monitoring). Based on COCR, RDSO will issue a final speed certificate valid over IR, which will include special precautions, if any, to be taken by Zonal Railways. On the basis of this speed certificate, Zonal Railways will be able to introduce such trains having new type of Coaches/Locomotive on their Railway with the approval of Principal Chief Engineer in the sections where train/s is/are already running at a speed above 120kmph. There is no need to repeat COCR in each Railway.

6.5.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.5.1 above], having same type of coaches and locomotive for which COCR/Route Proving Run(RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs on respective section of Zonal Railway or representative track), shall require approval of Principal Chief Engineer (not to be delegated further), and there is no need to repeat COCR/RPR and signing of JSC again.

6.6.1.4 During COCR, the train should run at maximum permissible speed for at least 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO in terms of stipulated criteria given in para 3 of Appendix-1 and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/14(1)

New Delhi, dated 16.09.2022

The Director General,
Research Designs & Standards, Organisation
Manak Nagar,
Lucknow-226011.

Sub: Future Improvement of new type of rolling stock Broad Gauge Bogie Hopper wagon type 'BOBSNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing Nos. WD-18076-S-02 (Alt.4), WD-18076-S-16 (Alt.1) & WD-18076-S-28 (Alt.3)

Ref: (i) Railway Board's letter No. 2022/CEDO/SR/14 dated 16.09.2022
(ii) CCRS office letter no. Q.12011/24/2021-22-T.W, dated 12.05.2022
(iii) RDSO's letter no. MW/BOBS, dated 24.01.2022 & 06.06.2022
(iv) RDSO's Provisional Speed Certificate (PSC) no. MW/BOBS dated 20.01.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of new type of rolling stock Broad Gauge Bogie Hopper wagon type 'BOBSNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing Nos. WD-18076-S-02 (Alt.4), WD-18076-S-16 (Alt.1) & WD-18076-S-28 (Alt.3) up to maximum permissible speed of 65 kmph in Empty condition and 60 kmph in Loaded condition over Indian Railways, by Zonal Railways vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following measures for future improvement of the above rolling stock:

- i. The present design of locking arrangement for door operating handle has a provision of horizontal locking pin which may get disengaged during movement of train. The same should be modified by replacing horizontal locking pin with the vertical one.
- ii. BOBSNS wagon is proposed to be operated at a speed of 65/60 kmph in E/L condition based on above mentioned PSC. In order to realize its full speed potential Oscillation Trials over IR & DFC routes may be planned at the earliest.
- iii. Wagon No. (75072010011) allotted by Railway Board indicates that the prototype was manufactured in 2020, whereas its actual build date is 01.06.2021. In order to avoid such discrepancy in future during prototype manufacturing Railway Board may allot wagon no. only after manufacture of the prototype

M
26/09/22

gk *16.09.22*

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- iv. RDSO should explore possibility of designing wagons with 6 axles to decrease the axle load with same loading capacity. This will enable to operate wagons at higher speeds thus increasing the throughput.

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

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(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address :dceg@rb.railnet.gov.in

No No. 2022/CEDO/SR/14(1)

New Delhi, dated 16.09.2022

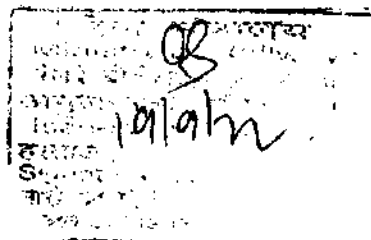
Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/24/2021-22-T.W, dated 12.05.2022
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr), Railway Board

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(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2011/CEDO/SD/17/O/Pt. VI/ACS_a

New Delhi, dated 16.09.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar, Lucknow-226011

Sub : Draft Addendum & Corrigendum Slip to "Standard Schedule of Dimensions, 1976 mm Gauge (Broad gauge) for Eastern and Western Dedicated Freight Corridors of Indian Railways

Ref: DFCCIL's letter no. HQ/EL/WC-I/EMP4/CRS Sanction, dated 12.09.2022

Please find enclosed herewith DFCCIL's letter referred above, proposal for modification in "Standard Schedule of Dimensions, 1976 mm Gauge (Broad gauge) for Eastern and Western Dedicated Freight Corridors of Indian Railways.

RDOS is requested to examine the issue and send Draft Addendum & Corrigendum for approval of Board, if necessary.

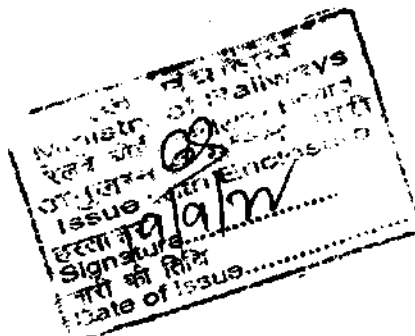
DA: as above

16/09/22
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

ok

Copy forwarded for information to the Managing Director, DFCCIL, 5th floor, Supreme Court Metro Station Building Complex, New Delhi-110001



HQ/EL/WC-VEMP4/CRS Sanction

Dated 12/09/2022

✓ Secretary Engineering
Railway Board,
Rail Bhawan,
New Delhi

Kind Attn.: Sh. S.N.Joshi, ED/CE(G)

Sub.: Regarding SSOD infringements in DFCCIL yards.

Ref.: Rly. Bd. L.No.2011/CEDO/SD/17/O, dated 21.01.2013.

1.0 Railway Board has issued SSOD for DFCCIL vide letter under reference above having following provisions:

SSOD Para 9.2 Building and Structures (Page 38): (Annexure-I)

Clause	Items	Dimensions
9.2.3	Minimum horizontal distance from centre of track to any structure:	
	(i) From rail level to 6670 mm above rail level	2825 mm
	(v) Below the rail level upto the formation level of the track on straight and curves upto radius of 875 m	2575 mm
	(vi) Below the rail level upto the formation level of the track on curves with radius less than 875 m	2725 mm

Para 11.5 Maximum Moving Dimensions (Page 44): (Annexure-II)

11.5.2	Maximum width over open doors, including all projections for goods vehicles upto a height of 4000 mm from rail level	4600 mm
	Note: Wagon shall be designed in such a way that open door is within the kinematic envelope of wagon and there is clearance of 225 mm between kinematic Envelope and Fixed Structure Gauge.	

2.0 Rewari-Madar section comprising 304 RKM is part of WDFC Phase-I Project. Authorization for opening of new electrified BG DFC double rail line from Madar-New Rewari has been given by MD/DFCC on 28/12/2020 as mandated by MoR vide letter no. 2017/Infra/6/33 dated 02/08/2018 (Annex-III) for opening of goods traffic on DFC lines. Electric traction in the section resumed on 07/01/2021 and is continuing. Ministry of Railways vide Gazette Notification No. 2368(E), dated 24/05/2022 (Annex-IV) item (g) has exempted DFC works from CRS sanction.

3.0 Four portal locations in yards (Rewari, Ateli & Phulera) are marginally infringing the SSOD provisions by 25 mm to 45 mm. Summary of the locations are detailed below:

S.N	Section	Portal Location	Implantation		Min required as per SSOD for WDFC	SSOD Required		Condonation
			Front Side	Back Side		Front Side	Back Side	
1	Ateli	1303/21	2.94	2.78	2.825	-	0.045	
2	Ateli	1304/17	3.34	2.78	2.825	-	0.045	
3	Rewari	1331/34	2.85	2.78	2.825	-	0.045	
4	Phulera	1115/37	2.80	3.01	2.825	0.025	-	

Note: Track Curvature Nil.

3.1 Out of above four locations, sn-2 & 4 are obligatory structures, sn-1 cannot be shifted due to TC constraints proximity to cross-over and sn-3 is having five OHE lines. Any modification at this stage is very difficult since complete yard is energised and train operation has already resumed. The minimum implantation, measured at site at these locations, is 2780 mm. Thus, there is a shortage of 45 mm (2825 - 2780) in the prescribed 'Dimension of Fixed Structure Gauge', which could not be shifted as explained.

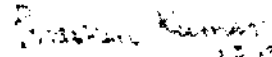
4.0 As per para 11.5.2 of SSOD (Annex-II) reproduced above, the half width of wagons with open doors is 2300 mm, thus there is margin of 480 mm (2780mm-2300mm) still available for safe train operation. The maximum speed in yard is 50 kmph and curve is NIL, thus extra curve allowance is also not required. Therefore, net safety margin from structural gauge to MMD is 480 mm, available at all the four locations.

5.0 As per Preface, para 10 of SSOD for DFC (Annexure-V), specific sanction of Railway Board is required in case of departure from the dimensions prescribed in the document.

- 6.0 Considering above circumstances, Rly Bd. may approve the departure from SSOD provisions at these four locations to be adopted by DECCIL with special precautions s.a
- i) Track slewing
 - ii) lookout notice to drivers.
 - iii) counselling of staff.
 - iv) colour bands/warning boards on the structure for identification by maint. gangs.
 - v) proper record by CGM unit and.
 - vi) any other condition imposed by the Competent Authority.

This has the approval of Competent Authority (MD/DECCIL).

DA/Annexure-I, B, III, IV & V


 (Praveen Kumar) 18.9.2020
 Executive Director/Asset Management/WC

Standard Schedule Of Dimensions For Dedicated Freight Corridors

9.2 Buildings and Structures :

Clause	Items	Dimensions
9.2.1	Minimum horizontal distance of any building or longitudinal boundary from centre line of track on goods platform	9500 mm
9.2.2	Minimum horizontal distance from centre line of track to a pillar, column, lamp or similar isolated structure :	
	(i) From rail level to 725mm above rail level	4280 mm increasing uniformly to 4420 mm
	(ii) From 725mm above rail level to 7100mm above rail level	4420 mm
	(iii) From 7100mm above rail level to 8430mm above rail level	4420 mm decreasing uniformly to 4120 mm
Note : A pillar or a column which covers more than 3716 cm ² in plan, must be classed as "building" and not as an "isolated structure".		
9.2.3	Minimum horizontal distance from centre of track to any structure :	
	(i) From rail level to 6670 mm above rail level	2825 mm
	(ii) From 6670 mm above rail level to 7100 mm above rail level	2825 mm gradually decreasing to 2710 mm
	(iii) From 7100 mm above rail level to 7965 mm above rail level	2710 mm gradually decreasing to 1925 mm and further decreasing to 1600 mm
	(iv) From 7965 mm above rail level to 8430 mm above rail level	1600 mm
	(v) Below the rail level upto the formation level of the track on straight and curves upto radius of 875 m	2575 mm
	(vi) Below the rail level upto the formation level of the track on curves with radius less than 875 m	2725 mm

9.3 Points and Crossings :

Clause	Items	Dimensions
9.3.1	Maximum clearances of check rail opposite the nose of crossing	48 mm
9.3.2	Minimum clearances of check rail opposite the nose of crossing	44 mm

Standard Schedule Of Dimensions For Dedicated Freight Corridors

11.5 Maximum Moving Dimensions : (See Diagram No. 8 At Page No. 59)

Clause	Items	Dimensions
11.5.1	Maximum width over all projections, when fully loaded :	
11.5.1.1	At 102 mm above rail level	2600 mm
11.5.1.2	From 102 mm above rail level to 305 mm above rail level	2600 mm increasing to 3505 mm
11.5.1.3	From 305 mm above rail level to 725 mm above rail level	3505 mm
11.5.1.4	From 725 mm above rail level to 4880 mm above rail level	3660 mm
11.5.1.5	From 4880 mm above rail level to 6670 mm above rail level	3660 mm decreasing to 3000 mm
11.5.1.6	From 6670 mm above rail level to 7100 mm above rail level	3000 mm decreasing to 2600 mm
11.5.2	Maximum width over open doors, including all projections for goods vehicles upto a height of 4000 mm from rail level <u>Note</u> : Wagon shall be designed in such a way that open door is within the kinematic envelop of wagon and there is clearance of 225 mm between Kinematic Envelop and Fixed Structure Gauge.	4600 mm
11.5.3	Maximum height above rail level for a width of 1300 mm on either side of the centre of unloaded vehicle	7100 mm
11.5.4	Minimum height above rail level, when fully loaded at 1752.5 mm from centre of track	305 mm
11.5.4	Minimum height above rail level when fully loaded for a width of 1300 mm on either side of the centre of track with exception of wheels and attachment thereto. <u>Note</u> : A wheel or an attachment of a wheel (such as gear case) may project below the minimum height of 100 mm from a distance of 400mm inside to 216mm outside of the gauge face of the wheel. However, the minimum height of the attachment located at a distance beyond 51mm and upto 400mm inside the gauge face of the wheel shall be 75mm from rail level.	100 mm

- Note :
1. MMD of Eastern Corridor (Diagram No. 4) shall also be valid & applicable on Western Corridor of Dedicated Freight Corridor, as shown in Diagram No. 9.
 2. Wagon should be designed to operate on Feeder Routes also including their platform lines till such time the feeder routes are upgraded to the dimensions of SSOD for DFC.

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GOVERNMENT OF INDIA (सरत सरकार)

MINISTRY OF RAILWAYS (रेल मंत्रालय)

RAILWAY BOARD (रेलवे बोर्ड)

Rail Bhavan, New Delhi

Dated: 02.08.2018

No.2017/Infra/6 35

The General Managers,
All Indian Railway.

The Chief Commissioner of Railway Safety,
Office compound of ORMNER,
Ashok Marg, Lucknow.

Subj: Opening of DFC Electrified double line for Goods traffic.

Ref: (i) Board's letter No. 2016/CEDO/CRM/0/01 dated 27.05.2016
(ii) Board's letter No. 2016/CEDO/CRM/0/01 dated 18.08.2017
(iii) Board's letter No. 2016/CEDO/CRM/0/01 dated 18.08.2017, addressed to MD/DFCCIL
(iv) MD/DFCCIL's letter No. 2017-GM(CIVIL)CRS/39 dated 18.07.17

1. Railway Board had issued instructions regarding opening of DFC lines for goods traffic vide ref. (i) above. However, subsequently, instructions were withdrawn vide ref. (ii) above.
2. Now, MD/DFCCIL has requested Railway Board to authorise MD/DFCCIL for opening of DFC lines for goods traffic vide ref. (i) above.
3. The issue has been re-examined. Considering that DFC lines are for goods traffic only. In supersession of Board's letter dated 18.08.17 (ref. (iii) above), the Board (ME, CRM) has decided the following for opening of DFC lines for goods traffic:
 - (a) Zonal Railway will take L&S sanction for works which are affecting existing JR running lines such as junction stations, modifications to level crossings, construction/modification of ROB, RUBs, FOBs, SFOs etc. All the papers required for seeking sanction of CRS will be prepared by DFCCIL. Necessary completion/commissioning certificates for such works shall be issued jointly by officials of Zonal Railway & DFCCIL.
 - (b) DFC line can be opened for goods traffic by MD/DFCCIL after joint inspection by concerned Chief Train Engineer (CTE), Chief Electrical Distribution Engineer (CEDB), Chief Signal Engineer (CSE) and Chief Safety Officer (CSO) of Zonal Railway. All the papers required for opening of line

P. S. Sagar
02.08.18

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shall be prepared by DFCCIL on the same formats as are being used presently for seeking sanction of CRS.
(iii) The structures like ROB, RUB, FOB, RPOs etc. on Railway land, which affect IR running lines, shall be maintained by Zonal Railway and proper records kept. The maintenance cost shall be chargeable to DFCCIL.

Prem Singh
(Prem Singh Gupta)
EDCE-G.
Railway Board
Telefax: 011-2338347

Copy to: MD DFCCIL for information and necessary action.

MINISTRY OF RAILWAYS

NOTIFICATION

New Delhi, the 24th May, 2022

S.O. 2368(E).—In exercise of the powers conferred by Sub-section (1) of Section 236 of the Railways Act, 1989 (24 of 1989), the Central Government hereby exempt from the application of the provision of Section 21, 22 and 23 of the said Act, the Railway in respect of—

- (a) Construction, rebuilding, modification and strengthening of foot-over-bridges and road-crossings;
- (b) Construction, rebuilding, regirdering and strengthening of minor bridges;
- (c) Regirdering and strengthening of all existing bridges, other than minor bridges;
- (d) Elimination of manned level crossing;
- (e) Upgradation of level crossing, including interlocking outside station limits;
- (f) Introduction of Electric Traction;
- (g) Works related to Dedicated Freight Corridor.

[F.No. 2018 Trans. Cell. (III) 35]

ATUL B. KHARE, Principal Executive Director Civil Engineering Projects

Annen-V

xi.	26.10.06	Railway Board	2006/CE-II/T5/2	Technical parameters for wagons w.r.t. : (i) Axle load : 32.5T (ii) Track Loading Density (TLD) : 121/m (iii) Width : 3.66m
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3. Since no consolidated document was available for addressing various issues related to approval of plans, estimation & design of rolling stocks etc. on DFC, Railway Board in terms of letter no 2011/CEDO/SD/17/O, dated 29.08.11, constituted the Committee of following officers for finalising the document for "Standard Schedule of Dimensions for Indian Railway's Dedicated Freight Corridors".

(i) Shri Alok Kumar, Executive Director/Civil Engg (G), Railway Board	Convener
(ii) Shri Surinder Pal, Executive Director/Civil Engg (P), Railway Board	Member
(iii) Shri Ashesh Agarwal, Executive Director/Mech Engg (F&T), Railway Board	Member
(iv) Shri H.D. Gujrali, Executive Director/Traffic Transp (S), Railway Board	Member
(v) Shri Sanvir Singh, Executive Director/Track-1, RDSO	Member
(vi) Shri A.K. Datta, Director/Infrastructure, DFCCIL	Member
4. The committee further co-opted Shri Mahesh K. Gupta, ED/B&S-I/RDSO and Shri Amitabh Sinha, ED/Wagon/RDSO in the above committee for useful contribution to the proposed document.
5. Based on interactive meetings by all the concerned Directorates (Track Design, Bridges & Structures, Motive Power, Wagon, Signal and Traction Installation Directorates) in RDSO, valuable inputs were received through ED/Track-1/RDSO.
6. These thoughts & concepts were duly deliberated by the nominated committee during its meetings in Railway Board on 05.09.11, 27.09.11, 17.10.11, 18.11.11, 07.02.12, 06.03.12, 12.03.12 and 22.03.12.
7. Based on feedback received from all concerned, the final document for "Standard Schedule of Dimensions" (SSOD) for DFCs has been formulated. It has further been examined and improved upon by the concerned Directorates in Board. Accordingly, the SSOD for DFCs is being issued for adoption with the approval of Railway Board.
8. The above SSOD is broadly based upon the template of IRSOD 2004, which was a revised version of IR's Schedule of Dimensions of 1939 and reprint of 1973.
9. Basic differences in IR's SOD 2004 and DFC's SSOD are as under :

(i) Width of stock	3360mm instead of 3250mm in IRSOD
(ii) Height of stock in mid	5100mm/7100mm instead of 4265mm in IRSOD
10. The dimensions prescribed in this Document are essential for safe working on Dedicated Freight Corridors and sanction of Railway Board shall be specifically required to a departure from these provisions.
11. The Standard Schedule of Dimensions for DFCs consists of only metric units.
12. The sincere efforts of all the members of the nominated committee from Railway Board, RDSO and DFCCIL in drafting and finalising the SSOD document for Dedicated Freight Corridors are duly acknowledged.


 11/1/2013
 (R. Romanathan)

21st January 2013
 Rail Bhawan, New Delhi-110001

Additional Member / Civil Engineering
 Ministry of Railways, Railway Board



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/14

New Delhi, dated 16.09.2022

The Director General,
Research Designs & Standards, Organisation
Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of new type of rolling stock Broad Gauge Bogie Hopper wagon type 'BOBSNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing Nos. WD-18076-S-02 (Alt.4), WD-18076-S-16 (Alt.1) & WD-18076-S-28 (Alt.3) up to maximum permissible speed of 65 kmph in Empty and 60 kmph in Loaded condition over Indian Railways, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/24/2021-22-T.W, dated 12.05.2022

(ii) RDSO's letter no. MW/BOBS, dated 24.01.2022 & 06.06.2022

(iii) RDSO's Provisional Speed Certificate (PSC) no. MW/BOBS dated 20.01.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Hopper wagon type 'BOBSNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing Nos. WD-18076-S-02 (Alt.4), WD-18076-S-16 (Alt.1) & WD-18076-S-28 (Alt.3) up to maximum permissible speed of 65 kmph in Empty and 60 kmph in Loaded condition over Indian Railways, by Zonal Railways, with the following stipulations :

- i. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) no. MW/BOBS Dated 20.01.2022. for operation up to maximum permissible speed of 65 kmph in Empty condition and 60 kmph in Loaded condition, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
- ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

Handwritten signature and date 16.09.22

- iii. *As per Clause 3.1.2 of RDSO's Provisional Speed Certificate (PSC) no. MW/BOBS dated 20.01.2022, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 °C (Tm to Tm+5).*
- iv. *USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present stipulation corresponds to 8GMT).*
- v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic block
- vi. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
- vii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.
- viii. ***WILD shall mandatorily be provided*** before introduction of wagon at speed above 60 kmph. For speed up to 60kmph the WILD *may be progressively installed*. 100% weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.
- ix. Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, Para no. 7.8.9 shall be followed.
- x. No overdue in track/rolling stock maintenance shall be permitted.
- xi. Right powering of loaded trains running with 22.9t axle loaded wagons shall be ensured.
- xii. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

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(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

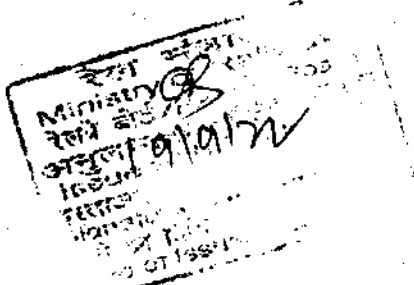
No. 2022/CEDO/SR/14

New Delhi, dated 16.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/24/2021-22-T.W, dated 12.05.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

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(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

No. 70/WDO/ORI/RO/1/VoLIV

Dated : 16.09.2022

Sub: Regarding clarification about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per the "Railway Opening for Public Carriage of Passengers Rules, 2000"

Ref : (i) ECoR's letter No. PCOM/Plg./BBS/CRS Sanction dated 19.07.2022

(ii) SER's letter No. P64/1225/ CRS Sanction dated 16.06.2022

(iii) ED/Safety-II note, dated 08.09.2022

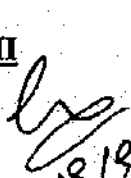
Letter referred (i) & (ii) above received under ED/Safety-II note, dated 08.09.2022{ref.iii}, Regarding clarification about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per the "Railway Opening for Public Carriage of Passengers Rules, 2000".

In view of above, Safety Dte may take necessary steps to resolve the issue in consultation with Signal Dte. as "Chapter VIII Requirement and Recommendation for Sinalling and Interlocking Installations" of 'Railway Opening for Public Carriage of Passengers Rules, 2000' fall in the jurisdiction of Signal Dte.


DCE(G)

EDCE(G)

ED/Safety-II


19/9/22

Sub: Regarding clarification about setting of Overlap while Opening the Trap (DS) in the overlap portion or closing of Trap in the overlap portion as per "Railways Opening for Public Carriage of Passengers Rules, 2000."

Ref: (i) E.Co.Railway's Letter No.PCOM/Plg./BBS/CRS Sanction dated 19.07.2022 (copy enclosed)

(ii) S.E Railway's Letter No.P64/1225/CRS Inspection dated 16.06.2022 (copy enclosed)

It is observed that the issue raised by E. Co. Railway & S.E. Railway is regarding difficulty created by Method (C) of Railway Opening for Public Carriage of Passengers Rules, 2000. As above rules have been notified by Engg.dte., they may see for further necessary action in the matter.

[Signature]
08/09/22
ED/Safety-II

EDCE(G)

[Signature]
12.9.22

DCE/G

Pls. Comment

[Signature]
14.09.22

TA/CEDG

ROE/civ)



दक्षिण पूर्व रेलवे

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कार्यालय
प्र. मुख्य परिचालन प्रबंधक
दक्षिण पूर्व रेलवे
गार्डनरीच, कोलकाता 700043

संख्या: P64/1225/CRS Inspection

दिनांक -16.06.2022

सेवा में,
PED/Safety,
Ministry of Railways,
Rail Bhawan,
New Delhi-110001.

11/7/22

ED/Safety-II

विषय : Regarding clarifications about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per "Railways Opening for Public Carriage of Passengers Rules, 2000."

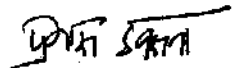
- संदर्भ :**
1. CRS S.E. Circle's Inspection of HATIA yard as discussed at site on Dated 25.05.2022.
 2. Item No.9, Method C of Para No.36 of "Railways Opening for Public Carriage of Passengers Rules, 2000.
 3. GR 3.40 (4), under "Approved Special Instructions", "a Derailing switch shall be deemed to be efficient substitute for the adequate distance referred to in sub-rule(3)"

As per Method (C) of Railways Opening for Public Carriage of Passengers Rules, 2000, "When a trap is used, a train must not be admitted on to the trapped line unless the trap has been closed, so that the train will not be derailed if the driver over shoots the trap." (Reference-2)

Whereas, vide GR 3.40 (4), "under approved special instructions a derailing switch, has been provided for the line on which a train is to be received, they shall be deemed to be efficient substitutes for the adequate distance referred to in sub-rule(3)". (Reference-3)

There is an apparent contradiction between the above two instructions. This contradiction was brought out by CRS/S.E.Circle during his inspection of HATIA Yard & KGP-HIJ section. Since the application of instruction indicated in Method (C) will impose severe restrictions on simultaneous reception and dispatch facilities of trains, it is submitted for granting relaxation on Method (C) as stipulated in GR 3.40 (4).

In view of the above, intervention of Board is solicited for issuing a revised guideline to minimize detention to trains by allowing the DS as sufficient substitutes for adequate distance.


(प्रभास दनसाना)
प्रधान मुख्य परिचालन प्रबंधक

Copy to :

1. CRS/S.E.Circle/Kolkata
2. CAO/Con/SER
3. PCSTE/SER

पूर्व तट रेलवे/East Coast Railway

Office of the
Principal Chief Operations Manager
Rail Sadan, Ground Floor, South Block,
Bhubaneswar - 751 017

PCOM/Plg./BBS/CRS Sanction.

Date: 19.07.2022

To
PED/Safety,
Ministry of Railways,
Rail Bhawan,
New Delhi-110001.

30-28/7

ED/Safety - R

140

29/7

JP/Samy

Sub- Regarding clarification about setting of Overlap while Opening or Closing the Traps (DS) in the Overlap portion as per " Railway opening for Public Carriage of Passengers Rules, 2000."

Ref - CRS Inspection at Titilagarh Station of Sambalpur Division on 16.07.22 & 17.07.22 in connection with Yard Remodelling (P64/1225/CRS Inspection dtd.16.06.2022.)

During inspection of Titilagarh Jn. Station for Yard remodelling in connection with doubling between Titilagarh- Sikir & 3rd line between Titilagarh-Kesinga, CRS/S.E Circle, Kolkata raised the issue of insertion of DS on line nos. 5, 6, 7 and placing starter 120 metres in rear of the DS point in view of method (C) of Railways opening of Public Carriage Passenger Rules 2000.

As per method (C), " When a trap is used, a train must not be admitted on to the trapped line unless the trap has been closed, so that the train will not be derailed if the driver over shoots the trap".

As per GR 3.40 (3), the adequate distance shall never be less than 120 metres for MACLS/MLQS arrangements. Further, GR 3.40 (4) states that - " Where a Sand Hump of approved design, or under approved special Instructions a derailling switch, has been provided for the line on which a train is to be received, they shall be deemed to be efficient substitutes for the adequate distance referred to in sub-rule (3)". So, GR 3.40 (4) clearly speaks of provision of adequate distance being less than 120 metres. In the instant case, since adequate distance of 120 metres is already available as prescribed by GR 3.40(3), the issue of closing of DS for reception of a train does not arise and Method (C) shall not be applicable for this case.

The said arrangement provides flexibility of simultaneous reception & despatch in crucial yards.

But, there is an apparent contradiction in both the above cited guidelines. Since implementation of the instruction issued vide Method (C) will have severe restrictions on simultaneous reception and despatch facilities of trains, it is requested to review the matter and issue necessary guidelines to minimise detention by upholding the rules in GR 3.40(4) as specified above.

(Signature)
(P.K. Jena)

Principal Chief Operations Manager

Copy to:

- CRS/S.E Circle/Kolkata for information please.
- PCSTE/ECOR for information and necessary action please.
- M/s RVNL/WAT for information and necessary action please.



दक्षिण पूर्व रेलवे

कार्यालय
प्र. मुख्य परिवालन प्रबंधक
दक्षिण पूर्व रेलवे
गार्डनरीच, कोलकाता 700043

संख्या: P64/1225/CRS Inspection

दिनांक -16.06.2022

सेवा में,
PED/Safety,
Ministry of Railways,
Rail Bhawan,
New Delhi-110001.

Handwritten signature
24/6/22

विषय : Regarding clarifications about setting of Overlap while Opening the Trap(DS) in the overlap portion or closing of Trap in the overlap portion as per "Railways Opening for Public Carriage of Passengers Rules, 2000."

- संदर्भ:*
1. CRS S.E. Circle's Inspection of HATIA yard as discussed at site on Dated 25.05.2022.
 2. Item No.9, Method C of Para No.36 of "Railways Opening for Public Carriage of Passengers Rules, 2000.
 3. GR 3.40 (4), under "Approved Special Instructions", "a Derailing switch shall be deemed to be efficient substitute for the adequate distance referred to in sub-rule(3)"

As per Method (C) of Railways Opening for Public Carriage of Passengers Rules, 2000, "When a trap is used, a train must not be admitted on to the trapped line unless the trap has been closed, so that the train will not be derailed if the driver over shoots the trap." (Reference-2)

Whereas, vide GR 3.40 (4), "under approved special instructions a derailing switch, has been provided for the line on which a train is to be received, they shall be deemed to be efficient substitutes for the adequate distance referred to in sub-rule(3)". (Reference-3)

There is an apparent contradiction between the above two instructions. This contradiction was brought out by CRS/S.E.Circle during his inspection of HATIA Yard & KGP-HIJ section. Since the application of instruction indicated in Method (C) will impose severe restrictions on simultaneous reception and dispatch facilities of trains, it is submitted for granting relaxation on Method (C) as stipulated in GR 3.40 (4).

In view of the above, intervention of Board is solicited for issuing a revised guideline to minimize detention to trains by allowing the DS as sufficient substitutes for adequate distance.

Handwritten signature
(प्रभास दनसाना)
प्रधान मुख्य परिवालन प्रबंधक

Copy to :

1. CRS/S.E.Circle/Kolkata
2. CAO/Con/SER
3. PCSTE/SER

No. 70/WDO/ORI/RO/1/VolIV
Dated : 14.09.2022

Sub: Improved standard yard layout design with mid line as Common loop
Ref : (i) CCRS's letter No. M.15013/01/2017-18-T.W. dated 15.07.2022
(ii) JD/Safety(A&R)'s note, dated 26.07.2022

Letter referred (i) above received under JD/Safety(A&R)'s note dated 12.05.2022{ref.ii}, wherein CCRS has suggested certain layouts with sandwich type common loop for improved safety scenario.

In view of above, Safety Dte may take necessary steps to resolve the issue in consultation with Signal Dte. as "Chapter VIII Requirement and Recommendation for Signalling and Interlocking Installations" of 'Railway Opening for Public Carriage of Passengers Rules, 2000' fall in the jurisdiction of Signal Dte.

[Signature]
14/09/2022
DCE(G)

EDCE(G)

ED/Safety-II



75
आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/24/Vande Bharat-160kmph

New Delhi, dated 12.09.2022

The Chief Commissioner of Railway Safety,
Office Compound of DRM/NER, Ashok Marg,
Lucknow-226001

Sub: Introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code : TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001/TS/MC2-9-0-001 & TS/TC-9-0-001/TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) & Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively] up to maximum speed of 160 kmph over Indian Railway, by Zonal Railways

- Ref: (i) CCRS office letter no. Q.12011/16/2022-23-T.W, dated 08.09.2022
(ii) RDSO's letter no.. TS/SC/Operation, dated 09.09.2022
(iii) RDSO's Final Speed Certificate No. TS/SC/Operation, dated 02.09.2022
(iv) Railway Board letter of even number, dated 08.09.2022

Item wise comments on measures recommended by CCRS {ref(i)}, received from RDSO for the Trainset with new design propulsion system & bogies (Vande Bharat Train set), vide letter no. TS/SC/Operation, dated 09.09.2022 {ref (ii)} forwarded herewith for your kind perusal please.

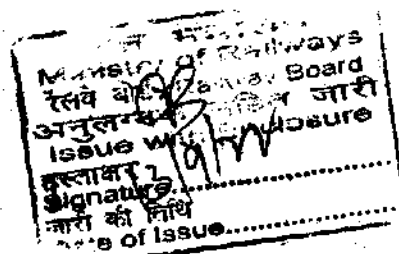
DA : as above

[Signature]
12.09.2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in



RESEARCH DESIGN & DEVELOPMENT
SECTION - 22401
CHENNAI
TAMIL NADU

RESEARCH DESIGN & DEVELOPMENT
SECTION - 22401
CHENNAI
TAMIL NADU

MEMO/SC/Operation

Date:

Executive Engineer (G)

Section - 22401

Chennai - 600 001

Subject: The end of train service new design and its...
The end of train service is to be up to a maximum speed of...
The end of train service is to be up to a maximum speed of...

For the above mentioned to be taken up for the...

The end of train service is to be up to a maximum speed of...
The end of train service is to be up to a maximum speed of...

For the above mentioned to be taken up for the...

DA 12/01/01

Executive Engineer (G)

- 1) General Manager, ICE Chennai For kind information.
- 2) General Manager, Railway Board For kind information.

Safety Conference to discuss on Safety Inspection of Train set with new Design Propulsion System & Bogies (Vande Bharat Train set) - Annexure 3 of CCR's letter no.

Ref: CCR's letter no. 10022/2022 dated 14.06.2022

Sl. No.	Issues/Queries	Remarks
I	The design of Vande Bharat Train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.	The design of the train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.
II	The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.	The design of the train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.
III	The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.	The design of the train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.
IV	The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.	The design of the train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.
V	The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.	The design of the train set as per the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, has been completed. The design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India, and the design of the train set is based on the specifications of the Ministry of Railways, Govt. of India, New Delhi, India.

Signature of the Design Engineer

Signature of the Design Engineer

redaction of Social
INDEX

More than 100
have been
injured
and 10
killed
so far.

THE UNIVERSITY OF CHICAGO

The following items are covered under Item 1 and 2 of the contract and are not covered by the State. This will allow the project to be completed in a timely manner which may affect the functioning of doors. gap should be covered.

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There is a provision of automatically extending one of the steps for concerns that are not well articulated and back out a case if it is not during the waiting time. Although the positive contribution to the system is that it helps to get a lot of cases out of the system, it also creates the risk of a case being referred to the court for no reason at all.

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Presently there is provision to open the door by pressing a button when outside. This provision is very difficult for any unwanted person to open the door when train is standing in a platform or wayside station or to stop at a related location. Provision should be made to enable or disable the door operated by Driver so that no unwanted person is able to open the door.

The following table shows the results of the regression analysis for the dependent variable "Number of children in the household" (N = 1,000). The table is organized into three columns: "Variable", "Coefficient", and "Standard Error". The variables are listed in the first column, and the corresponding coefficient and standard error are listed in the second and third columns, respectively. The table is titled "Table 1: Regression results for the dependent variable 'Number of children in the household'".

As a result, further in America, a lot of people suffer a poor operating system. When a lot of people are in a bad situation, they will be in a bad situation and they will be in a bad situation. When a lot of people are in a bad situation, they will be in a bad situation and they will be in a bad situation.

06/10/20

100-443887-100

19	It should be ensured that at least one western style seat should be provided in toilet in each coach as it will be very difficult to use Indian style toilets at higher speeds and curves due to lot of oscillations and vibrations.	As per approved layout, the position of the toilet is as follows: <table><tr><td>End DTCs</td><td>01 Western style toilet</td></tr><tr><td>All other coaches</td><td>One Indian style toilet and one Western style toilet</td></tr></table> There is an additional Western style toilet in the end of the train.	End DTCs	01 Western style toilet	All other coaches	One Indian style toilet and one Western style toilet
End DTCs	01 Western style toilet					
All other coaches	One Indian style toilet and one Western style toilet					
20	Passenger response indicators should be provided in the coaches where these indicators are required to get suitable signal for the train should be provided at these locations and coaches which are prone to be responsive after providing necessary signals of response from the train should be furnished by crossing the sections as well as come.	Refer to the layout.				

ED (General) / RDSO


ED (General) / RDSO

NOISE TEST AT DCL LOAD CONDITION- STATIC AND DYNAMIC TEST
REPORT FOR MAE675UV2 / CD-3109 Rev.-3


RDSO Representative


MEDHA Representative

Test Description

Noise Test

- Placed the vehicle stand-still at LABAN Railway Station of WCR.
- Train formation was with 16 nos. of coaches in DCL load condition.
- Compressor was made on.
- Aircos were made on.
- All the doors were closed.

Observations in Stand-still condition

Sl. No.	Test Set	Pass Criteria (Desired Result)	Observed Value	Comments
1.	Measured the noise level in passenger area along the centre line between 1.2 m and 1.6 m above the floor and at a distance not less than 0.6 m from the end of the car.	65 dBA	DTC/226431- 64.4 dBA MC1/226435- 64.7 dBA TC/226439- 59.6 dBA MC2/226442- 64.3 dBA NDTC/223782- 64.9 dBA	Max. observed value was recorded during measuring at different 5 locations.
2.	Measured the noise level in crew area	Noise level was within the acceptable level	DTC/226431- 66.6 dBA DTC/226430- 65.8 dBA	Max. observed value was recorded.
3.	Measured the noise level at outside the vehicle area at 7.5 meters from the center line of track, 1.2 and 3.5 m above the upper surface of the rails.	68 dBA	DTC/226431- 67.3 dBA MC1/226435- 64.6 dBA TC/226439- 66.9 dBA MC2/226442- 67.3 dBA NDTC/223782- 67.3 dBA	Max. observed value was recorded during measuring at different 5 locations.
4.	Measured the starting noise level at outside the vehicle area at 7.5 m from the center line of track, 1.2 m and 3.5 m above the upper surface of the rails	82 dBA	79.8 dBA	Max. observed value recorded at 30 kmph from outside the rake.
5.	Verified the vibration level in passenger area	Vibration level should not be discomfort to the passengers	Vibration test is part of Oscillation Trials which has been conducted by Testing Directorate/ RDSO. However, during	
6.	Verified the vibration level in crew area	Vibration level should not be discomfort to the crew	run, no discomfort was felt in passenger and crew area.	

RDSO Representative

MEDHA Representative

Observations in running condition at 160 kmph

SL No.	Test Set	Pass Criteria (Desired Result)	Observed Value	Comments
1.	Measured the noise level in passenger area along the center line between 1.2 m and 1.6 m above the floor and at a distance not less than 0.6 m from the end of the car.	70 dBA	DTC/226431- 67.3 dBA MC1/226435- 68.9 dBA TC/226439- 68.7 dBA MC2/226442- 68.8 dBA NDTC/223782- 67.8 dBA	Max. observed value was recorded by measuring at different 5 locations.
2.	Measured the noise level in crew area	Noise level was within the acceptable level	DTC/226431- 80.7 dBA DTC/226430- 80.3 dBA	Max. observed value was recorded.
3.	Verified the vibration level in passenger area	Vibration level should not be discomfort to the passengers	Vibration test is part of Oscillation Trials which has been conducted by Testing Directorate/ RDSO. However, during run, no discomfort was felt in passenger and crew area.	
4.	Verified the vibration level in crew area	Vibration level should not be discomfort to the crew		

Environmental Condition- Recorded on mobile through google.

- Temperature - 32°C
- Humidity - 65%
- Wind Speed - 06 kmph

[Signature]
RDSO Representative

[Signature]
MEDHA Representative

Objective and Scope of Test-

The objective of this test was to witness the internal noise and external noise emitted by the vehicle when stationary and in running condition.

Test Name	Start Test Date	End of Test Date	Place of Test
Noise Test at DCL load	01.09.2022	01.09.2022	LABAN Rly. Stn. of WCR

Applicable Document-

Standard	Description
IEC 61133-2006	Railway Application – Testing of Rolling Stock on Completion of Construction and before Entry into Service

Protocol Name- CD Number	Approved Revision No.
Noise Test at DCL Load - CD - 3109	Rev. 3

Details of Test Methods-

Test Prerequisite-

- The test was performed with 16 car train formation with stand-still and in running condition.

Initial Condition

- Train formation was of 16 car with DCL Load

Test Equipment and Test Set-up-

- Noise level meter.

Set-up-

- The vehicle was held stationary by service brakes (or by alternate means) before conduction the test.

SL No.	Instrument Name	Make	Instrument ID	Date of calibration	Calibration Due Date
1.	Sound level meter	Lutron	SL-4033SD	21.02.2022	20.02.2023

Note- Calibration Certificate attached as Annexure-1


RDSO Representative


MEDHA Representative

143

**NOISE TEST AT TARE LOAD CONDITION- STATIC AND DYNAMIC TEST
REPORT FOR MAE675UV2 / CD-3108 Rev.-3**

[Signature]
RDSO Representative

[Signature]
MEDHA Representative

Te Description

Noise Test

- Placed the vehicle stand-still at GHAT KA VARANA Railway Station of WCR.
- Train formation was with 16 nos. of coaches in Tare load condition.
- Compressor was made on
- Aircos were made on
- All the doors were closed.

Observations in Stand-still condition

SL No.	Test Set	Pass Criteria (Desired Result)	Observed Value	Comments
1.	Measured the noise level in passenger area along the center line between 1.2 m and 1.6 m above the floor and at a distance not less than 0.6 m from the end of the car.	65 dBA	DTC/226431- 63.2 dBA MC1/226435- 64.1 dBA TC/226439- 61.3 dBA MC2/226442- 62.4 dBA NDTC/223782- 64.2 dBA	Max. observed value was recorded during measuring at 5 different locations.
2.	Measured the noise level in crew area	Noise level was within the acceptable level	DTC/226431- 64.5 dBA DTC/226430- 65.1 dBA	Max. observed value was recorded.
3.	Measured the noise level at outside the vehicle area at 7.5 meters from the center line of track, 1.2 and 3.5 m above the upper surface of the rails.	68 dBA	DTC/226431- 66.8 dBA MC1/226435- 65.3 dBA TC/226439- 65.8 dBA MC2/226442- 66.9 dBA NDTC/223782- 65.9 dBA	Max. observed value was recorded during measuring at 5 different locations.
4.	Measured the starting noise level at outside the vehicle area at 7.5 m from the center line of track, 1.2 m and 3.5 m above the upper surface of the rails	82 dBA	80.1 dBA	Max. observed value recorded at 30 kmph from outside the rake.
5.	Verified the vibration level in passenger area	Vibration level should not be discomfort to the passengers	Vibration test is part of Oscillation Trials which has been conducted by Testing Directorate/ RDSO. However, during	-
6.	Verified the vibration level in crew area	Vibration level should not be discomfort to the crew	run, no discomfort was felt in passenger and crew area.	-

[Signature]
RDSO Representative

[Signature]
MEDHA Representative

(145)

Observations in running condition at 160 kmph

SL No.	Test Set	Pass Criteria (Desired Result)	Observed Value	Comments
1.	Measured the noise level in passenger area along the center line between 1.2 m and 1.6 m above the floor and at a distance not less than 0.6 m from the end of the car.	70 dBA	DTC/226431- 68.2 dBA MC1/226435- 68.6 dBA TC/226439- 67.9 dBA MC2/226442- 69.1 dBA NDTC/223782- 68.3 dBA	Max. observed value was recorded by measuring at different 5 locations.
2.	Measured the noise level in crew area	Noise level was within the acceptable level	DTC/226431- 77.8 dBA DTC/226430- 75.9 dBA	Max. observed value was recorded.
3.	Verified the vibration level in passenger area	Vibration level should not be discomfort to the passengers	Vibration test is part of Oscillation Trials which has been conducted by Testing Directorate/ RDSO. However, during	
4.	Verified the vibration level in crew area	Vibration level should not be discomfort to the crew	run, no discomfort was felt in passenger and crew area.	

Environmental Condition- Recorded on mobile through google.

- Temperature - 33°C
- Humidity - 70%
- Wind Speed - 04 kmph

[Signature]
RDSO Representative

[Signature]
MEDHA Representative

Objective and Scope of Test-

The objective of this test was to witness the internal noise and external noise emitted by the vehicle when stationary and in running condition.

Test Name	Start Test Date	End of Test Date	Place of Test
Noise Test at DCL load	26.08.2022	26.08.2022	GHAT KA VARANA Rly. Strn. of WCR

Applicable Document-

Standard	Description
IEC 61133-2006	Railway Application – Testing of Rolling Stock on Completion of Construction and before Entry into Service

Protocol Name- CD Number	Approved Revision No.
Noise Test at Tare Load- CD - 3108	Rev. 3

Details of Test Methods-

Test Prerequisite-

- The test was performed with 16 car train formation with stand-still and in running condition.

Initial Condition

- Train formation was of 16 car with Tare Load

Test Equipment and Test Set-up-

- Noise level meter.

Set-up-

- The vehicle was held stationary by service brakes (or by alternate means) before conduction the test.

SL No.	Instrument Name	Make	Instrument ID	Date of calibration	Calibration Due Date
1.	Sound level meter	Lutron	SL-4033SD	21.02.2022	20.02.2023

Note- Calibration Certificate attached as Annexure-1

[Signature]
RDSO Representative

[Signature]
MEDHA Representative



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/24/Vande Bharat-160kmph

New Delhi, Dated 08.09.2022

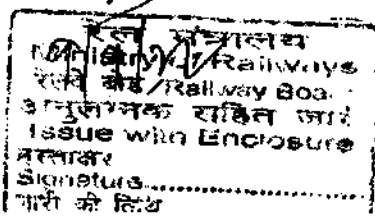
The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code : TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001/TS/MC2-9-0-001 & TS/TC-9-0-001/TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) & Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively], up to a maximum speed of 160 kmph over Indian Railway, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/16/2022-23-T.W, dated 08.09.2022.
(ii) RDSO's letter no.. TS/SC/Operation, dated 02.09.2022
(iii) RDSO's Final Speed Certificate No. TS/SC/Operation, dated 02.09.2022

Chief Commissioner of Railway Safety, Lucknow, while forwarding the case for the sanction the Railway Board for introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) [Unique Transportation Code : TSDTC, TSMC/TSMC2, TSTC & TSNDTC/TSNDTC2 and Layout Drawing No. TS/DTC-9-0-001, TS/MC-9-0-001/TS/MC2-9-0-001 & TS/TC-9-0-001/TS/NDTC/EC-9-0-001 & TS/NDTC/EC2-9-0-001 for Driving Trailer Coach (DTC), Motor Coach (MC/MC2), Trailer Coach (TC) & Non-Driving Trailer Coach- Executive Class (NDTC/EC/NDTC/EC2) respectively] up to maximum speed of 160 kmph over Indian Railway, by Zonal Railways, has recommended certain measures to be taken before introduction of the above Trainset (Vande Bharat Train set), reproduced as under :

- In case of deflated air spring, as per RDSO's Speed Certificate, speed should be restricted to 60kmph. But during testing it was observed that only traction is cut-off on detection of deflated spring and no action is automatically taken to bring down the speed to 60kmph.



08.09.22

Provision for applying service brakes to bring down speed to 60kmph should be implemented.

- ii. Two times high Jerks were felt during speed trial while full service braking. It appears that blending of Electrical braking and pneumatic braking is not proper in the full range of 160kmph to 0 kmph. This needs to be reviewed and rectified.
- iii. Jerks were also felt at the time of starting of the train due to sudden acceleration causing passenger discomfort. This may also be attended while keeping the acceleration rate within the prescribed limit.
- iv. There is no provision of locking the cab door connecting the cab to the passenger area. This may create an unsafe situation during run due to entry of any unauthorized person in the cab. Suitable arrangement may be made in the cab door for locking it from inside (driver side) whenever desired.
- v. During the trial run, Noise Level in empty Motor coach was measured as 75dB. Noise level in cab was about 90dB and in doorway area it was measured as 85dB. These levels are on higher side. Steps should be taken to reduce the Noise Level in cab to 65 to 70 dB. Railway may study and adopt sound proofing arrangements similar to WDG-6G (GE Loco). Noise levels in passenger area should be measured as per the international standards and brought down within the prescribed limit.
- vi. There is large gap between door leaf and coach body when door is in open state. This will allow ingress of dust and foreign material which may affect the functioning of doors. This gap should be covered.
- vii. There is a provision of automatically extending one of the steps for covering the area between platform and coach. But it was disabled during the trial run. There should be positive confirmation to driver confirming proper retract of extended portion before starting the train to ensure that there are no protruding parts violating IRSOD.
- viii. Presently there is provision to open the door by pressing a button from outside. This provision is very unsafe as any unwanted person may open the door when train is standing in yard or wayside station or in section at isolated location. Provision should be made to enable or disable these switches by Driver so that no unwanted person is able to open the door.
- ix. VCD (Vigilance Control Device) button on ALP side was not working properly during testing. It should be attended. The timing of glowing of lamp and activation of buzzer was also not as per extant instructions on the subject which may be reset to bring it within the prescribed range.
- x. 02 nos. of Fire Extinguisher have been provided inside sealed glass in the gangway area. However, no instructions have been pasted on how to break the glass and take it out. Suitable instructions may be pasted for taking it out during emergency.
- xi. Board/sticker displaying the instructions for opening the automatic plug door from inside may be pasted at a suitable location near the sensor.

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08-09-22

- xii. Wipers in cab were not effective during the trial run. Spray of water jets were also not properly placed and not effectively cleaning the windshield. Moreover, cleaning of windshield is a difficult task by LP/ALP during the run. Thus, effective method should be devised and implemented for cleaning the windshield enroute.
- xiii. Smoke detection points provided inside coach and doorway area are having very small holes. These holes are likely to get blocked due to deposition of dust etc. which will make smoke detection system ineffective. There is no set procedure for testing and cleaning of these points. As it is a fire safety issue, proper system of testing, cleaning and maintenance should be devised with proper upkeep of record. Efforts should also be made to increase the diameter of smoke suction holes inside coaches.
- xiv. It should be ensured that at least one western style seat should be provided in toilet in each coach as it will be very difficult to use Indian style toilets at higher speeds and curves due to lot of oscillations and vibrations.
- xv. Regular trespassing locations should be identified on the route where these trainsets are planned to run. Suitable sturdy fencing should be provided at these locations. Locations, which are prone to trespassing even after providing fencing, suitable RUB of restricted height (2mx2m) should be constructed for crossings of pedestrians as well as cattle.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

o/c

[Signature] 08.09.2022
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/24/Vande Bharat-160kmph

New Delhi, Dated 08.09.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME (Coaching), Railway Board

[Signature]
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



नागर विमानन मंत्रालय
(रेल संस्था आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

N.E.Rly. 31-140, N.Rly. 23-280
फैक्स / Fax-0522-2233085, 2233087
E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
18, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
18, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/16/2022-23-त.वि.

दिनांक-08.08.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ-EDCE(G)]

विषय: Introduction of Trainset with new design propulsion system & bogies (Vande Bharat Train set) for operation up to a maximum speed of 160 kmph over Indian Railways for use by any Railway

संदर्भ: (I) DG/RDSO's letter No. TS/SC/Operation, dated 02.09.2022
(II) RDSO's Final Speed Certificate (FSC) no. TS/SC/Operation, dated 02.09.2022

Vide reference (I), DG/RDSO has approached this office for recommending sanction of Central Government for introduction of Train Set with new design Propulsion System & Bogies (Vande Bharat Trainset) for operation up to a maximum speed of 160 kmph over Indian Railways for use by any Railway on the basis of RDSO's FSC mentioned at reference (II).

Unique Transportation Code and Layout Drawing No. of proposed coaches of Train Set are as under:

SN	Type of coach	Layout Drawing No.	Transportation code
1	Driving Trailer Coach (DTC)	TS/DTC-9-0-001	TSDTC
2	Motor Coach (MC/MC2)	TS/MC-9-0-001	TSMC
		TS/MC2-9-0-001	TSMC2
3	Trailer Coach (TC)	TS/TC-9-0-001	TSTC
4	Non-Driving Trailer Coach-Executive Class (NDTC/EC/NDTC/EC2)	TS/NDTC/EC-9-0-001	TSNDTC
		TS/NDTC/EC2-9-0-001	TSNDTC2

Statutory inspection of the subject rolling stock was carried out by CCRS on 06.09.2022 at New Delhi Railway Station (NDLS)/Northern Railway, New Delhi on 06.09.2022 followed by speed trial of the rake in NDLS-AGC & back upto a maximum speed of 180 Kmph. Inspection report of the rolling stock is enclosed as Annexure-1.

Based on the examination of documents/clarifications submitted by RDSO, inspection and subsequent Speed trial of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for introduction of Train Set with new design Propulsion System & Bogies (Vande Bharat Trainset) for operation up to a maximum speed of 160 [ONE HUNDRED SIXTY] kmph over Indian Railways with conditions mentioned in Annexure-2.

'Measures to be taken for improvement of Vande Bharat Train set' extracted from CCRS Inspection Report is enclosed as Annexure-3. The compliance of the same should be submitted to the Commission before the introduction of the subject rolling stock.

Further, 'Measures for further improvement of Vande Bharat Train set' are also attached as Annexure-4.

This is issued with the approval of Chief Commissioner of Railway Safety.

अहमद नदीम सिद्दीकी
01/09/2022

उप रेल संस्था आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (सवारी डिब्बा)

सवारी डिब्बा निदेशालय (एनेक्सी-1).

अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Train Set with new design Propulsion System & bogies (Vande Bharat Train set) for operation up to a maximum speed of 160 kmph over Indian Railways

For operation of Vande Bharat Trainset upto 130 kmph-

1. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. SV TS/SC/Operation, dated 02.09.2022. Remarks of the Railways against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 Kmph should be strictly complied.
4. As the leading coach of Vande Bharat trainset are much lighter than the locomotive, hitting of any obstruction or even cattle run over may lead to serious accident at higher speeds. Therefore,
 - i. For speed more than 110 kmph, all the level crossing shall be replaced by suitable grade separation (ROB, RUB etc.) in a time bound manner.
 - ii. Railway shall identify regular trespassing locations and to avoid trespassing at these locations, suitable mechanism such as deployment of RPF personnel, regular patrolling, providing 2x2 mtr subway (for passing farmers along with cattle) etc. shall be put in place.
5. As per Para 7.8.9 of IRSEM 2021, important minimum signalling features shall be ensured during train running
6. Multi Aspect Colour Light Signalling (MACLS) with two Distant Signals or Automatic Signalling shall be provided. If two Distant Signals are provided, the Distant (outer most) signal shall be located at a Distance of not less than 2Km in rear of the home signal. The Inner Distant Signal (existing Distant Signals) can be retained at its present distance in rear of the existing home signal. This shall also be applicable to the IBS and the interlocked level crossing gates located in the block sections.
7. Where Automatic Signalling is not provided, means for verifying complete arrival of train by provision of Block Proving by Axle Counter (BPAC) is necessary on high density routes and for stations provided with central panel interlocking.
8. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.
9. All type of brake systems including regenerative brakes of all the coaches shall be maintained in good working order during operation.
10. As per Para 6.1.2 of Revised Policy circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General rules 1976-Rule 4.08 1(a).
11. It shall be ensured that driver cab is locked from inside during run to prevent the entry of any unauthorized person.
12. Regular announcements shall be made through PA system Informing all persons other than passengers to disembark from the train before its departure.
13. Earthing in the coach body & all the panels shall always be properly maintained.
14. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, Dated 09.06.2004 and RDSO's Report no.CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS Dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 Kmph:
 - (a) Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
 - (b) Boundary wall for safety and security of the rake and the facilities.
 - (c) Automatic washing plant at entry point.
 - (d) Wheel profile measurement and re-profiling system.
 - (e) In-situ wheel changing facility.

Ans
8/9/2022

- (f) Automated and instrumented maintenance system in lieu of existing system based on visual inspection.
- (g) A separate bay with capacity for lifting and change of complete bogie platform for attention to roof mounted AC equipments.

15. Railway shall deploy qualified and dedicated staff for the maintenance of Vande Bharat Trainset.

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In addition of above, following stipulations shall be applicable for operation of Vande Bharat Trainset beyond 130 Kmph and upto 160 kmph

1. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 Kmph trains. Suitable guidelines shall be issued by the Railway in this regard.
2. Rail grinding at regular interval shall be done on the entire route for better riding behaviour and to avoid rail fracture/weld failures. Regular greasing of all the curves in the section shall be ensured.
3. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthen first before permitting higher speed.
4. Electrical operation of points and means for locking both switches, means for lock detection and independent switch detection by the respective signals shall be ensured. The interlocking between signal and points shall be by electrical or electronic means (PI/RR/SSI).
5. Provision of Train Protection Warning System (TPWS) shall be ensured on the route for operation at 160 Kmph.
6. Track geometry shall be monitored once in a month by OMS, once in two months by Track Recording Car and once in Four months by Oscillograph car. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.

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8/9/2022

Suggestions for Improvement of Vande Bharat Trainset

Statutory inspection of the rolling stock by the CCRS was carried out on 06.09.2022 New Delhi Railway Station (NDLS)/Northern Railway, New Delhi. Para 2 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

- i. In case of deflated air spring, as per RDSO's Speed Certificate, speed should be restricted to 60kmph. But during testing it was observed that only traction is cut-off on detection of deflated spring and no action is automatically taken to bring down the speed to 60kmph. Provision for applying service brakes to bring down speed to 60kmph should be implemented.
- ii. Two times high Jerks were felt during speed trial while full service braking. It appears that blending of Electrical braking and pneumatic braking is not proper in the full range of 160kmph to 0 kmph. This needs to be reviewed and rectified.
- iii. Jerks were also felt at the time of starting of the train due to sudden acceleration causing passenger discomfort. This may also be attended while keeping the acceleration rate within the prescribed limit.
- iv. There is no provision of locking the cab door connecting the cab to the passenger area. This may create an unsafe situation during run due to entry of any unauthorized person in the cab. Suitable arrangement may be made in the cab door for locking it from inside (driver side) whenever desired.
- v. During the trial run, Noise Level in empty Motor coach was measured as 75dB. Noise level in cab was about 90dB and in doorway area it was measured as 85dB. These levels are on higher side. Steps should be taken to reduce the Noise Level in cab to 65 to 70 dB. Railway may study and adopt sound proofing arrangements similar to WDG-6G (GE Loco). Noise levels in passenger area should be measured as per the international standards and brought down within the prescribed limit.
- vi. There is large gap between door leaf and coach body when door is in open state. This will allow ingress of dust and foreign material which may affect the functioning of doors. This gap should be covered.
- vii. There is a provision of automatically extending one of the steps for covering the area between platform and coach. But It was disabled during the trial run. There should be positive confirmation to driver confirming proper retract of extended portion before starting the train to ensure that there are no protruding parts violating IRSOD.
- viii. Presently there is provision to open the door by pressing a button from outside. This provision is very unsafe as any unwanted person may open the door when train is standing in yard or wayside station or in section at isolated location. Provision should be made to enable or disable these switches by Driver so that no unwanted person is able to open the door.
- ix. VCD (Vigilance Control Device) button on ALP side was not working properly during testing. It should be attended. The timing of glowing of lamp and activation of buzzer was also not as per extant instructions on the subject which may be reset to bring it within the prescribed range.
- x. 02 nos. of Fire Extinguisher have been provided inside sealed glass in the gangway area. However, no instructions have been pasted on how to break the glass and take it out. Suitable instructions may be pasted for taking it out during emergency.
- xi. Board/sticker displaying the instructions for opening the automatic plug door from inside may be pasted at a suitable location near the sensor.
- xii. Wipers in cab were not effective during the trial run. Spray of water jets were also not properly placed and not effectively cleaning the windshield. Moreover, cleaning of windshield is a difficult task by LP/ALP during the run. Thus, effective method should be devised and implemented for cleaning the windshield enroute.
- xiii. Smoke detection points provided inside coach and doorway area are having very small holes. These holes are likely to get blocked due to deposition of dust etc. which will make smoke detection system ineffective. There is no set procedure for testing and cleaning of these points. As it is a fire safety issue, proper system of testing, cleaning and maintenance should be devised with proper upkeep of record. Efforts should also be made to increase the diameter of smoke suction holes inside coaches.

Ans
 8/9/2022

Annexure-3/Page 2 of 2
[of CCRS Office's Letter No. Q.12011/16/2022-23-त.वि., Dated 08.09.2022]

- xiv. It should be ensured that at least one western style seat should be provided in toilet in each coach as it will be very difficult to use Indian style toilets at higher speeds and curves due to lot of oscillations and vibrations.
- xv. Regular trespassing locations should be identified on the route where these trainsets are planned to run. Suitable sturdy fencing should be provided at these locations. Locations, which are prone to trespassing even after providing fencing, suitable RUB of restricted height (2mx2m) should be constructed for crossings of pedestrians as well as cattle.

Ans
8/9/2022

Measures for further improvement of Vande Bharat Trainset

Statutory inspection of the rolling stock by the CCRS was carried out on 06.09.2022 New Delhi Railway Station (NDLS)/Northern Railway, New Delhi. Para 3 of CCRS Inspection Report which suggests the measures for future improvement of the Trainset is reproduced below for taking necessary action for their implementation:

- i. Minimum setting of Volume of PA system is considerably higher. It should be reduced by at least 50%.
- ii. It is observed that Black-box type voice and video storage device is provided which is fire and water resistant. This is a good initiative and will go a long way to analyse cause of any untoward incidence. It was informed that 10hrs of videos from cameras, 10 min of conversation recording between driver and guard and 10 min of video recording of cab is stored in this storage device. It is further informed that cab voice is not yet recorded in this storage device and only the conversation done through PA system is recorded. Efforts should be made to increase the duration of storage for cab view and LP-Guard conversation from 10 min to 1 hr at least. Moreover, conversations between LP-ALP are not yet recorded, which should also be recorded and stored.
- iii. When door is closed, the top most step is accessible from inside. Width of this gap is large enough to entrap someone causing injury to passenger if not alert. This gap should be removed by suitably modifying the steps.
- iv. RDSO and ICF may deliberate on the issue of provision of 'opening the door' from outside as it may create unsafe situation as discussed in Para 2(viii) above by comparing the feature with international specifications/standards and obtaining feedback from all stakeholders. The decision may be communicated before implementation for appreciation by the Commission.
- v. Peak Current taken by the trainset during trial run was more than 450amps and in cruising mode at 160 kmph, current drawn by trainset is around 175amps. These values will be higher when train is fully loaded. Under such circumstances, proper study should be made for running of number of trains along with trainset from one feeding post in absolute block section as well as automatic signal territory. Such restriction on number of trains should be included in working timetable on routes where these trainset are planned to run.
- vi. There were 3 signal failures occurred during the trial run which are detailed below-
 - a. Signal failure at Ballabgarh station due to track circuit failure and train passed at calling on signal no. C-143 and C-155 on UP line.
 - b. Gate signal of LC gate number 540 was double yellow due to flickering of the point on UP line.
 - c. Panel failure at Rundi station while returning from Agra to New Delhi.

Reliability of signals at high speed operation is paramount. Therefore following action should be taken:

 - a. Dual detection should be provided on main line for better reliability and safety.
 - b. LC gates on HDN routes should be eliminated on priority.
 - c. As per Para 7.8.9 IRSEM 2021, important minimum signalling features shall be ensured during train running.
- vii. Depth of wash-basin in washroom is very shallow and prone to splashing of water from tap. It should be made as per specified standard.
- viii. In case of emergency, passenger evacuation is through coach doors. As it is inconvenient to get down at ground level using steps and in case of emergency may lead to falling of passenger, Railways should study and make efforts to provide evacuation slides (similar to emergency exits in aircrafts) at doors which can be inflated in case of emergency to provide safe and faster passage for passenger evacuation.
- ix. The fixing of windows from outside maybe improved to make them flush with the shell of the coach for smooth feel and ease of cleaning.
- x. The interiors and furnishing items provided in the offered rake are a definite and visible improvement over the previous rake. However, there is still scope for improvement especially in the cab and driver desk area. Railway may engage an expert in the field of interior designing to further improve the interiors, overall look of the rake from outside, colour scheme, driver's cab to make the future rakes aesthetically pleasing and at par with the international standards.

Ans
8/9/2022



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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/20/BOXNS-22.9t-100-75

New Delhi, dated 07.09.2022

The Director General,
Research Designs & Standards,
Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of rolling stock Broad Gauge Bogie open wagon type 'BOXNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing No. WD-14014-S-01 Alt.9 or latest up to a maximum speed of 100 kmph in Empty and 75 kmph in Loaded condition over Indian Railways, by Zonal Railways

Ref: (i) CCRS office letter no. Q.12011/06/2022-23-T.W, dated 16.07.2022
(ii) RDSO's letter no. MW/SPD/BG/BOXNS, dated 02.05.2022
(iii) RDSO's Final Speed Certificate (FSC) no. MW/SPD/BG/BOXNS dated 27.04.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of rolling stock Broad Gauge Bogie open wagon type 'BOXNS' [Maximum Axle Load: 22.9t] to RDSO's Drawing No. WD-14014-S-01 Alt.9 or latest, up to a maximum speed of 100 kmph in Empty and 75 kmph in Loaded condition over Indian Railways, by Zonal Railways, with the following stipulations :

- Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MW/SPD/BG/BOXNS dated 27.04.2022, for operation up to a maximum speed of 100 kmph in Empty and 75 kmph in Loaded condition shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- The maximum length of wheel flat would be 50mm for 840mm diameter wheel.
- The condemning wheel diameter shall be limited to 800mm minimum to reduce the ill effect of the wheel and other wagon defect.
- Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- List of routes identified for 22.9t axle load shall be submitted to the Commission of Rail Safety before the start of actual operation of rolling stock.

2 07.09.22

- vi. The compliance of all the stipulations mentioned in Railway Board letter No. 2020/CE-II/TS/22.82 dated 20.08.2020 shall be ensured by the Railways.
- vii. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks.
- viii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
- ix. The WILD shall mandatorily be provided before introduction of wagon at speed above 60 Kmph. For speed up to 60 Kmph the WILD may be progressively installed. 100% weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.
- x. No overdue in track/rolling stock maintenance shall be permitted.
- xi. Right powering of loaded trains running with 22.9t axle load wagons shall be ensured.
- xii. Only wagons with twin-pipe brake system shall be permitted to run at 75 kmph and above. Air brake system of wagons with twin-pipe shall be in working order for operation at 75 kmph and above.
- xiii. USPD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present stipulation corresponds to 8 GMT).
- xiv. As per Clause 3.1.1.2.1 of RDSO's Final Speed Certificate MW/SPD/BG/BOXNS dated 27.04.2022, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5°C (Tm to Tm+5).

Further, as per clause 3.1.1.2.2 for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.

2 07.09.22
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/20/BOXNS-22.9t-100-75

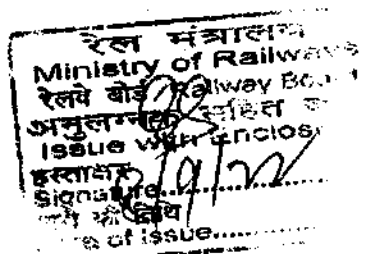
New Delhi, dated 07.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/06/2022-23-T.W, dated 16.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

2 07.09.22
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/17/WMDU-65

New Delhi, dated 06.09.2022

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

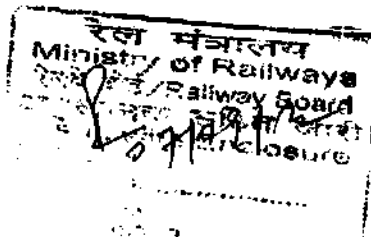
Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001.

Sub: Introduction of **Muck Disposal Unit, Model WMDU-65** supplied by M/s Ovis Equipment Private Ltd., Hyderabad to manufacturer's General Arrangement Drawing No. 453 20 00 00 Rev.1 [Transportation Code: MDWMDU65, Max. Axle Load: 22.5t] upto maximum speed of 65 kmph when running in train formation over Indian Railways, by Zonal Railways and over routes of Eastern Dedicated Freight Corridor (EDFC) & Western Dedicated Freight Corridor (WDFC) of DFCs by DFCCIL

Ref: (i) CCRS office letter No. Q.12011/29/2021-22-T.W, dated 03.06.2022
(ii) RDSO's letter no. TM/HM/11/54/MDU-OEPL, dated 28.02.2022
(iii) RDSO's Provisional Speed Certificate no. TM/HM/11/54/MDU-OEPL, dated 22.12.2021 and its Amendment no. 1 dated 22.04.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of **Muck Disposal Unit, Model WMDU-65** supplied by M/s Ovis Equipment Private Ltd., Hyderabad to manufacturer's General Arrangement Drawing No. 453 00 00 00 Rev.1 [Transportation Code: MDWMDU65, Max. Axle Load: 22.5t] up to maximum speed of 65 kmph when running in train formation over Indian Railways routes, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL with the following stipulations :

- Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/54/MDU-OEPL, dated 22.12.2021 and its Amendment no. 1 dated 22.04.2022 for operation up to a maximum speed of 65 kmph in train formation, shall be ensured on the Railway/DFCCIL while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCCIL. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
- It must be ensured that the loco, Ballast Cleaning Machine & Muck Disposal Units(MDUs) used in the formation clear the section after the block in one direction only



06.09.22

to avoid subsequent signal failure due to mismatch in axle counter at both the end of the block section

- iii. Railway shall ensure adequate brake pressure & its certification when MDU-65 (in consist of 5) is being hauled by loco/BCM.
- iv. Sensors for obstruction will apply brake in loco to stop hitting any structure, so MDU should in no case be moved with loose attachment without adequate brake pressure.
- v. Block Working Rule for this machine in Integrated Maintenance Block must be clearly stipulated at HQ level to ensure that there is no obstruction to adjacent line and proper clearance of block is confirmed at the time of cancellation of block.
- vi. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- vii. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
- viii. Any part which is meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kV AC OHE no parts of the vehicle should extend beyond the MMD envelope. Minimum electrical clearance as per SoD shall also be ensured
- ix. Muck Disposal Unit shall be maintained as per instructions laid down by RDSO.
- x. Maintenance staff engaged in under gear examination & maintenance must be trained in a Wagon Workshop to ensure trouble free service of the machine.
- xi. Track machine operators must also be properly trained in the operation of MDU before issue of "Competency Certificate" and record of training imparted to them be kept.
- xii. 25 kVA 'Danger Sign Board' on both sides of the machine must be made of retro reflective material.

06.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/17/WMDU-65

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/29/2021-22-T.W, dated 03.06.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track(M&Mc), Railway Board

06.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/17(1)/WMDU-65

New Delhi, dated 06.09.2022

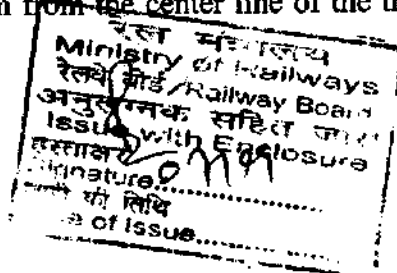
The Director General,
Research Designs & Standards,
Manak Nagar,
Lucknow-226011.

Sub: Future Improvement of Muck Disposal Unit, Model WMDU-65 supplied by M/s Ovis Equipment Private Ltd., Hyderabad [Transportation Code: MDWMDU65, Max. Axle Load: 22.5t], to manufacturer's General Arrangement Drawing No. 453 20 00 00 Rev.1

Ref: (i) Railway Board's letter No. 2022/CEDO/SR/17/WMDU-65 dated 06.09.2022
(ii) CCRS office letter No. Q.12011/29/2021-22-T.W, dated 03.06.2022
(iii) RDSO's letter no. TM/HM/11/54/MDU-OEPL, dated 28.02.2022
(iv) RDSO's Provisional Speed Certificate no. TM/HM/11/54/MDU-OEPL, dated 22.12.2021 and its Amendment no. 1 dated 22.04.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of **Muck Disposal Unit, Model WMDU-65** supplied by M/s Ovis Equipment Private Ltd., Hyderabad to manufacturer's General Arrangement Drawing No. 453 00 00 00 Rev.1 upto maximum speed of 65 kmph when running in train formation over Indian Railways routes, by *Zonal Railways* and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested **following measures for future improvement of the above rolling stock:**

- At present the stock is proposed to be operated at a speed of 65 Kmph based on the Provisional Speed Certificate issued by RDSO. Oscillation trial of the stock should be planned & conducted at the earliest and Final Speed Certificate issued to utilize its full speed potential.
- Hand operated hydraulic pump has been provided for retraction of discharge conveyor belt in case of failure of main engine. Feasibility of providing electrical pump may be explored in future design of the machine.
- Three locking pins without any indication have been provided to secure the discharge conveyor belt. Feasibility of providing suitable indication to show that the machine has actually been locked may be explored in future design of the machine.
- ACD sensors provided in the machine are designed to get activated when the obstacle is at a distance of 2.1m from the center line of the track. This range must be increased to 3m.



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v. A switch may be provided in the pendant for operation of the hooter

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

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(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/17(1)/WMDU-65

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/29/2021-22-T.W, dated 03.06.2022
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Track(M&Mc), Railway Board

७ ०६.०७.२२
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/21/MDUMFS120

New Delhi, dated 06.09.2022

The Director General
Research Designs &
Standards Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India [Unique Transportation Code: MDMFS120; Maximum Axle Load: 20.32t] to manufacturer General Arrangement Drawing No. SU126.40900.0.1, up to a maximum speed of 65 kmph when running in train formation as a dead vehicle over Indian Railways routes, by Zonal Railways and routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/10/2022-23-T.W, dated 16.07.2022

(ii) RDSO's letter no. TM/HM/11/36/MFS120, dated 01.06.2022

(iii) RDSO's Provisional Speed Certificate (PSC) no. TM/HM/11/36/MFS120, dated 21.02.2022 and its amendment no. 1 dated 20.06.2022

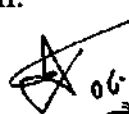
With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India [Unique Transportation Code: MDMFS120; Maximum Axle Load: 20.32t] to manufacturer General Arrangement Drawing No. SU126.40900.0.1, up to a maximum speed of 65 kmph when running in train formation as a dead vehicle over Indian Railways routes, by Zonal Railways and routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL, with the following stipulations :

- Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/36/MFS120, Dated 21.02.2022 and its Amendment no. 1 dated 20.06.2022 for operation up to a maximum speed of 65 kmph in train formation, shall be ensured on the Railway/DFCCIL while seeking the sanction of General Manager/MD/DFCCIL for introduction of rolling stock on the Railway/DFCCIL.

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रेल मंत्रालय
अनुमति
रेलवे बोर्ड
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2021/01

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- All the documents required for the sanction of General Manager/MD(DFCCIL) as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
- ii. It must be ensured that the loco, Ballast Cleaning Machine & Muck Disposal Units(MDUs) used in the formation clear the section after the block in one direction only to avoid subsequent signal failure due to mismatch in axle counter at both the end of the block section.
 - iii. Railway shall ensure adequate brake pressure & its certification when MDU Model-MFS120 is being hauled by loco/BCM.
 - iv. Sensors for obstruction will apply brake in loco to stop hitting any structure, so MDU should in no case be moved with loose attachment without adequate brake pressure.
 - v. Block Working Rule for this machine in Integrated Maintenance Block must be clearly stipulated at HQ level to ensure that there is no obstruction to adjacent line and proper clearance of block is confirmed at the time of cancellation of block.
 - vi. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
 - vii. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
 - viii. Any part which is meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kV AC OHE no parts of the vehicle should extend beyond the MMD envelope. Minimum electrical clearance as per SoD shall also be ensured.
 - ix. Muck Disposal Unit shall be maintained as per instructions laid down by RDSO.
 - x. Track machine operators must be properly trained in the operation of MDU before issue of "Competency Certificate" and record of training imparted to them be kept.
 - xi. 25 kVA 'Danger Sign Board' made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff.

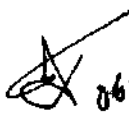
  06.09.22
 (गौरव)
 निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
 [Rly No. 030-47598, MTNL No.-011-23047598]
 e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/21/MDUMFS120

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/10/2022-23-T.W, dated 16.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track (M&Mc), Railway Board

  06.09.22
 (गौरव)
 निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

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Amrit Mahotsav

No. 2022/CEDO/SR/21(1)/MDUMFS120

New Delhi, dated 06.09.2022

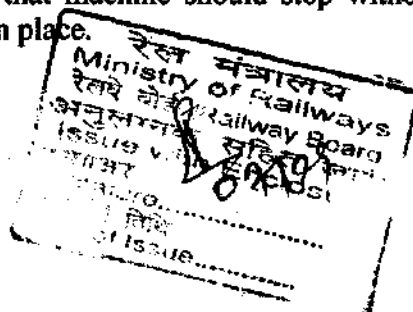
The Director General,
Research Designs & Standards,
Manak Nagar,
Lucknow-226011.

Sub: Future Improvement of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1

- Ref: (i) Railway Board's letter No. 2022/CEDO/SR/21/MDUMFS120 dated 06.09.2022
(ii) CCRS office letter no. Q.12011/10/2022-23-T.W, dated 16.07.2022
(iii) RDSO's letter no. TM/HM/11/36/MFS120, dated 01.06.2022
(iv) RDSO's Provisional Speed Certificate (PSC) no. TM/HM/11/36/MFS120, dated 21.02.2022 and its amendment no. 1 dated 20.06.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 up to a maximum speed of 65 kmph when running in train formation as a dead vehicle over Indian Railways routes by Zonal Railways and Eastern & Western Dedicated Freight Corridor of DFCCIL, by DFCs vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following measures for future improvement of the above rolling stock:

- At present the stock is proposed to be operated at a speed of 65 Kmph based on the Provisional Speed Certificate issued by RDSO. Oscillation trial of the stock should be planned & conducted at the earliest and Final Speed Certificate issued to utilize its full speed potential.
- ACD device provided in the machine is designed to get activated when it touches the obstacle. In order to ensure that no damage is occurred either to the obstacle or machine, it must be ensured that machine should stop without hitting any fixed structure once obstruction has taken place.



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- iii. Hand operated hydraulic pump has been provided for retraction of discharge conveyor belt in case of failure of main engine. Feasibility of providing electrical pump may be explored in future design of the machine

RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

02 06.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/21(1)/MDUMFS120

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/10/2022-23-T.W, dated 16.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track (M&Mc), Railway Board

02 06.09.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

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Amrit Mahotsav

No. 2022/CEDO/SR/22/SRGM-RGI-20

New Delhi, dated 06.09.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

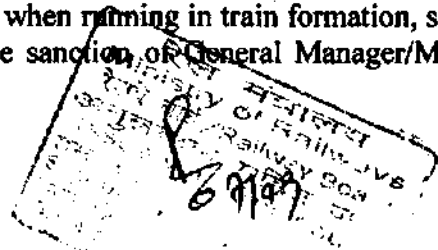
Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" [Unique Transportation Code : SRGRG120] supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 up to maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/09/2022-23-T.W, dated 29.07.2022
(ii) RDSO's letter no. DG/RDSO's letter No. TM/HM/11/52/SRGM-LORAM, dated 18.05.2022
(iii) RDSO's Provisional Speed Certificate No. TM/HM/11/52/SRGM-LORAM, dated. 04.02.2022 and its Amendment no. 1 dated 14.06.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" [Unique Transportation Code : SRGRG120] supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 up to maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL with the following stipulations :

- Observance of all conditions laid down in RDSO's Provisional Speed Certificate no. TM/HM/11/52/SRGM-LORAM, dated 04.02.2022 and its Amendment no. 1 dated 14.06.2022 for operation up to a maximum speed of 65 kmph when running on its own power as well as when running in train formation, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for



06.09.22

introduction of rolling stock on the Railway/DFCs. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure

- ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- iii. It shall be ensured that staff working with SRGM should wear protective gear such as Helmets, goggles. Reflective jackets, shoes etc.
- iv. Movement of any train with inflammable material shall not be permitted on the adjacent line where grinding work is being carried out.
- v. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
- vi. Any part which are meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25kV AC OHE such that no parts of the vehicle extend beyond the MMD envelop & also to ensure minimum electrical clearance as per SoD.
- vii. Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" shall be maintained as per instructions laid down in OEM's Manual.
- viii. Zonal Railway must prepare and issue a schedule for testing of safety related features such as Fire detection System, E-Stops, Brake Systems, Train Alert Buttons etc.
- ix. Four rachets have been provided for lifting the buggies in case of failure of hydraulic system. Two extra rachets should be provided as a standby arrangement to be used as a replacement in case of failure of existing rachets.
- x. During working of SRGM, it shall be ensured that all the earth bonds are maintained below the rail level as these may infringe the KLD cameras (Laser Camera) and grinding motors.

06.09.22
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निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/22/SRGM-RGI-20

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/09/2022-23-T.W, dated 29.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track(M&Mc), Railway Board

06.09.22
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



 भारत सरकार Government of India
 रेल मंत्रालय Ministry of Railways
 (रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/22(1)/SRGM-RGI-20

New Delhi, dated 06.09.2022

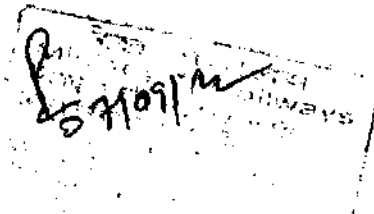
**The Director General,
Research Designs & Standards,
Manak Nagar,
Lucknow-226011.**

Sub: Future Improvement of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" [Unique Transportation Code : SRGRG120] supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953

- Ref:** (i) Railway Board's letter No. 2022/CEDO/SR/22/SRGM-RGI-20 dated 06.09.2022
 (ii) CCRS office letter No. Q.12011/09/2022-23-T.W, dated 29.07.2022
 (iii) RDSO's letter no. DG/RDSO's letter No. TM/HM/11/52/SRGM-LORAM, dated 18.05.2022
 (iv) RDSO's Provisional Speed Certificate No. TM/HM/11/52/SRGM-LORAM, dated. 04.02.2022 and its Amendment no. 1 dated 14.06.2022

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" [Unique Transportation Code : SRGRG120] supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 up to maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL vide RB's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested following measures for future improvement of the above rolling stock:

- i. Public address System (PA) should be provided in all the machines procured in future for effective & uninterrupted communication between operations present in grind car & camp coach.
- ii. Provision of smoke detectors at suitable locations and LHD (preferably optical fiber based) with set able temperature zone for alarm and tripping may be explored.
- iii. Cab of camp coach specially driver console may be redesigned for better space utilization and ease of operation by the operator.



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RDSO is requested to examine above and take necessary action. The compliance of the same should also be submitted to CCRS.

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निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/22(1)/SRGM-RGI-20

New Delhi, dated 06.09.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/09/2022-23-T.W, dated 29.07.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director Track(M&Mc), Railway Board

02 06.09.22

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निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



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अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 70/WDO/ORI/RO/1 Vol IV

New Delhi, dated 01.09.2022

The Chief Commissioner of Railway Safety,
Compound of DRM/NER,
Ashok Marg, Lucknow-226001.

Sub: Amendment in Rule-28 & 28A of Opening for Public Carriage of Passengers and
Policy Circular No.6

Ref: (i) CCRS office letter no. M.15013/01/2017-18-TW, dated 27.08.2022
(ii) Railway Board letter No. 70/WDO/ORI/RO/1 Vol IV, dated 22.08.2022
(iii) Railway Board Order No. ERB-I/2022/23/45 dated 14.06.2022

In continuation to Railway Board letter No. 70/WDO/ORI/RO/1 Vol IV, dated
22.08.2022 please find enclosed herewith the copy of EDs Committee report as desired.

2. The above EDs Committee report is submitted herewith for your kind perusal.

DA : as above

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(अजीत कुमार झा)
1.9.22

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01/09/2022

रेल मंत्रालय Ministry of Railways रेलवे बोर्ड / Railway Board अनुलग्नक सहित प्रेषित Issue with Enclosure हस्ताक्षर Signature जारी की तिथि Date of Issue

Note

No. 70/WDO/ORI/ROI Vol. IV

Dated: 30th Aug'22

Sub: ED Committee's Report on comprehensive review of all the business processes involved in introduction of Rolling Stock

1. Ministry of Railways (Railway Board) had constituted a committee vide letter No. ERB-1/2022/23/45 dt. 14.06.2022, to undertake a comprehensive review of all the business processes involved in introduction of Rolling Stock, duly taking a critical look of each stage.
2. The Committee consists of the following: -

i.	EDCE(G), Railway Board		Convener
ii.	EDME/Freight, Railway Board		Member
iii.	ED/Signal (Dev), Railway Board		Member
iv.	ED/Track Design-1, RDSO		Member
v.	ED/B&S, RDSO		Member
vi.	ED/Motive Power, RDSO		Member
3. The Terms of Reference of the Committee given are as under: -
 - a) To review the system of sanction for running of new Rolling Stock for rationalisation & expediting the process, duly ensuring safety aspects, in reference to Policy Circular No. 6 (Procedure for Certification of Maximum Permissible Speed for Rolling Stock and Introduction of Trains at Different Speeds).
 - b) To review the system of oscillation trials, including one time movement.
 - c) To examine issue of Group Speed Certificate on the basis of Axle load and sanction thereof.
 - d) To examine matter of sanction of existing Rolling Stock which are in service.
 - e) Any other system improvement to fast track & rationalise the entire process.
4. The above-mentioned issues have been deliberated by committee a number of times and consultations also held with various stakeholders.
5. Accordingly, Committee has made recommendations for change in Rule 28 & Rule 28A of 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 (as amended vide G.S.R. 945(E) of 01.10.2018) and Policy Circular No. 6 (2018), issued vide Board's letter No. 2018/CEDO/SR/PC-6/0 dated 31.10.2018. These recommendations are mentioned in subsequent pages, in the following sequence:



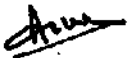


- a) Revised Rule 28 & 28A, incorporating the recommendations (Annexure-1, Pages 3-6)
 - b) Revised Policy Circular No.-6, incorporating the recommendations (Annexure-2, Pages 7-27)
 - c) Modification in Rule 28 & Rule 28A in Juxtaposition, with justification (Annexure-3, Pages 28-33)
 - d) Modification in Policy Circular No. 6 in Juxtaposition, with justification (Annexure-4, Pages 34-52)
6. The matter of rolling stock which are already in service but not having valid Railway Board sanction was also deliberated. It was noted that in such cases, earlier some Zonal Railways used to apply for Railway Board Sanction through CRS and CCRS but the procedure was not systematically followed in all cases. Taking into consideration that such rolling stock are already running over zonal railways for quite some time, it is recommended that a one time sanction be given by Railway Board on a single proposal of RDSO to regularize all such cases in one go.
 7. Committee also deliberated the issue of condonation of rolling stock to avoid repeated condonation of such infringements for new/ modified rolling stock which are already sanctioned by Railway Board for any other rolling stock.

Currently, for each individual type of rolling stock which infringes MMD of IRSOD, processing is done through CCRS for getting sanction of Railway Board for condonation of infringement, even if such infringement has already been condoned by Railway Board for other stocks.

Committee recommends that three different profiles (like MMD) for taking care of different types of dimensions of rolling stock i.e i) Rolling stock which will operate on normal IR routes on Pan India basis (maximum height- 4318mm) ii) Rolling stock which will operate on DSDC routes (maximum height- 4877mm) iii) Rolling stock which will operate on Double Stack Container routes (maximum height- 6827mm) shall be issued by RDSO and one time sanction shall be given by Railway Board. Rolling stock within this profile will not require sanction of condonation again.

It is also recommended that Railway Board stipulations given in letter no. 2001/CEDO/SR/14 dated 10.07.2001 and para no. 9 (4) of ED committee report circulated vide letter No. 2011/CEDO/SR/16/O dated 26.11.2012 in this connection be amended.


EDCE(G), RB


ED/Signal (Dev), RB


EDME/Freight, RB


ED/Track Design-1, RDSO


ED/B&S, RDSO


ED/Motive Power, RDSO

**Amendment in Rule 23 & 23A of Railways (Opening for Public Carriage of Passengers),
Rules, 2009 (as amended vide G.S.R. 945(E) of 01.10.2018)**

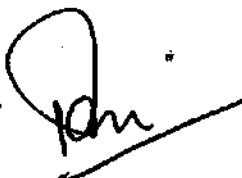
"23. Introduction of new types of locomotives or rolling stock:

- (1) The Research, Design and Standards Organisation shall apply, for introduction of new types of locomotives or rolling stock different from those already running on any section or division of railway administrations for use by any railway administration, to the Central Government through the Commissioner.
- (2) The application under sub-rule (1) shall be accompanied by—
 - (a) such diagrams as may be necessary to give full particulars of the axle loads, wheel spacing, length over buffers and other principal dimensions of the locomotive or rolling stock for which sanction is required;
 - (b) provisional speed certificate or final speed certificate, as the case may be, issued by the Research, Design and Standards Organisation; and
 - (c) the maximum number of motive power units or the maximum number of diesel/electric multiple units proposed to be coupled together for multiple operation shall be specifically mentioned.
- (3) The application shall be scrutinised by the Commissioner and his recommendations thereon shall be submitted to the Central Government for its orders.
- (4) No new type of locomotive or rolling stock which would cause stresses exceeding those specified in the IRS Bridge Rules, 1964 (latest), or the Standard Codes of Practice, or in the absence of any such reference, the design criteria approved by the Central Government for existing structures or excessive stresses in track shall be inducted until the sanction of the Central Government has been received through the Commissioner for doing so.
- (5) The Commissioner may, for permitting new designs of locomotives or rolling stock, require oscillation trials to be conducted and call for the records for his scrutiny.
- (6) A locomotive or rolling stock shall be considered *new*, if it is different from those already running on any section or division of railway administration:

Explanation:

A locomotive or rolling stock having larger principal dimensions/more infringements or different maximum design axle load or different maximum design track loading density or different basic bogie design or new design of braking system other than currently in use over IR or different kind of operation or different system of operation and control over the rolling stock or with proposed maximum speed more than the maximum speed of those stocks already running in the same category (Locomotives/ Trainset including EMU, MEMU / Coaches / Wagons / Track Machine/ Cranes / OHE Inspection Cars/ Any other category), shall be regarded as new rolling stock.

Provided that any change of internal layout of car body or minor modification in suspension system/ equipment layout of bogie design or minor change in principal dimensions shall not






be regarded as new rolling stock. A locomotive or rolling stock with such or any other minor changes shall be regarded as 'modified' (not 'new') and may be issued a separate transportation code by Railway Board, to differentiate it from already running locomotive or rolling stock.

- (7) Sanction for introduction of a locomotive or rolling stock which is not considered *new* and termed as 'modified', as per the criteria mentioned in para (6) above, shall be accorded by DG/RDSO, based on the Provisional/Final speed certificate issued by RDSO. While issuing sanction for such 'modified' locomotive or rolling stock, inclusion of conditions issued by Central Government in sanction letter of similar type, in same category, of locomotive or rolling stock, shall be duly considered.
- (8) In case of any difference of opinion in the Research, Design and Standards Organisation, whether or not any change or modification is to be regarded as a new rolling stock, the Research, Design and Standards Organisation shall, through the Commissioner, refer the matter to the Central Government for final decision thereon.

28A Use of new types of locomotives or rolling stock by railway administration-

- (1) The General Manager of a Government may sanction the use of any locomotive or rolling stock already introduced by the Central Government / DG RDSO under the provisions of rule 28, on any section or division of railway under his control.

Provided that the railway administration other than the Government railway shall require the approval of the Central Government through the Commissioner for use of any locomotive or rolling stock already introduced on Government railway by the Central Government/DG RDSO under the provisions of rule 28, on any section of railway under its control.

- (2) The proposal for sanction of the General Manager of a Government railway under sub-rule (1) shall be accompanied by-
 - (i) such diagrams as may be necessary to give full particulars of the axle loads, wheel spacing, length over buffers and other principal dimensions of the rolling stock for which sanction is required;
 - (ii) the provisional speed certificate or final speed certificate, as the case may be, issued by the Research, Design and Standards Organization;
 - (iii) the sanction of the Central Government /DG RDSO for introduction of the locomotives or rolling stock;
 - (iv) the calculations and stress sheets showing-
 - (a) the conclusions arrived at;
 - (b) the external forces on which the stress calculations are based;
 - (c) the stresses which will be produced in the various bridges over which the proposed locomotive or rolling stock will run; and
 - (d) the effects which the said locomotive or rolling stock will have on various structures or tracks as compared with those caused by locomotive or rolling stock already in use, or allowed by the existing Government orders.

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Provided that the calculations and stress sheets under this clause must show as to what allowance has been made for any secondary or deformation stresses in addition to the primary stresses caused by external forces and what relief of stress, if any, has been included;

- (v) the cost of modification to signalling and telecommunication installations necessitated by the use, if any, of chopper or thyristor control systems;
- (vi) an approximate estimate of the cost of such improvements in existing structures or track as the use of the proposed locomotive or rolling stock is likely to render necessary on the concerned railway, whether immediately or in the near future; and
- (vii) a certificate signed by the Chief Engineer, the Chief Mechanical Engineer and the Chief Electrical Engineer (for electric stock) of the concerned railway in the following Form, namely:—

CERTIFICATE

Certified that it is safe to run _____ (particulars of locomotive or rolling stock proposed to run) not exceeding _____ units (in the case of locomotive) coupled together on the section _____ (station) to _____ (station) from _____ (km) to _____ (km) of the _____ Railway at a maximum speed of _____ (km/h) against a maximum speed of _____ (km/h) certified by Research, Design and Standards Organization, subject to the following speed restrictions and conditions:—

(a) Speed restrictions:— Sl. No. From km to km Nature of speed restriction Brief Reason for restriction

(b) Special Conditions— 1 2 3 4 To be signed by— 1. The Chief Mechanical Engineer..... 2. The Chief Engineer..... 3. The Chief Electrical Engineer..... 4. The Chief Signalling and Telecommunications Engineer..... 5. The Chief Operating Manager.....

Note 1.— The Chief Operating Manager and the Chief Signalling and Telecommunications Engineer should be associated when the increase in the speed of a locomotive or rolling stock is contemplated over the maximum sanctioned speed for a specific category of train (passenger or goods) over a particular section of the railway.

Note 2.— Over the railways where both the shop maintenance and open line maintenance of electric locos and electrical multiple unit rolling stock are under the control of the electrical department only, the Chief Electrical Engineer, otherwise the Chief Mechanical Engineer shall also sign. Note 3.— When Motive power with chopper control is to be used, the Chief Electrical Engineer and the Chief Signalling and Telecommunication Engineer shall sign this certificate.

- (3) The Certificate referred to in clause (vii) of sub-rule (2) shall indicate — (a) clearly that the speed certified does not exceed the limits laid down by the Research, Designs and Standards Organisation; and (b) Specifically the maximum number of motive power units proposed to be coupled together for multiple operation.
- (4) The General Manager of the Government railway shall communicate the sanction to the Commissioner for his information ten days in advance of the actual use of locomotive or rolling stock over the railway.

Signature *Signature* *Signature*

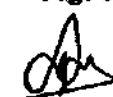
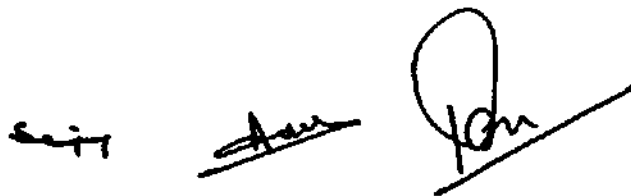
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- (5) If infrastructure and operating conditions, for a new/modified locomotive or rolling stock, as specified in the Provisional or Final Speed Certificate issued by RDSO, are same as that for any other locomotive or rolling stock already running on the Railway, process mentioned in para (2) for sanction of General Manager shall not require to be followed.

Instead, in such cases, only a notification (which will be considered at par with the sanction) shall be issued by the General Manager that permission is given for use of this Locomotive or Rolling Stock on the Railway on the same infrastructure and operating conditions as already notified for such -and- such locomotive or rolling stock. This notification shall be sent to the Commissioner for his information ten days in advance of the actual use of locomotive or rolling stock over the railway.

- (6) The provisions of this rule shall, mutatis mutandis, apply to every proposal of a railway administration other than Government railway for seeking approval of the Central Government through the Commissioner, for the use of any locomotive or rolling stock already introduced on Indian railway by the Central Government /DG RDSO under the provisions of rule 28, on any section of railway under its control.



Amendment in Policy Circular No.6**Policy Circular No. 6 (Revised 2022)**

To lay down procedure for introduction / use of new locomotive or rolling stock, introduction of new trains, increase or decrease in speed of existing trains/ rolling stock etc., following directives are issued for compliance of all concerned: These directives shall be applicable to all locomotives or rolling stocks, other than pre-IRS stock and supersedes all previous instructions on the subject.

1. Authority for Introduction of New Locomotive or Rolling Stock

Central Govt. (Railway Board) is the final authority to introduce a new locomotive or rolling stock under Section 27 of "The Railways Act, 1989".

2. Use of Rolling Stock Already Sanctioned by Central Government (Railway Board)/ DG (RDSO) or Running on Any Section(s) of Railway

- 2.1. In the case of locomotive or rolling stock already sanctioned by Central Govt. (Railway Board)/ DG (RDSO) or running on any section(s) of any Railway, the same can be used over zonal railway with the approval of General Manager following the procedure given in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. The Safety Certificates which should accompany Joint Safety Certificate (JSC) (Annexure D) are at Annexures A, B and C. The Proforma for sanction to be given by GM is at Annexure F.

3. Determination of Speed of New/Modified Design of a Locomotive or Rolling Stock

3.1. Determination of Provisional Speed

- 3.1.1. The provisional maximum permissible speed for new/modified design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, on the basis of design features, simulation study & data and where appropriate, on comparison of the performance of similar designs of locomotives or rolling stocks already in service.

- 3.1.2. The provisional speed will normally be lower than the designed or projected service speed of the stock, and, shall not be more than the following:

- 80 km/hr for Broad Gauge passenger stock
- 65 km/hr for Broad Gauge goods stock
- 60 km/hr for Metre Gauge passenger stock
- 45 km/hr for Metre Gauge goods stock
- 35 km/hr for Narrow Gauge stock

- 3.1.3. However, in respect of such locomotive or rolling stock, which is regarded as 'modified' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time', provisional speed mentioned in para 3.1.2 above can be increased by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, as under:

- 105 km/hr for Broad Gauge passenger stock
- 75 km/hr for Broad Gauge goods stock

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- 75 km/hr for Metre Gauge passenger stock
- 50 km/hr for Metre Gauge goods stock
- 40 km/hr for Narrow Gauge stock

The above speed limits can further be increased up to the same speed as that permitted for the stock already in service after one year by ED Standards/Motive Power/RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates, in case no adverse report on the running performance of locomotive or rolling stock, is received by RDSO.

- 3.1.4. The validity of provisional speed certificate shall be five years for departmental stock and three years for locomotive or rolling stock other than departmental stock, except when it is superseded by final maximum permissible speed certificate.

3.2. Determination of Final Maximum Permissible Speed

- 3.2.1. The final maximum permissible speed for new/modified design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power), RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates. In case of any dispute, the matter shall be referred to railway board for deliberations among concerned technical members and final orders.

- 3.2.2. The final maximum permissible speed of new/modified design of a locomotive or rolling stock shall be determined after due consideration of the services to be performed, comparison with the similar stock already in service, and on the basis of detailed Oscillation Trials for assessing the riding quality and/or stability.

- 3.2.3. However, in respect of such locomotive or rolling stock, which is not 'new' and regarded as 'modified' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time', detailed Oscillation Trials may be dispensed with, by ED Standards (Motive Power) RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates under following conditions:

If there is change of axle load up to + 2%, - (within range of empty and loaded condition of similar stock), or change of track loading density up to + 2%, -100% or change in unsprung mass up to $\pm 5\%$, or change in principal dimensions (Length, Width and Height) up to +5%, -2% within MMD, or change in center of gravity upto +2%, -10% with respect to any similar stock within same category (as defined in para 3.3.1.1) already running over Indian Railways provided there is no change in suspension system or no change in bogie design affecting the riding behavior of rolling stock.

In case of difference of opinion, the matter shall be referred to the Central Govt. (Railway Board) for deliberations among concerned technical members and final decision.

- 3.2.4. The test stretches for conducting oscillation trials shall be advised by Executive Director Standards (Track Machines & Monitoring) as per stipulations of Standing Criteria Committee.

- 3.2.5. For carrying out tests on new/modified locomotive or rolling stock, where speeds in excess of the provisional / proposed final maximum permissible speed will be attained, Executive Director Standards (Motive Power) shall determine in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures), the increments of test speeds from the provisional / proposed final maximum permissible speed and also the maximum test speed, on the basis of the design features, data and other information furnished by the head of the Locomotive / Rolling Stock Design Directorate concerned and the particulars of track and bridges available in the section.

- 3.2.6. For conducting trial, on the advice of the RDSO to test a new/modified locomotive or rolling stock, General Manager of the concerned railway shall allow conducting the trials on their system, on the

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test section identified by RDSO, after considering the joint safety certificate duly signed by the Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer (*Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section*).

- 3.2.6.1. Alternatively, standing sanction of General Manager with validity of 2 years may be issued for a particular axle load and speed on a specified test section after following the above procedure for conducting trials of rolling stocks or locomotives having such axle load and speed not exceeding the values indicated in the standing sanction. Separate standing sanctions may be required for different type of rolling stock i.e. Coaches/ EMU/ MEMU/ DMU/ Train set, Wagon and Departmental vehicle etc., or Locomotive to accommodate various boundary parameters.

Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structure) and other concerned directorates will issue a Generic Oscillation Trial Speed Certificate to the Zonal Railway, duly including all the boundary conditions for trial, for processing of the standing sanction.

Based on the standing sanction of GM and generic oscillation trial speed certificate, a supplementary speed certificate for conducting the trial of particular locomotive or rolling stock would be issued by Executive Director Standards (Motive Power) in consultation with the design directorate only, who would keep the other concerned directorates apprised of issuance of such a supplementary speed certificate for a particular rolling stock / locomotives as per provision of para 3.2.5.

- 3.2.7. Since stipulations in the Speed Certificate issued by RDSO for conducting trials shall be about standard design/ structure of track and bridges, as such, if the conditions on the test section are different, the maximum speed which can be permitted over such stretches shall be determined by the Railway in consultation with RDSO, if so considered necessary.
- 3.2.8. The Commissioner of Railway Safety shall be kept advised of the programme for detailed Oscillation Trials along with all relevant technical data including speed specified by RDSO for trials, copy of sanction letter issued by GM and other relevant details, by Zonal Railway, to enable him to witness the trials, if he so desires.
- 3.2.9. The detailed Oscillation Trials shall be conducted by Executive Director (Testing) in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track), Executive Director (Bridges & Structure) and the head of the concerned Locomotive/Rolling Stock Directorates.
- 3.2.10. The evaluation of detailed Oscillation Trials data shall be done by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure), who can order re-trials and suggest modifications, if necessary. In the evaluation of the detailed Oscillation Trials data for riding stability, ED Standards (Motive Power) will be guided generally by the extant recommendations of the Standing Criteria Committee.
- 3.2.11. GM sanction for such trials shall be valid for two years, after which it shall require revalidation by the General Manager on the advice of RDSO. With regard to a stock already operating on provisional speed certificate, while revalidating the permission for oscillation trial, any adverse performance or special observations made during service, if any, shall be commented upon.
- 3.3. **Issuance of Speed Certificate**
- 3.3.1. The Speed Certificates - both provisional and final for new/modified design of a locomotive or rolling stock, shall be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates. In case of any dispute, the matter shall be referred to Central Govt. (Railway Board) for deliberations among concerned members and final decision.

- 3.3.1.1. Alternatively, generic final speed certificates for different category of new / modified locomotives or rolling stock (Trainset including EMU, MEMU/ Coaches/ Wagons/ Track Machine/ Cranes/ OHE Inspection Cars/ any other category), may also be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structure) and other concerned directorates, duly including all the boundary conditions related to track, bridges, signaling and rolling stock for each group. Any new / modified rolling stock qualifying the generic final speed certificate will be added as annexure by amendment to respective generic final speed certificate by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates.
- 3.3.2. The above mentioned certificates shall invariably indicate whether such locomotive or diesel/electric multiple units may be used in multiple operations and if so, the maximum number of locomotives or diesel/electric multiple units that may be coupled together as well as the special conditions, if any to be satisfied in regard to track and bridges, before permitting such operation.
- 3.3.3. If for the operation at the final maximum permissible speed, any improved standard of maintenance of rolling stock, track, bridges, signaling, OHE etc. is called for, the same shall be mentioned in the respective type of Speed Certificate.
- 3.3.4. Amendment issued by RDSO to the respective type of speed certificate of a particular locomotive or rolling stock will not require fresh sanction of Railway Board, if the amendment does not come under the category of 'New' rolling stock as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.
- 3.4. **Movement of a New/Modified Designed Locomotive or Rolling Stock**
- 3.4.1. The maximum permissible speed for the limited purpose of movement of new/modified design of locomotive or rolling stock from the manufacturer's works/docks to destination or to the testing point or from the destination/testing point back to manufacturer's works shall be determined and certified by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures) and other concerned Directorates. The speed for this purpose shall not be higher than the provisional speed determined by RDSO.
- 3.4.2. Based on design parameters of any new/modified locomotive or rolling stock (Coaches/ EMU/ MEMU/ DMU/ Train set, Wagon and Departmental vehicle etc.), a one-time movement speed certificate shall be issued by RDSO, duly stating its similarity with existing stock already running on IR and route through which movement is to be done. On the basis of speed certificate issued by RDSO, movement of locomotive or rolling stock can be done by the respective railway after certification by Chief Bridge Engineer of respective railway for non-standard/ special bridges.
- 3.4.2.1. However, if a new/modified rolling stock infringes the MMD of Indian Railway Schedule of Dimensions, in addition to procedure outlined in para 3.4.2, railway shall ensure the movement of such rolling stock as per respective class of ODC in terms of Railway Board's letter no. 2014/CEDO/SR/04 dated 20/10/2014 as amended from time to time. However, if the infringement of a new/modified locomotive or rolling stock is equal or less as similar stock defined in para 3.4.2 above, in that case movement shall be governed by the conditions stipulated for the similar locomotive or rolling stock already running on the Railway.
- 3.4.3. In case it becomes necessary to move locomotive or rolling stock attached to a passenger carrying train, sanction of the Commissioner of Railway Safety shall be taken.
- 3.4.4. For each single movement of any other rolling stock not covered above, joint safety certificate shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer (Principal Chief

Electrical Engineer also in case of locomotive or involvement of electrified section) and submitted to CRS for his permission. CRS while permitting such movement may impose any special stipulations as deemed necessary for such movement.

4. Reducing the Speed of Existing Locomotive or Rolling Stock and Restoring the Same

- 4.1. In the event of adverse report on riding characteristics of locomotive or rolling stock already certified or on its adverse effects on track or bridges, the Zonal Railway Administration shall immediately impose a speed restriction under advice to RDSO and Commissioner of Railway Safety. Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and the concerned Executive Directors shall further reduce the speed, if considered necessary for safe operation, pending further investigations.
- 4.2. Removal of the speed restriction and determination of the final maximum permissible speed shall be done by Executive Director Standards (Motive Power) on the basis of investigations, which may include detailed Oscillation Trials on the locomotive or rolling stock, as existing and as modified to improve its riding and stability characteristics. Executive Director Standards (Motive Power) shall then certify the final maximum permissible speed in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and other concerned Directorates.
- 4.3. Whenever the Commissioner of Railway Safety considers that the maximum permissible speed of a stock already certified requires restriction on any section or sections of the Railway, he shall immediately instruct the Railway Administration/s to impose the speed restriction and report the matter in detail to the Chief Commissioner of Railway Safety. The Railway(s) shall promptly act on the Commissioner of Railway Safety's instructions, pending review. Railway, in turn, shall also report the same to ED/Motive Power/RDSO.
- 4.4. RDSO shall seek the fresh approval of Central Govt. (Railway Board) for restoring the prescribed maximum permissible speed after giving effect to such modifications, as may be stipulated, following the same procedure as being followed for introduction of a new locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.

5. Increasing the Speed of Existing Locomotive or Rolling Stock by Making Improvements

- 5.1. Where trial fittings are introduced on existing locomotive or rolling stock or on stock obtained on a repeat order, with the prime objective of improving the riding characteristics, both at existing speeds and/or higher speeds and the locomotive or rolling stock is not covered in the definition of similar stock, the maximum permissible provisional/final speed of the locomotive or rolling stock concerned shall be decided following the same procedure as being followed for introduction of a new / modified locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.

6. Introduction of Passenger Trains on Specific Route

6.1. General Principles

- 6.1.1. Train for introduction in a section shall consist of only coaches, locomotive/s and train sets including EMU/MEMU/DEMU etc., which have approvals of the Central Govt. (Railway Board)/ DG (RDSO) for running at proposed maximum speed of train or higher, as per 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'.
- 6.1.2. Trains will be introduced in the sections at speeds as per provision of General Rules 1976 - Rule 4.08 1(a).

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- 6.1.3. Irrespective of speed of train, introduction of a passenger train having 24 coaches or more plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or, 22 coaches or more plus one inspection carriage (LHB or other types)/other non-passenger carrying coach (LHB or other types), in a section, shall require prior approval of General Manager. The General Manager shall ensure availability of full train length of Examination Pits at terminal stations of the train, full length of Platforms with adequate lighting arrangement at the stopping stations, and en-route coach watering facility for full length of train, before introduction of train.

Provided further, introduction of subsequent trains with same or less number of coaches, having same terminal stations and stopping stations, shall not require approval of General Manager.

- 6.1.4. Length of any passenger train shall not be increased beyond 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB type) /other non-passenger carrying coach (LHB or other types) in any case without prior approval of Central Govt. (Railway Board).

- 6.2. For speed up to & including 110 km/hr on BG, upto & including 75 km/hr on MG

- 6.2.1. Trains can be introduced by zonal railway following general principles given in para 6.1 above.

- 6.3. Deleted

- 6.3.1. Deleted

- 6.4. For speed above 110 kmph and up to & including 120 kmph on BG

- 6.4.1. For such trains, zonal railway shall carry out the "Route Proving Run" with representative coaches of all types and locomotive to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such route proving run, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types), but not less than 18 representative coaches in any case.

- 6.4.1.1. For conducting route proving run, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive).

- 6.4.1.2. For conducting route proving run, personal approval of Principal Chief Engineer shall be taken, who shall grant the same after ensuring that the track is being maintained as per standards specified in Indian Railway P.Way Manual.

- 6.4.1.3. Deleted.

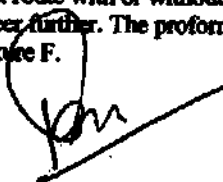
- 6.4.1.4. During route proving run, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the route proving run should satisfy the stipulated criteria as given in Appendix-1. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, route proving run should invariably be repeated.

- 6.4.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting route proving run along with all relevant details including copy of Principal Chief Engineer sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.

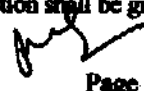
- 6.4.2. Subject to compliance of para 6.1 and 6.4.1 & its sub paras above, Principal Chief Engineer shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by Principal Chief Engineer further. The proforma on which sanction shall be given shall be on same lines as placed at Annexure F.









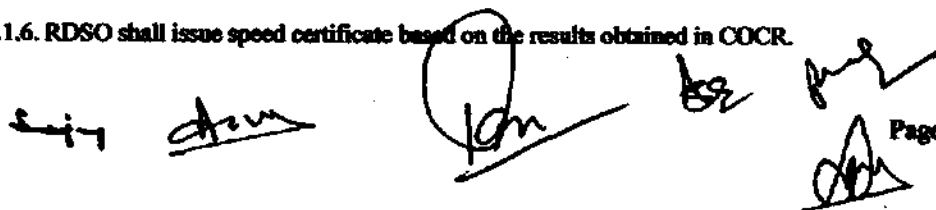




- 6.4.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types)], having same type of coaches and locomotive for which route proving run has been successfully carried out (either in one route proving run or in different route proving runs), shall also require approval of Principal Chief Engineer (not to be delegated further), but, there is no need to repeat route proving run and signing of JSC again.
- 6.5. For speed above 120 kmph and upto & including 130 kmph on BG
- 6.5.1. For introduction of first train in a section at speed above 120kmph and upto & including 130kmph, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types) / other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.
- 6.5.1.1. For conducting COCR, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also ensure that the track is being maintained as per standards specified in Indian Railway P. Way Manual.
- 6.5.1.2. For conducting COCR, personal approval of General Manager shall be taken.
- 6.5.1.3. Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of Principal Chief Engineer, in place of COCR, can be resorted to for new/ modified/ existing locomotive or partial replacement of new/ modified/existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s in/are already running at a speed above 120 kmph. However, Route Proving Run shall not be required for modified/ existing rolling stock for which detailed Oscillation Trials had been dispensed with earlier in such cases.
- 6.5.1.4. During COCR, the train should run at maximum permissible speed for at least 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analysed by RDSO in terms of stipulated criteria given in para 3 of Appendix-1 and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.
- 6.5.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR/Route Proving Run along with all relevant details including copy of GM sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.
- 6.5.1.6. RDSO shall issue speed certificate based on the results obtained in COCR.
- 6.5.2. Subject to compliance of para 6.1 and 6.5.1 & its sub paras above, General Manager shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by General Manager further. The Proforma on which sanction shall be given shall be on same lines as placed at Annexure-F.

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- 6.5.3. For trains having new/ modified type of Coaches/Locomotive, for which COCR has not been carried out earlier, RDSO will identify representative section of minimum 500km length on IR, where COCR shall be carried out by RDSO as per para 6.5.1 above at desired speed. Representative section for conducting COCR shall be advised by Executive Director Standards (Track Machines & Monitoring). Based on COCR, RDSO will issue a final speed certificate valid over IR, which will include special precautions, if any, to be taken by Zonal Railways. On the basis of this speed certificate, Zonal Railways will be able to introduce such trains having new/ modified type of Coaches/Locomotive on their Railway with the approval of Principal Chief Engineer in the sections where train/s is/are already running at a speed above 120kmph. There is no need to repeat COCR in each Railway.
- 6.5.4. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains *up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.5.1 above*, having same type of coaches and locomotive for which COCR/Route Proving Run(RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs on respective section of Zonal Railway or representative track), shall require approval of Principal Chief Engineer (not to be delegated further), and there is no need to repeat COCR/RPR and signing of JSC again.
- 6.6. For Speed above 130 kmph on B.G., above 75 kmph on M.G
- 6.6.1. For such trains, RDSO shall carry out COCR with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased, up to that number of coaches only.
- 6.6.1.1. For conducting COCR, Joint Safety Certificate (JSC) shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also certify that the track is being maintained as per standards specified in Indian Railway P. Way Manual.
- 6.6.1.2. For conducting COCR, prior permission from CRS shall be taken.
- 6.6.1.3. The COCR shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.
- 6.6.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO in terms of stipulated criteria given in para 3 of Appendix-1 and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.
- 6.6.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR along with all relevant details including copy of CRS sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.
- 6.6.1.6. RDSO shall issue speed certificate based on the results obtained in COCR.



- 6.6.2. Subject to compliance of para 6.1 and 6.6.1 & its sub paras above, General Manager shall approach Central Govt. (Railway Board) through CRS and CCRS for permitting operation of first train on that route. The CRS recommendation shall be on proforma placed at Annexure E.
- 6.6.3. For, up to speed of first train as mentioned in para 6.6.2 above, introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains *[up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.6.1 above]*, even if having same type of coaches and locomotive with which COCR has been successfully carried out (either in one COCR or in different COCRs), railway shall approach Commissioner of Railway Safety for permission. However, there is no need to repeat COCR and signing of JSC again.
- 7. Special Trials and Conditions of Operation**
- 7.1. Sometimes trains have to be run under special conditions, which are not encountered in normal operation. Many a times, trials may be required to establish the feasibility of such operation. Such operation and trials shall be governed by the stipulations, as given in Appendix-2.
- 8. Maximum Speed for Trials**
- 8.1. The maximum speed for different type of trials shall be as under:
1. Detailed Oscillation Trials: 10% in excess of the proposed final maximum permissible speed, except on curves where it will be governed by the provisions of IR Permanent Way Manual.
 2. Route Proving Runs/ COCR: Same as the maximum permissible speed for the train.
 3. Emergency Braking Distance, Rating and Performance, Coupler Force and Signal Interference trial: Same as the maximum permissible speed for the train.
 4. The speeds mentioned above will have a tolerance of +5 kmph and -2 kmph except for RPR/COCR for which tolerance of ± 5 kmph will be permitted.
- 9. New or Modified Rolling Stock**
- 9.1. A new or modified rolling stock in the context of this Circular would be as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. Decision in this regard shall be taken by the head of concerned Locomotive / Rolling Stock Directorate in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track) and Executive Director (Bridges & Structures). In taking such decision, the head of concerned Locomotive / Rolling Stock Directorate shall be guided by the criteria laid down for this purpose by RDSO's Standing Criteria Committee. In case of any difference of opinion, the matter shall be referred to Central Govt. (Railway Board) through CCRS for final decision.
10. In zonal railway, JSC shall be signed following Railway Board letter No. 2018/CEDO/SR/PC 6/JSC, dated 20.08.2018 as amended from time to time, copy placed as Annexure G.
11. In case of any dispute between zonal railway and CRS on any matter, the dispute shall be resolved following Railway Board instructions issued vide letter No. 70/WDO/ORI/1/Vol. V, dated 31.05.2018, copy placed as Annexure H.

Enclosure: Appendices - 1 to 2 and Annexures - 'A' to 'H'

[Handwritten signatures and initials]

Guidelines for Route Proving Runs for Speed above 110 kmph and upto & including 120 kmph on BG by Zonal Railways

1. Introduction:

Zonal Railways shall conduct Route Proving Runs for speeds above 110 kmph and upto 120 kmph on BG, with the help of portable accelerometers (such as OMS-2000). Following guidelines are to be observed while conducting these runs:

2. Requirements

- 2.1 **Track:** The track on the route should be maintained to standards specified in Indian Railway P. Way Manual. Acceleration in two directions lateral & vertical shall be recorded by portable accelerometers and action taken to attend track accordingly as per provision of Indian Railway P. Way Manual in case of any deficiency.
- 2.2 **Rolling Stock:** The proposed Diesel/Electric Loco, Coach to be run should be cleared for operation at proposed or higher speed.
- 2.3 **Portable accelerometer** shall be placed as near as possible to the leading pivot in case of locomotive. In other representative rolling stock, the Portable Accelerometer would be placed as near as possible to the pivot of the trailing bogie.
In case of diesel locomotive, the short-hood shall be kept in leading position.
- 2.4 The wheels of the loco and coaches to be used should have only normal wear.
- 2.5 Portable accelerometer shall have arrangements for recording the acceleration in two directions, i.e. vertical and lateral, in working order.
- 2.6 Instructions regarding Operation and calibration of the equipments are available in the report titled, "Specification and Manual for Calibration of OMS-2000" issued by RDSO under covering letter no. RT/UGTRC/OMS/General, dated 31.5.1994.

3. Criteria for Clearing the Route

- 3.1. Vertical and lateral accelerometer records, obtained by portable accelerometer, shall be closely analyzed. Acceleration peaks observed in the cab of loco at the proposed speed should be counted.
- 3.2. Following criteria shall be used for clearing the route for operation at the proposed speed.

For Coaches: The average number of peaks of vertical and lateral accelerations exceeding 0.20g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each representative coach. However, the number of peaks in any kilometer shall not exceed 1, and where this value is exceeded, the track shall need attention.

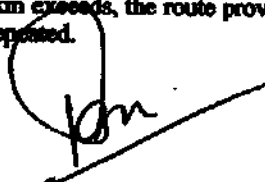
In case the limit of 0.25 peak/km exceeds, the route proving run of the representative coach(es) for which the limit has been exceeded, would be repeated.

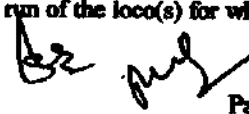
At location, where the peaks of lateral and vertical accelerations exceed the Urgent Maintenance Limits stipulated in IRPWM, the track shall have to be attended urgently.

For Locomotives: The average number of peaks of vertical and lateral accelerations exceeding 0.30g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each loco. However, the number of peaks in any kilometre shall not exceed 1, and where this value is exceeded, the track shall need attention.

In case the limit of 0.25 peak/km exceeds, the route proving run of the loco(s) for which the limit has been exceeded, would be repeated.

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At location, where the peaks of lateral and vertical accelerations exceed 0.35g, the track shall have to be attended to urgently.

- 3.3. Route Proving Run Report should also cover presence/absence of resonance tendency on bridges falling on the route.



Special Trials and Conditions of Operation

1. Heavy Haul / Long Haul and Running of Goods and Passenger Trains with Special Configuration on Specified Routes

For ascertaining suitability of such operation of goods and passenger trains, which is not very common, studies and trials may be necessary. On a reference from a Zonal Railway, RDSO shall examine and issue suitable guidelines for operation, based on the experience and results of trials undertaken elsewhere in the past. However, when adequate data is not available and trial is considered necessary, speed certificate shall be issued for carrying out trials. GM shall permit such trials, but, CRS's approval for such trials is not necessary. After trials, a copy of the report and necessary guidance for operation shall be sent by RDSO to the Railway.

2. Emergency Braking Distance (EBD) Trials for New/Modified Type of Rolling Stock

Such trials may be necessary for heavy haul / Long Haul, goods and passenger trains with new/ modified type of locomotives and rolling stock. In every case of introduction of new / modified rolling stock, a field trial shall always be carried out to arrive at the Emergency Braking Distance. In case of existing stock, a computer simulation shall normally be adequate for arriving at emergency braking distances. However, when the train speeds involved are above 130kmph for passenger, and above 80 kmph for goods trains, the results of computer simulation shall invariably be validated by actual field trials.

In case, actual trials are necessary, Speed Certificate shall be issued by RDSO. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such trials in passenger running lines. Such trials shall not be required for each composition of rolling stock in train. Once adequate trials data is available, the same can be made use of for future references.

To avoid repetitive EBD trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).

3. Coupler Force Trials

For heavy haul / Long haul and long passenger trains, such trials may be necessary when there is a change in the mode of operation from the established pattern. GM shall permit such trials, but CRS approval is not required. CRS shall however, be kept informed in advance about the programme for carrying out such trials in passenger running lines.

To avoid repetitive Coupler Force trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). Similarly for freight stocks, trial shall be carried out with maximum trailing load to avoid trials with lesser trailing load.

4. Rating, Performance and Adhesion Trials

These trials are done for new / modified locomotives and other motive power to establish its characteristics. Speeds, at which these trials are required to be conducted, are separately established by detailed oscillation trials. GM shall permit such trials, but, CRS's approval is not required for such trials.

5. Signal Interference Trials

These trials may be necessary while introducing new / modified Electric Rolling Stock, which are likely to affect the signalling. Before permitting such Electric Rolling Stock in operation, if necessary, on account of introduction of new propulsion technology or on account of substantial

increase in power rating of the rolling stock, harmonic levels shall be thoroughly examined and established by conducting trials upto maximum permissible rating of Electric Rolling Stock. GM shall permit such trials, but, CRS approval is not required for such trials.



 Page 19 of 52


Annexure 'A'

Track Certificate
(To accompany application)

I do hereby certify that the track on section _____ (station _____ to station _____) from km _____ to km _____, the * weakest portion of which consists of _____ kg rails _____ metres long each with a maximum wear of _____ % on _____ sleepers of density _____ and minimum depth of _____ mm ballast cushion below sleepers out of which _____ mm minimum of clean ballast exists under sleepers on consolidated and stable formation is to the required strength which can safely take _____ rolling stock (brief description) ** upto _____ tonnes axle load at a maximum speed of _____ kmph, subject to the local speed restrictions noted below -

SL	From Km	To Km	Between Stations	Nature of Speed Restriction	Brief Reasons For Restrictions

By, Chief Engineer (Track)

Countersigned by:

Chief Engineer / Chief Track Engineer

Note

- * The weakest portion on which no speed restriction has been imposed only needs to be given.
- ** The maximum number of locomotives proposed to be coupled together for multiple operations shall be specifically mentioned.

Signature:     



Annexure 'B'

Bridge Certificate
(To accompany application)

1. Certified that the bridges on Section (station) _____ to _____ (station) from km _____ to km _____, the minimum strength of superstructure being _____ % of RBG/MG, ML standard as per Bridge Rules 1941/1964 revised, corrected upto and inclusive of _____ Correction Slip No. _____, dated _____ are safe to carry _____ (Rolling stock) not exceeding _____ units (in the case of locomotive) coupled together, at a maximum speed of _____ kmph, subject to the following restriction:

SL	Bridge No.	Location Km	Spans & Description	Nature of Restriction	Brief Reasons

2. Sub-structures of all the bridges are in satisfactory condition and safe to carry the above rolling stock at the speed proposed, conforming to the provisions of the IRS Sub-structure Code _____, corrected upto Correction Slip No. _____, except those that are weak and distressed which will be kept under observation with adequate speed restrictions on the same as follows:

SL	Bridge No.	Location Km	Spans & Description	Nature of Restriction	Brief Reasons

Dy. Chief Engineer (Bridge Design)

Countersigned by:

Chief Engineer / Chief Bridge Engineer

Signature:    

Annexure 'C'

OHE Certificate

Certified that the Overhead Equipment on the section (station) _____ to _____ (station) from _____ km to _____ km is provided with swiveling type of cantilever assembly, having the tension of _____ kgf / _____ kgf in contact wire / catenary wire regulated automatically/unregulated with a pre-sag of _____ mm for a span of 72m and proportionately less for smaller spans. Gap between registration tube and contact plane is _____ mm.

This OHE is safe to run _____ (rolling stock) with _____ maximum number of _____ current collecting pantographs on head of the train, at a maximum speed of _____ kmph, subject to following restrictions * :

Sl.	Station		Kms		Nature of Restriction	Brief Reason
	From	To	From	To		

CEDE

Note:

1. ** Restrictions of permanent nature only to be given.
2. Deleted.

Signature

Signature

Signature

Signature

Signature

Signature

Joint Safety Certificate

Certified that it is safe to run _____ (particulars of locomotive or rolling stock proposed to run) not exceeding _____ units (in the case of locomotive) coupled together on the section _____ (station) to _____ (station) from _____ (km) to _____ (km) of the _____ Railway at a maximum speed of _____ (km/h) against a maximum speed of _____ (km/h) certified by Research, Design and Standards Organisation, subject to the following speed restrictions and conditions:-

(a) Speed restrictions:-

Sl No.	From km to km	Nature of speed restriction	Brief Reason For Restriction

(b) Special Conditions:-

1.....
2.....
3.....
4.....

PCME

PCE

PCEB

PCSTE

PCOM

Note: PCEB should sign:

- (i) Wherever electric traction and/or movements on electrified sections is/are involved
- (ii) Wherever Tower Wagons are involved.

Sgt

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Sgt

Sgt

Sgt

Annexure 'E'

From:
The Commissioner of Railway Safety,

To:
The Secretary (Works)
Railway Board,
Rail Bhawan,
New Delhi.

(Through The Chief Commissioner of Railway Safety)

Sub: _____
Ref: Application No. _____, dated _____ from _____
Railway with the _____ enclosures.

With reference to the application from _____ Railway cited above, I recommend that _____ (description of train) with maximum axle load of _____ tonnes and load density of _____ tonnes per metre run, not exceeding _____ (No. of coaches) on _____ sections of the said Railway may be sanctioned to run at a maximum speed of _____ kmph subject to the conditions laid down in the Joint Safety Certificate No. _____, dated _____ and local restrictions imposed from time to time and further subject to the following stipulations:

Stipulations

SL	Stipulation	Reasons

Commissioner of Railway Safety

Signature

Signature

Signature

Signature

Signature

No.

SANCTION LETTER FOR RUNNING OF LOCOMOTIVE OR ROLLING STOCK

Sub:

Ref: Application No., dated from
Railway with the enclosures.

Sanction is hereby accorded to the running of (description of locomotive or rolling stock) to Sketch No. with a maximum axle load of tonnes and load density of tonnes per metre run, not exceeding units (in the case of locomotives) coupled together on section of Railway at a maximum speed of kmph, subject to the conditions laid down in the Joint Safety Certificate No., dated and local restrictions imposed from time to time and further subject to the following stipulations:

Stipulations

SL	Stipulation	Reasons

General Manager

.....

Copy for kind information & n. a. to:

1. CCRS
2. CRS(.....circle)
3. DG/RDSO
4. EDCE/G/Rly Board
5. All PHODs of concerned Railway
6. CSO of concerned Railway
7. CBE of concerned Railway

S-17

A-17

P-17

B-17

C-17

Annexure 'G'



भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
रेलवे बोर्ड Railway Board

No. 2018CEDO/SB/PC 6/JSC

Dated, dated 20.09.2018

General Managers
All Indian Railways

Sub: Joint Safety Certificate (JSC)

- (1) Joint Safety Certificate (JSC) is to be signed by PHODs of Zonal Railway before introduction of any rolling stock over a section, carrying out oscillation trials of vehicles, carrying out 'route proving run' or 'confirmatory oscillograph car run (COCR)'.
- (2) Many a times, it is noticed that issuance of JSC takes considerable time and file remains shuffling among various departments. To ensure expeditious issuance of JSC, the following procedure may therefore be followed for issuance of JSC:
 - i. The HOD concerned with the issue i.e., for elect. loco trials-CELE, for COCR-CRSE etc. shall be the coordinator for the issuance of JSC.
 - ii. The concerned HOD shall issue self contained note to CTE, CBE, CEDE etc. for issuance of required safety certificates like Track Certificate, Bridge Certificate, OHE Certificate etc. The respective HODs shall submit the required certificate to concerned HOD in not more than 10 days from the receipt of note.
 - iii. JSC shall then be signed in a joint meeting to be called by concerned PHOD.
- (3) The JSC should normally be issued in maximum 15 days from the date of receipt of reference from RDSO/ initiation of process.
- (4) All correspondence with CRS shall however be done through CBE of zonal railway.
- (5) This is issued with the approval of Board (MR, CRB)

(रेल मंत्रालय)
जनकपुरी निदेशक/ निदेशक इंजीनियरी रेलवे बोर्ड
(Phone: 011-23383379; Rly no. 44803)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

Annexure

No. 78/WDO/CRS/1/Vol. V

Date: 31.05.2018

General Manager,
All Indian RailwaysThe Chief Commissioner of Railway Safety,
Office Compound of DRAMNER,
Ashok Marg, Lucknow.**Sub: - Commission for Railway Safety****-Procedure to Deal with Difference of Opinion between Railway Administration and CRS for Opening of New Railway or Work or Condonation of Infringements to URSDO for structures**

1. Commissioner of Railway Safety (CRS) is empowered for 'opening of a new railway or work' on the request of Zonal Railway. However, many a times, it has been noticed that in a case where there is difference of opinion between Zonal Railway and CRS, prolonged correspondence takes place between them extending even for years together in resolving the issue.

2. The prolonged correspondence in decision making results in avoidable delay in opening of new lines or works on Indian Railways. To expedite the process of decision making in such cases, following procedure proposed by Ministry of Railways has been agreed by Ministry of Civil Aviation:

"All cases of opening of a railway or a work or condonation of infringements to URSDO for structures, where there is difference of opinion between zonal railway and CRS and issue is not getting resolved in a reasonable time, CRS at his own or on the request of Railway Administration (as defined in "The Railways Act, 1989") refer the case to Chief Commissioner of Railway Safety (CCRS) within 15 days of receipt of such request from Railway Administration, for resolving the issue. In case such reference on the request of Railway Administration is not made by CRS to CCRS, the Railway Administration can make suitable reference to CCRS directly with a copy of such reference to concerned CRS and Central Govt. (Railway Board).

CCRS shall communicate his opinion to CRS and Railway Administration concerned, which shall be taken as the opinion of the Commission for Railway Safety. The cases where CCRS does not agree with Railway Administration, the CCRS shall submit the report with his opinion to Central Govt., for decision of the Central Govt. as per Section 22(2) and 22(3) of "The Railways Act, 1989."

3. Further, as suggested by Ministry of Civil Aviation, in order to resolve various interface issues between Zonal Railway and CRS, General Manager shall hold a meeting with CRS bi-monthly.

4. This is issued with the approval of CRB.

Prasen Sengupta
31-05-18
(सं. ७८/१८)

सदस्य रेलवे बोर्ड/महानिरीक्षक/एनईडी
(File No. 44883, 44744, 4411-3) 38/1791

Copy forwarded for kind information to:

- (i) J. Secy. (RA), Ministry of Civil Aviation, Rajiv Gandhi Bhawan, New Delhi 110003, in reference to Secretary, MoCA DO No. A.60015/101/2018-CRS, dated 24.05.2018.
- (ii) Director General/ RDSO, Muzak Nagra, Lucknow
- (iii) Commissioner of Railway Safety, All Circles

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सदस्य रेलवे बोर्ड/महानिरीक्षक/एनईडी

Modification in Rule 28 and Rule 28A in Juxtaposition

Rule 28: Introduction of new types of locomotives or rolling stock or increase in sanctioned maximum speed of existing locomotives or rolling stock

Para no.	Existing Para	Modified Para	Justification
(1)	The Research, Design and Standards Organisation shall apply, for introduction of new types of locomotives or rolling stock different from those already running on any section or division of railway administrations for use by any railway administration, to the Central Government through the Commissioner. Explanation.—For the purposes to this rule, any increase in sanctioned maximum speed of existing locomotives or rolling stock shall be treated as introduction of new types of locomotives or rolling stock.	The Research, Design and Standards Organisation shall apply, for introduction of new types of locomotives or rolling stock different from those already running on any section or division of railway administrations for use by any railway administration, to the Central Government through the Commissioner. Explanation- Deleted	For process simplification, definition of 'new' rolling stock revised in para 6. Provision regarding 'Increase in speed' has been covered in para 6 and therefore deleted in this para.
(2)	The application under sub-rule (1) shall be accompanied by— (a) such diagrams as may be necessary to give full particulars of the axle loads, wheel spacing, length over buffers and other principal dimensions of the rolling stock for which sanction is required; (b) provisional speed certificate or final speed certificate, as the case may be, issued by the Research, Design and Standards Organisation; and	The application under sub-rule (1) shall be accompanied by— (d) such diagrams as may be necessary to give full particulars of the axle loads, wheel spacing, length over buffers and other principal dimensions of the locomotive or rolling stock for which sanction is required; (e) provisional speed certificate or final speed certificate, as the case may be, issued by the Research, Design and	• "Locomotive or" has been added for better clarity and uniformity in whole document. • 'the maximum number of diesel/electric multiple units' has been added to cover EMU/MEMU also.

	(c) the maximum number of motive power units proposed to be coupled together for multiple operation shall be specifically mentioned.	Standards Organisation; and (f) the maximum number of motive power units or the maximum number of diesel/electric multiple units proposed to be coupled together for multiple operation shall be specifically mentioned.	
(4)	No new type of engine or rolling stock which would cause stresses exceeding those specified in the IRS Bridge Rules, 1964, or the Standard Codes of Practice, or in the absence of any such reference, the design criteria approved by the Central Government for existing structures or excessive stresses in track shall be ordered until the sanction of the Central Government has been received through the Commissioner for doing so.	No new type of locomotive or rolling stock which would cause stresses exceeding those specified in the IRS Bridge Rules, 1964 (latest), or the Standard Codes of Practice, or in the absence of any such reference, the design criteria approved by the Central Government for existing structures or excessive stresses in track shall be inducted until the sanction of the Central Government has been received through the Commissioner for doing so.	• "Locomotive or" has been added for better clarity and uniformity in whole document. • "latest" added and in place of "ordered", "inducted" mentioned for better clarity
(5)	The Commissioner may, for permitting new designs of locomotives, require oscillation trials to be conducted and call for the records for his scrutiny.	The Commissioner may, for permitting new designs of locomotives or rolling stock, require oscillation trials to be conducted and call for the records for his scrutiny.	• "Locomotive or" has been added for better clarity and uniformity in whole document.
(6)	A rolling stock having different principal dimension or a different bogie design or new designs of braking system or suspension details like axle load, track loading density, unsprung mass being different shall be regarded as new rolling stock: Provided that any minor change of equipment design or change of internal equipment layout on the rolling stock or minor change of axle load or minor change of track	A locomotive or rolling stock shall be considered new, if it is different from those already running on any section or division of railway administration: <i>Explanation:</i> A locomotive or rolling stock having larger principal dimensions/more infringements or different maximum design axle load or different maximum design track loading density or different basic bogie design or	• In terms of para 1, a new rolling stock shall be introduced by Railway Board only. • With existing provision of para 6, each and every rolling stock with new transportation code requires Railway Board sanction, even for the rolling stock having minor changes from the existing rolling stock. New Transportation code is being issued

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	loading density or minor change in unprung mass shall not be regarded as new rolling stock, unless such changes are likely to significantly affect weight distribution, center of gravity or riding behaviour of the rolling stock: Provided further that any modification in the design of the coach which alters the system of operation and control over the rolling stock, like change in the braking system or change in the principle of traction shall be regarded as a material modification in the type and design of the rolling stock.	new design of braking system other than currently in use over IR or different kind of operation or different system of operation and control over the rolling stock or with proposed maximum speed more than the maximum speed of those stocks already running in the same category (Locomotives/ Trainset including EMU, MEMU / Coaches / Wagons / Track Machine/ Cranes / OHE Inspection Cars/ Any other category), shall be regarded as new rolling stock. Provided that any change of internal layout of car body or minor modification in suspension system/ equipment layout of bogie design or minor change in principal dimensions shall not be regarded as new rolling stock. A locomotive or rolling stock with such or any other minor changes shall be regarded as 'modified' (not 'new') and may be issued a separate transportation code by Railway Board, to differentiate it from already running locomotive or rolling stock.	even for minor changes to differentiate it from the existing rolling stock. - Rolling stock with minor changes or having similarities like BOXNM1 and BOXNLWM1, which are having same axle load and similar parameters, BLL and BLLM wagons which are same as BLC and BLCM wagons but of longer length, LHB coaches having same axle load, but different configuration e.g. AC 2 Tier and AC 3 Tier etc require Railway Board sanction following a process, which is repetitive in nature. It results in delay in introduction of rolling stock. - Therefore, for process simplification, definition of 'new' rolling stock has been revised. A locomotive or rolling stock with minor changes has been defined as 'modified'. - With proposed changes repetitive nature work will be reduced and it will facilitate faster introduction of rolling stocks.
(7)	(New Para)	Sanction for introduction of a locomotive or rolling stock which is not considered new and termed as 'modified', as per the criteria mentioned in para (6) above, shall be accorded by DG/RDSO, based	Rolling stocks with minor changes have been termed as 'Modified'. The "modified" rolling stock shall not need sanction of Railway Board, as condition for sanction

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		on the Provisional/Final speed certificate issued by RDSO. While issuing sanction for such 'modified' locomotive or rolling stock, inclusion of conditions issued by Central Government in sanction letter of similar type, in same category, of locomotive or rolling stock, shall be duly considered.	for "modified" rolling stock remain almost same as similar rolling stock in the respective category, already sanctioned by Board. Such "modified" rolling stock shall be introduced by DG RDSO. • It will facilitate faster introduction of rolling stocks.
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Rule 28A: Use of new types of locomotives or rolling stock by railway administration.

Sub Rule no. Under Rule 28A	Existing Para	Modified Para	Justification
(1)	The General Manager of a Government railway may sanction the use of any locomotive or rolling stock already introduced on Indian railway by the Central Government under the provisions of rule 28, on any section or division of railway under his control: Provided that the railway administration other than the Government railway shall require the approval of the Central Government through the Commissioner for use of any locomotive or rolling stock already introduced on Indian railway by the Central Government under the provisions of rule 28, on any section of railway under its control.	The General Manager of a Government may sanction the use of any locomotive or rolling stock already introduced by the Central Government / DG RDSO under the provisions of rule 28, on any section or division of railway under his control. Provided that the railway administration other than the Government railway shall require the approval of the Central Government through the Commissioner for use of any locomotive or rolling stock already introduced on Government railway by the Central Government/DG RDSO under the provisions of rule 28, on any section of railway under its control.	In view of changes proposed in Rule 28, the 'modified' rolling stock shall be introduced by DG RDSO. Accordingly, this para revised.

(2)(iii)	(iii) the sanction of the Central Government for introduction of the locomotives or rolling stock or increase in sanctioned maximum speed of existing locomotives or rolling stock under rule 28;	the sanction of the Central Government /DG RDSO for introduction of the locomotives or rolling stock.	In view of changes proposed in Rule 28, this para has been revised.
2 (iv) (c)	the stresses which will be produced in the various bridges over which the proposed rolling stock will run; and	the stresses which will be produced in the various bridges over which the proposed locomotive or rolling stock will run; and	• "Locomotive or" has been added for better clarity and uniformity in whole document.
2 (iv) (d)	the effects which the said rolling stock will have on various structures or tracks as compared with those caused by rolling stock already in use, or allowed by the existing Government orders:	the effects which the said locomotive or rolling stock will have on various structures or tracks as compared with those caused by locomotive or rolling stock already in use, or allowed by the existing Government orders:	• "Locomotive or" has been added for better clarity and uniformity in whole document.
2 (vi)	an approximate estimate of the cost of such improvements in existing structures or track as the use of the proposed rolling stock is likely to render necessary on the concerned railway, whether immediately or in the near future; and	an approximate estimate of the cost of such improvements in existing structures or track as the use of the proposed locomotive or rolling stock is likely to render necessary on the concerned railway, whether immediately or in the near future; and	• "Locomotive or" has been added for better clarity and uniformity in whole document.
(5)	New Para	If infrastructure and operating conditions, for a new/modified locomotive or rolling stock, as specified in the Provisional or Final Speed Certificate issued by RDSO, are same as that for any other locomotive or rolling stock already running on the Railway, process mentioned in para (2) for sanction of General Manager shall not require to be followed. Instead, in such cases, only a notification (which will be	• If infrastructure and operating conditions, for a new/modified locomotive or rolling stock are same as any of running stock, there is no need for preparing JSC and obtaining sanction of GM. • It will simplify the procedure and avoid delay

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		considered at par with the sanction) shall be issued by the General Manager that permission is given for use of this Locomotive or Rolling Stock on the Railway on the same infrastructure and operating conditions as already notified for <u>such</u> -and- <u>such</u> . Locomotive or rolling stock. This notification shall be sent to the Commissioner for his information ten days in advance of the actual use of locomotive or rolling stock over the railway.	in use of new/ modified rolling stock by Railways.
(6)	The provisions of this rule shall, mutatis mutandi, apply to every proposal of a railway administration other than Government railway for seeking approval of the Central Government through the Commissioner, for the use of any locomotive or rolling stock already introduced on Indian railway by the Central Government under the provisions of rule 28, on any section of railway under its control.	The provisions of this rule shall, mutatis mutandis, apply to every proposal of a railway administration other than Government railway for seeking approval of the Central Government through the Commissioner, for the use of any locomotive or rolling stock already introduced on Indian railway by the Central Government /DG RDSO under the provisions of rule 28, on any section of railway under its control.	•Typographical error corrected. •In view of changes proposed in Rule 28, this para has been revised.

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Annexure-4**Modification in Policy Circular 6 in Juxtaposition**

Para of P C 6 (Revised 2015)	Existing Provisions	Proposed Provisions	Justification
2	Use of Rolling Stock Already Sanctioned by Central Government (Railway Board) or Running on Any Section(s) of Railway	Use of Rolling Stock Already Sanctioned by Central Government (Railway Board)/DG (RDSO) or Running on Any Section(s) of Railway	As per proposed Rule 28, Railway Board shall sanction 'new' and DG/RDSO shall sanction 'modified' rolling stock. Accordingly, para modified.
2.1	In the case of locomotive or rolling stock already sanctioned by Central Govt. (Railway Board) or running on any section(s) of any Railway, the same can be used over zonal railway with the approval of General Manager following the procedure given in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. The Safety Certificates which should accompany Joint Safety Certificate (JSC) (Annexure D) are at Annexures A, B and C. The Proforma for sanction to be given by GM is at Annexure F.	In the case of locomotive or rolling stock already sanctioned by Central Govt. (Railway Board)/DG (RDSO) or running on any section(s) of any Railway, the same can be used over zonal railway with the approval of General Manager following the procedure given in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. The Safety Certificates which should accompany Joint Safety Certificate (JSC) (Annexure D) are at Annexures A, B and C. The Proforma for sanction to be given by GM is at Annexure F.	
3	Determination of Speed of New Design of a Locomotive or Rolling Stock	Determination of Speed of New/Modified Design of a Locomotive or Rolling Stock	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added.
3.1.1	The provisional maximum permissible speed for new design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned	The provisional maximum permissible speed for new/modified design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, on the	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added. 'Simulation Study' phrase added for more objective assessment of the provisional maximum speed which

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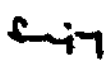
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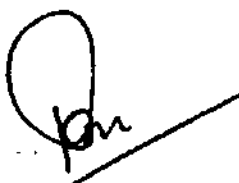
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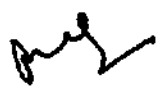


	Directorates, on the basis of design features & data and where appropriate, on comparison of the performance of similar designs of locomotives or rolling stocks already in service.	basis of design features, simulation study & data and where appropriate, on comparison of the performance of similar designs of locomotives or rolling stocks already in service.	can be assigned for a stock.
3.1.3	However, in respect of such locomotive or rolling stock, which is not 'new' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time', provisional speed mentioned in para 3.1.2 above can be increased by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, as under: • 105 km/hr for Broad Gauge passenger stock • 75 km/hr for Broad Gauge goods stock • 75 km/hr for Metre Gauge passenger stock • 50 km/hr for Metre Gauge goods stock • 40 km/hr for Narrow Gauge stock The above speed limits can further be increased up to the same speed as that permitted for the stock already in service after one year by ED Standards/Motive Power/RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates, in case no adverse report on the running performance of locomotive	However, in respect of such locomotive or rolling stock, which is regarded as 'modified' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time', provisional speed mentioned in para 3.1.2 above can be increased by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, as under: • 105 km/hr for Broad Gauge passenger stock • 75 km/hr for Broad Gauge goods stock • 75 km/hr for Metre Gauge passenger stock • 50 km/hr for Metre Gauge goods stock • 40 km/hr for Narrow Gauge stock The above speed limits can further be increased up to the same speed as that permitted for the stock already in service after one year by ED Standards/Motive Power/RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates, in case no adverse report on the running performance of locomotive or rolling stock, is received by RDSO.	As per Para 6 of proposed Rule 28, 'new' rolling stock replaced with 'modified' rolling stock in this para.

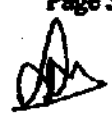
	or rolling stock, is received by RDSO.		
3.1.4	The validity of provisional speed certificate shall be five years, except when it is superseded by final maximum permissible speed certificate.	The validity of provisional speed certificate shall be five years for departmental stock and three years for locomotive or rolling stock other than departmental stock, except when it is superseded by final maximum permissible speed certificate.	Provisional speed certificate is issued as a temporary measure and it is very much desirable to issue final speed certificate at the earliest possible. Hence, validity for other than department stock has been reduced to 3 years.
3.2.1	The final maximum permissible speed for new design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power), RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates. In case of any dispute, the matter shall be referred to railway board for deliberations among concerned technical members and final orders.	The final maximum permissible speed for new/modified design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power), RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates. In case of any dispute, the matter shall be referred to railway board for deliberations among concerned technical members and final orders.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
3.2.2	The final maximum permissible speed of new design of a locomotive or rolling stock shall be determined after due consideration of the services to be performed, comparison with the similar stock already in service, and on the basis of detailed Oscillation Trials for assessing the riding quality and/or stability.	The final maximum permissible speed of new/modified design of a locomotive or rolling stock shall be determined after due consideration of the services to be performed, comparison with the similar stock already in service, and on the basis of detailed Oscillation Trials for assessing the riding quality and/or stability.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.







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3.2.3	However, in respect of such locomotive or rolling stock, which is not 'new' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'. detailed Oscillation Trials may be dispensed with by ED Standards (Motive Power) RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates. In case of difference of opinion, the matter shall be referred to the Central Govt. (Railway Board) for deliberations among concerned technical members and final decision.	However, in respect of such locomotive or rolling stock, which is not 'new' and regarded as 'modified' as defined in 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'. detailed. Oscillation Trials may be dispensed with, by ED Standards (Motive Power) RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates under following conditions: If there is change of axle load up to + 2%, - (within range of empty and loaded condition of similar stock), or change of track loading density up to + 2%, -100% or change in unsprung mass up to $\pm 5\%$, or change in principal dimensions (Length, Width and Height) up to +5%, -2% within MMD, or change in center of gravity upto +2%, -10% with respect to any similar stock within same category (as defined in para 3.3.1.1) already running over Indian Railways provided there is no change in suspension system or no change in bogie design affecting the riding behavior of rolling stock. In case of difference of opinion, the matter shall be referred to the Central Govt. (Railway Board) for deliberations among concerned technical members and final decision.	• As per Para 6 of proposed Rule 28, 'modified' added. Similarity of rolling stock shall be assessed only for 'modified' stock for dispensation, subject to prescribed conditions • An objective criterion for dispensation defined in para for better clarity.
3.2.5	For carrying out tests on new locomotive or rolling stock, where speeds in excess of the provisional / proposed final maximum permissible speed will be attained, Executive Director Standards	For carrying out tests on new/modified locomotive or rolling stock, where speeds in excess of the provisional/ proposed final maximum permissible speed will be attained, Executive Director	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.

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	(Motive Power) shall determine in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures), the increments of test speeds from the provisional / proposed final maximum permissible speed and also the maximum test speed, on the basis of the design features, data and other information furnished by the head of the Locomotive / Rolling Stock Design Directorate concerned and the particulars of track and bridges available in the section.	Standards (Motive Power) shall determine in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures), the increments of test speeds from the provisional/ proposed final maximum permissible speed and also the maximum test speed, on the basis of the design features, data and other information furnished by the head of the Locomotive / Rolling Stock Design Directorate concerned and the particulars of track and bridges available in the section.	
3.2.6	For conducting trial, on the advice of the RDSO to test a new locomotive or rolling stock, General Manager of the concerned railway shall allow conducting the trials on their system, on the test section identified by RDSO, after considering the joint safety certificate duly signed by the Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer (Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section).	For conducting trial, on the advice of the RDSO to test a new/modified locomotive or rolling stock, General Manager of the concerned railway shall allow conducting the trials on their system, on the test section identified by RDSO, after considering the joint safety certificate duly signed by the Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer (Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section).	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
3.2.6.1	New Para	Alternatively, standing sanction of General Manager with validity of 2 years may be issued for a particular axle load and speed on a specified test section after following the above procedure for conducting trials of rolling stocks or locomotives having such axle load and speed not exceeding the values indicated in the standing sanction. Separate standing	• Issue of sanction for trial of every different stock having same axle load, speed and test section is repetitive in nature and does not need repeated examination by the Zonal railways • Hence, a standing sanction by GM,

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		sanctions may be required for different type of rolling stock i.e. Coaches/ EMU/ MEMU/ DMU/ Train set, Wagon and Departmental vehicle etc., or Locomotive to accommodate various boundary parameters. Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structure) and other concerned directorates will issue a Generic Oscillation Trial Speed Certificate to the Zonal Railway, duly including all the boundary conditions for trial, for processing of the standing sanction. Based on the standing sanction of GM and generic oscillation trial speed certificate, a supplementary speed certificate for conducting the trial of particular locomotive or rollingstock would be issued by Executive Director Standards (Motive Power) in consultation with the design directorate only, who would keep the other concerned directorates apprised of issuance of such a supplementary speed certificate for a particular rolling stock / locomotives as per provision of para 3.2.5.	valid for two years, for trial upto a particular axle load and speed on specified section will be in order. • It will substantially expedite process of conducting trials of Rolling Stock.
3.3.1	The Speed Certificates - both provisional and final for new design of a locomotive or rolling stock, shall be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates. In case of any dispute,	The Speed Certificates - both provisional and final for new/modified design of a locomotive or rolling stock, shall be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates. In case	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.

	the matter shall be referred to Central Govt. (Railway Board) for deliberations among concerned members and final decision.	of any dispute, the matter shall be referred to Central Govt. (Railway Board) for deliberations among concerned members and final decision.	
3.3.1.1	New Para	Alternatively, generic final speed certificates for different category of new / modified locomotives or rolling stock (Trainset including EMU, MEMU/ Coaches/ Wagons/ Track Machine/ Cranes/ OHE Inspection Cars/ any other category), may also be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structure) and other concerned directorates, duly including all the boundary conditions related to track, bridges, signaling and rolling stock for each group. Any new/ modified rolling stock qualifying the generic final speed certificate will be added as annexure by amendment to respective generic final speed certificate by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates.	• Stipulations of final speed certificate for rolling stock in same category having similar boundary conditions, are repetitive in nature. • Therefore, Generic Speed certificates can be issued to avoid repetitive work. • It will also facilitate early issue of speed certificate.
3.3.2	The above certificate shall invariably indicate whether such locomotive may be used in multiple operations and if so, the maximum number of locomotives that may be coupled together as well as the special conditions, if any to be satisfied in regard to track and bridges, before permitting such operation.	The above mentioned certificates shall invariably indicate whether such locomotive or diesel/electric multiple units may be used in multiple operations and if so, the maximum number of locomotives or diesel/electric multiple units that may be coupled together as well as the special conditions, if any to be satisfied in regard to track and bridges, before permitting such operation.	Para elaborated for better clarification.

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3.3.4	New Para	Amendment issued by RDSO to the respective type of speed certificate of a particular locomotive or rolling stock will not require fresh sanction of Railway Board, if the amendment does not come under the category of 'New' rolling stock as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.	• There is ambiguity regarding sanction of amendments in speed certificate issued by RDSO and references are received to obtain Railway Board sanction. • It will help in avoiding any confusion on this account. • Implementation of amendments and introduction of rolling stock will be expedited.
3.4	Movement of a Newly Designed Locomotive or Rolling Stock	Movement of a New/Modified Designed Locomotive or Rolling Stock	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
3.4.1	The maximum permissible speed for the limited purpose of movement of new design of locomotive or rolling stock from the manufacturer's works/docks to destination or to the testing point or from the destination/testing point back to manufacturer's works shall be determined and certified by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures) and other concerned Directorates. The speed for this purpose shall not be higher than the provisional speed determined by RDSO.	The maximum permissible speed for the limited purpose of movement of new/modified design of locomotive or rolling stock from the manufacturer's works/docks to destination or to the testing point or from the destination/testing point back to manufacturer's works shall be determined and certified by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures) and other concerned Directorates. The speed for this purpose shall not be higher than the provisional speed determined by RDSO.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
3.4.2	The maximum permissible speed prescribed by the RDSO shall be subject to approval by the Principal Chief Engineer and Principal Chief Mechanical Engineer (Principal	Based on design parameters of any new/modified locomotive or rolling stock (Coaches/ EMU/ MEMU/ DMU/ Train set, Wagon and Departmental vehicle etc.), a one-	• Movement of new/ modified rolling stock shall require to be done at lesser speed and as similar Rolling Stocks, from

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	<i>Chief Electrical Engineer also in case of locomotive or involvement of electrified section) of the concerned Zonal Railways in the form of JSC, who shall ensure that the track, bridges and OHE in the sections concerned are suitable for the new stock at the speed permitted. However, if a new rolling stock infringes the Indian Railway Schedule of Dimensions or axle loads are more than that permitted on the section; JSC duly signed by Principal Chief Engineer, Principal Chief Signal & Telecom Engineer and Principal Chief Mechanical Engineer (Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section) of the concerned Zonal Railways, should deal these issues and prior approval of GM shall be taken.</i>	time movement speed certificate shall be issued by RDSO, duly stating its similarity with existing stock already running on IR and route through which movement is to be done. On the basis of speed certificate issued by RDSO, movement of locomotive or rolling stock can be done by the respective railway after certification by Chief Bridge Engineer of respective railway for non-standard/ special bridges.	consideration of MMD, braking System, Axle load, control over rolling stock, etc., are already running on the IR at higher speed, no other special measures are considered required for movement of new/ modified rolling stock. • Movement can be authorized on the basis of speed certificate issued by RDSO • It will help in expediting the introduction of new/modified rolling stock.
3.4.2.1	New Para	However, if a new/modified rolling stock infringes the MMD of Indian Railway Schedule of Dimensions, in addition to procedure outlined in para 3.4.2, railway shall ensure the movement of such rolling stock as per respective class of ODC in terms of Railway Board's letter no. 2014/CEDO/SR/04 dated 20/10/2014 as amended from time to time. However, if the infringement of a new/modified locomotive or rolling stock is equal or less as similar stock defined in para 3.4.2 above, in that case movement shall be governed by the conditions stipulated for the similar locomotive or rolling stock already running on the Railway.	• Movement of new/ modified rolling stock outside MMD covered in this para. • In case of infringement, movement can be done as per ODC or on basis of already running similar stock with higher infringement.

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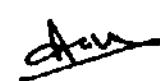
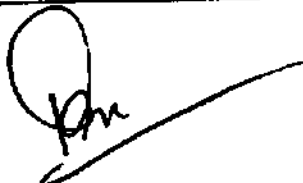
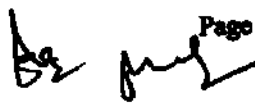
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4.1	In the event of adverse report on riding characteristics of stock already certified or on its adverse effects on track or bridges, the Zonal Railway Administration shall immediately impose a speed restriction under advice to RDSO and Commissioner of Railway Safety. Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and the concerned Executive Directors shall further reduce the speed, if considered necessary for safe operation, pending further investigations.	In the event of adverse report on riding characteristics of locomotive or rolling stock already certified or on its adverse effects on track or bridges, the Zonal Railway Administration shall immediately impose a speed restriction under advice to RDSO and Commissioner of Railway Safety. Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and the concerned Executive Directors shall further reduce the speed, if considered necessary for safe operation, pending further investigations.	• "Locomotive or" has been added for better clarity and uniformity in whole document.
5.1	Where trial fittings are introduced on existing stock or on stock obtained on a repeat order, with the prime objective of improving the riding characteristics, both at existing speeds and/or higher speeds and the locomotive or rolling stock is not covered in the definition of similar stock, the maximum permissible provisional/final speed of the stock concerned shall be decided following the same procedure as being followed for introduction of a new locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.	Where trial fittings are introduced on existing locomotive or rolling stock or on stock obtained on a repeat order, with the prime objective of improving the riding characteristics, both at existing speeds and/or higher speeds and the locomotive or rolling stock is not covered in the definition of similar stock, the maximum permissible provisional/final speed of the locomotive or rolling stock concerned shall be decided following the same procedure as being followed for introduction of a new/modified locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
6.1.1	Train for introduction in a section shall consist of only coaches, locomotive/s and train sets including EMU/MEMU/DEMU etc., which have approvals of the	Train for introduction in a section shall consist of only coaches, locomotive/s and train sets including EMU/MEMU/DEMU etc., which have approvals of the Central Govt.	As per proposed Rule 28, Railway Board shall sanction 'new' and DG/RDSO shall sanction 'modified'

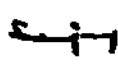
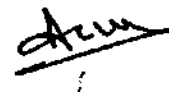
	Central Govt. (Railway Board) for running at proposed maximum speed of train or higher, as per 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'.	(Railway Board) DG (RDSO) for running at proposed maximum speed of train or higher, as per 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'.	rolling stock. Accordingly, para modified to add DG (RDSO).
6.4.1.3	The route proving run shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.	Deleted	Since Oscillation trial is dispensed considering similar riding behaviour, therefore, RPR shall also not be required for such rolling stock.
6.5.1	For such trains, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.	For introduction of first train in a section at speed above 120kmph and upto & including 130kmph, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.	Para elaborated to define clearly that for introducing first train above 120kmph and upto 130kmph, COCR is required to be conducted.

6.5.1.3	The Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for rolling stock for which detailed Oscillation Trials had been dispensed with earlier. Similarly, Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for new/existing locomotive or new/existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s is/are already running at a speed above 120 kmph.	Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of Principal Chief Engineer, in place of COCR, can be resorted to for new/modified/existing locomotive or partial replacement of new/modified/existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s is/are already running at a speed above 120 kmph. However, Route Proving Run shall not be required for modified/existing rolling stock for which detailed Oscillation Trials had been dispensed with earlier in such cases.	• Since Oscillation trial is dispensed considering similar riding behaviour, therefore, COCR shall also not be required for such rolling stock. • Modified rolling stock added in view of proposed change in Rule 28. • RPR shall be required for replacement of Locomotive or coaches in subsequent trains. It can be approved by PCE as for first train approval of GM has already been taken in that respective section.
6.5.1.4	During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.	During COCR, the train should run at maximum permissible speed for at least 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analysed by RDSO in terms of stipulated criteria given in para 3 of Appendix-I and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.	To stipulate analysis as per Appendix-I and avoid ambiguity for analysis in case of COCR.
	New Para	For trains having new/ modified type of Coaches/Locomotive, for which COCR has not been carried out earlier, RDSO will identify	• On routes, where 130kmph trains have already been introduced, it is not


		representative section of minimum 500km length on IR, where COCR shall be carried out by RDSO as per para 6.5.1 above at desired speed. Representative section for conducting COCR shall be advised by Executive Director Standards (Track Machines & Monitoring). Based on COCR, RDSO will issue a final speed certificate valid over IR, which will include special precautions, if any, to be taken by Zonal Railways. On the basis of this speed certificate, Zonal Railways will be able to introduce such trains having new/ modified type of Coaches/Locomotive on their Railway with the approval of Principal Chief Engineer in the sections where train/s is/are already running at a speed above 120kmph. There is no need to repeat COCR in each Railway.	considered necessary that for trains having new/ modified type of Coaches/ Locomotive, COCR is to be done again on all such routes. • Instead, a representative section of IR can be chosen which will give indication of behaviour of the new/modified loco/coach upto speed of 130 Kmph on track and COCR can be done on such representative track. • Speed certificate based on such COCR will be valid for entire IR. • It will help in expediting introduction of new type of trains having all new coaches like Train-18 etc.
6.5.3	Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains <i>[up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.5.1 above]</i>, having same type of coaches and locomotive for which COCR/Route Proving Run (RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs), shall also require	Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains <i>[up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.5.1 above]</i>, having same type of coaches and locomotive for which COCR/Route Proving Run(RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs on respective section of Zonal Railway	• Para revised in view of new para regarding COCR over representative track. • Subsequent trains can be introduced by Principal Chief Engineer.

	approval of GM (not to be delegated further), but, there is no need to repeat COCR/RPR and signing of JSC again.	or representative track), shall require approval of Principal Chief Engineer (not to be delegated further), and there is no need to repeat COCR/RPR and signing of JSC again.	
6.6.1.4	During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.	During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO in terms of stipulated criteria given in para 3 of Appendix-1 and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.	To stipulate analysis as per Appendix-1 and avoid ambiguity for analysis in case of COCR.
8.1	The maximum speed for different type of trials shall be as under: 1. Detailed Oscillation Trials: 10% in excess of the proposed final maximum permissible speed, except on curves where it will be governed by the provisions of IR Permanent Way Manual. 2. Route Proving Runs: Same as the maximum permissible speed for the train. 3. Emergency Braking Distance, Rating and Performance, Coupler Force and Signal Interference trial: Same as the maximum permissible speed for the train.	The maximum speed for different type of trials shall be as under: 1. Detailed Oscillation Trials: 10% in excess of the proposed final maximum permissible speed, except on curves where it will be governed by the provisions of IR Permanent Way Manual. 2. Route Proving Runs/ COCR: Same as the maximum permissible speed for the train. 3. Emergency Braking Distance, Rating and Performance, Coupler Force and Signal Interference trial: Same as the maximum permissible speed for the train. 4. The speeds mentioned above will have a tolerance of +5 kmph	It is difficult to maintain speed within tolerance of -2kmph in case of long trials such as RPR/COCR, which are done for 200-500km. Considering operational difficulty tolerance revised to ± 5 kmph.





	4. The speeds mentioned above will have a tolerance of +5 kmph and -2 kmph.	and -2 kmph except for RPR/COCR for which tolerance of ± 5 kmph shall be permitted.	
9	New Rolling Stock	New or Modified Rolling Stock	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
9.1	A new rolling stock in the context of this Circular would be as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. Decision in this regard shall be taken by the head of concerned Locomotive / Rolling Stock Directorate in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track) and Executive Director (Bridges & Structures). In taking such decision, the head of concerned Locomotive / Rolling Stock Directorate shall be guided by the criteria laid down for this purpose by RDSO's Standing Criteria Committee. In case of any difference of opinion, the matter shall be referred to Central Govt. (Railway Board) through CCRS for final decision.	A new or modified rolling stock in the context of this Circular would be as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. Decision in this regard shall be taken by the head of concerned Locomotive / Rolling Stock Directorate in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track) and Executive Director (Bridges & Structures). In taking such decision, the head of concerned Locomotive / Rolling Stock Directorate shall be guided by the criteria laid down for this purpose by RDSO's Standing Criteria Committee. In case of any difference of opinion, the matter shall be referred to Central Govt. (Railway Board) through CCRS for final decision.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
1 of Appendix - 2	Heavy Haul and Running of Goods and Passenger Trains with Special Configuration on Specified Routes For ascertaining suitability of such operation of goods and passenger trains, which is not very common, studies and trials may be necessary. On a reference from a Zonal	Heavy Haul / Long Haul and Running of Goods and Passenger Trains with Special Configuration on Specified Routes For ascertaining suitability of such operation of goods and passenger trains, which is not very common, studies and trials may be necessary. On a reference from a Zonal Railway, RDSO shall examine and issue suitable guidelines for	Special Trials also required for Long haul trains. Provision of long haul done in para for better clarity.

	Railway, RDSO shall examine and issue suitable guidelines for operation, based on the experience and results of trials undertaken elsewhere in the past. However when adequate data is not available and trial is considered necessary, speed certificate shall be issued for carrying out trials. GM shall permit such trials, but, CRS's approval for such trials is not necessary. After trials, a copy of the report and necessary guidance for operation shall be sent by RDSO to the Railway.	operation, based on the experience and results of trials undertaken elsewhere in the past. However, when adequate data is not available and trial is considered necessary, speed certificate shall be issued for carrying out trials. GM shall permit such trials, but, CRS's approval for such trials is not necessary. After trials, a copy of the report and necessary guidance for operation shall be sent by RDSO to the Railway.	
2 of Appendix - 2	Emergency Braking Distance (EBD) Trials for New Type of Rolling Stock Such trials may be necessary for heavy haul, goods and passenger trains with new type of locomotives and rolling stock. In every case of introduction of new rolling stock, a field trial shall always be carried out to arrive at the Emergency Braking Distance. In case of existing stock, a computer simulation shall normally be adequate for arriving at emergency braking distances. However, when the train speeds involved are above 130kmph for passenger, and above 80 kmph for goods trains, the results of computer simulation shall invariably be validated by actual field trials. In case, actual trials are necessary, Speed Certificate shall be issued by RDSO. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such	Emergency Braking Distance (EBD) Trials for New/Modified Type of Rolling Stock Such trials may be necessary for heavy haul/Long Haul, goods and passenger trains with new/ modified type of locomotives and rolling stock. In every case of introduction of new/ modified rolling stock, a field trial shall always be carried out to arrive at the Emergency Braking Distance. In case of existing stock, a computer simulation shall normally be adequate for arriving at emergency braking distances. However, when the train speeds involved are above 130kmph for passenger, and above 80kmph for goods trains, the results of computer simulation shall invariably be validated by actual field trials. In case, actual trials are necessary, Speed Certificate shall be issued by RDSO. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such trials in passenger	Trials also required for Long haul trains. Provision of long haul done in para for better clarity

	trials in passenger running lines. Such trials shall not be required for each composition of rolling stock in train. Once adequate trials data is available, the same can be made use of for future references. To avoid repetitive EBD trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).	running lines. Such trials shall not be required for each composition of rolling stock in train. Once adequate trials data is available, the same can be made use of for future references. To avoid repetitive EBD trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).	
3 of Appendix - 2	Coupler Force Trials For heavy haul and long passenger trains, such trials may be necessary when there is a change in the mode of operation from the established pattern. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such trials in passenger running lines. To avoid repetitive Coupler Force trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).	Coupler Force Trials For heavy haul/Long haul and long passenger trains, such trials may be necessary when there is a change in the mode of operation from the established pattern. GM shall permit such trials, but CRS approval is not required. CRS shall however, be kept informed in advance about the programme for carrying out such trials in passenger running lines. To avoid repetitive Coupler Force trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). Similarly for freight stocks, trial shall be carried out with maximum trailing load to avoid trials with lesser trailing load.	• Trials also required for Long haul trains. Provision of long haul done in para for better clarity • Coupler force trial should be done with maximum trailing load to avoid repetitive trials.
4 of Appendix - 2	Rating, Performance and Adhesion Trials These trials are done for new locomotives and other motive power to establish its characteristics. Speeds, at which these trials are required to be conducted, are separately established by detailed oscillation trials. GM shall permit such trials.	Rating, Performance and Adhesion Trials These trials are done for new/modified locomotives and other motive power to establish its characteristics. Speeds, at which these trials are required to be conducted, are separately established by detailed oscillation	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.

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	but, CRS's approval is not required for such trials.	trials. GM shall permit such trials, but, CRS's approval is not required for such trials.	
5 of Appendix - 2	Signal Interference Trials These trials may be necessary while introducing new Electric Rolling Stock, which are likely to affect the signalling. Before permitting such Electric Rolling Stock in operation, if necessary, on account of introduction of new propulsion technology or on account of substantial increase in power rating of the rolling stock, harmonic levels shall be thoroughly examined and established by conducting trials upto maximum permissible rating of Electric Rolling Stock. GM shall permit such trials, but, CRS approval is not required for such trials.	Signal Interference Trials These trials may be necessary while introducing new/ modified Electric Rolling Stock, which are likely to affect the signalling. Before permitting such Electric Rolling Stock in operation, if necessary, on account of introduction of new propulsion technology or on account of substantial increase in power rating of the rolling stock, harmonic levels shall be thoroughly examined and established by conducting trials upto maximum permissible rating of Electric Rolling Stock. GM shall permit such trials, but, CRS approval is not required for such trials.	As per Para 6 of proposed Rule 28, 'modified' rolling stock also added in para.
Note 2 of Annexure 'C'	Number of current collecting pantographs on the head of the train to be restricted to ONE for high speed (more than 105 km/h) trains.	Deleted	Present provision is an old note with consideration that the quality of the current collection is within limit, if the distance between pantograph is less than 20m. A sample simulation of OHE & Power Supply system of Mathura-Hindan section was conducted by M/s Alstom in the year 2018. In the simulation report circulated vide Railway Board letter No. 2001/Elect(G)/170/1 dated 20/3/2018, it was found that current

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			collection of two pantograph with distance of 20.5m is suitable for operating speed of 180 kmph as per EN 50119.
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No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 30.08.2022

As per List Attached

**Sub:- Authorization for Raising the sectional speed upto 110kmph by
PCE of Zonal Railway for already opened section**

Ref: i) Gazette Notification No. G.S.R. 603(E) dated 26.07.2022

ii) Railway Board letter no. 70/WDO/ORI/RO/IVol.VIII dated 28.07.2022

1. Railway Board vide Gazette Notification No.G.S.R 603(E) dated 26.07.2022 has amended Indian Railways (Open Lines) General Rules,1976, rule 4.08, sub-rule(1), clause (a) as under:

'Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by special instructions'

2. The above amendment of Indian Railways (Open Lines) General Rules brings increase in *speed of section* within the ambit of Zonal Railways.

3. Therefore, following instructions are issued with the approval of Board (MI)

- I. Principal Chief Engineer of Zonal Railway is empowered to sanction further raising of sectional speed up to 110 kmph for already opened section by the Commissioner of Railway Safety.

Further, sanction of Commissioner of Railway Safety shall be taken by the Zonal Railways for raising of sectional speed beyond 110 kmph.

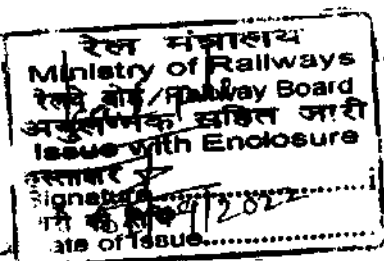
- II. For seeking sanction for raising of sectional speed upto and including 110 kmph, following guidelines shall be followed by Zonal Railways for assessing track quality standards in addition to other instructions issued by Railway Board time to time:

Zonal Railway shall conduct Oscillation Monitoring System (OMS) Run in special train. OMS equipment shall be placed on the floor (as close to the bogie pivot as possible) of free end of rearmost coach.

OMS run shall be carried out at speed 10% more than the proposed sectional speed (except on curves where maximum permissible speed shall be worked out as per IRPWM) subject to compliance of permanent and temporary speed restrictions.

- iii. Vertical and Lateral acceleration peaks recorded during OMS shall be analyzed. Following criteria should be fulfilled for processing the sanction:

- a. The average number of peaks of vertical and lateral accelerations exceeding 0.20g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km). However, the number of peaks



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in any kilometer shall not exceed 1, and where this value is exceeded, the track shall need attention.

- b. In case, the average number of peaks (exceeding 0.20g) exceeds 0.25 peak/km, the OMS run shall be repeated after attention to track.
- c. At locations, where the peaks of lateral and vertical accelerations exceed the Urgent Maintenance Limits stipulated in IRPWM, the track shall have to be attended urgently.

4. This supersedes Railway Board's letter No. 70/WDO/ORI/RO/IVol.VIII, dated 28.07.2022.

DA: As above

कार्यपालकनिदेशक/सिविलइंजी.(जी)/रेलवेबोर्ड

[Phone: 030-44803: Rly: 011-23383379:MTNL]

e-mail address : edceg2022@gmail.com

No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 30.08.2022

Copy forwarded for information to:

1. Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok Marg, Lucknow-226001
2. Commissioner of Railway Safety, All Circles

कार्यपालकनिदेशक/सिविलइंजी.(जी)/रेलवेबोर्ड

LIST FOR DISTRIBUTION (Letter No. 70/WDO/ORI/RO/IVol.VIII, Dated 30.08.2022)

1. General Managers, All Indian Railways & Production Units
2. General Manager (Con), N.F. Railway, Guwahati
3. Chief Administrative Officers (Con), All Indian Railways (Except N.F. Railway)
4. Principal Chief Engineers, All Indian Railways

(A)

1. Director General, RDSO, Manak Nagar, Lucknow
2. Director General, NAIR, Vadodara
3. Director, IRICEN, Pune - 411 001 (Maharashtra)
4. Director, IRIEN, PB No.-233, Nasik Road-422101 (Maharashtra)
5. Director, IRISSET, Taa Naka Road, Lalla Guda, Secunderabad-500017
6. Director, IRIMEE, Jamalpur Distt-Jamalpur, PIN-811214 (Bihar).
7. Director, IRITM, Sarswati Residential Estate, IRITM Campus, Manak Nagar, Lucknow

(B)

1. Concerned PSO for kind information of Chairman cum CEO, M/Infra, M/T&RS M/O&BD, M/Finance, Railway Board
2. Adv./MR, EDPG/MR, OSD/MR, OSR(Co-ord)/MR
3. Chief Vigilance Officers, All Indian Railways.
4. DG(RHS), DG(RPF), AM(CE), AM(Works), AM(B), AM(Elec.), AM(RS), AM(ME), AM(Tele), AM(C&IS), AM(Sig.), AM(Plg.), PED(B&S), PED(Vigilance), PEDCE(P), EDCE(G), EDTK(M&MC), EDCE(B&S), EDF(X)-I, EDF(X)-II, ED(Works), EDW(Plg.), ED/Project(Mon.), ED(L&A), ED(PSU), EDVE, ED(Safety), ED(Sig. Dev.), ED(M&E), EDRE, EDEE(G), EDFE, EDE(N), ED(Accounts), ED/T&MPP, ED(M&C), ED(M&P), JS(conf), JS(P), JS(G), JS(D), Vigilance-III, Vig(Conf) of Railway Board

रेलवे बोर्ड / Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 28.07.2022

The General Managers,
All Indian Railways

Sub:- Authorization to raise sectional speed upto 110 kmph

Ref: Gazette Notification No. G.S.R. 603(E) dated 26.07.2022

1. Railway Board vide Gazette Notification No.G.S.R 603(E) dated 26.07.2022 has amended Indian Railways (Open Lines) General Rules,1976, rule 4.08, sub-rule(1), clause (a) as under:

'Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by special instructions'

2. The above amendment of Indian Railways (Open Lines) General Rules brings increase in speed of section within the ambit of Zonal Railways.
3. Therefore, following instructions are issued with the approval of Board (MO&BD, MTRS, MI)

I.

- a. Principal Chief Engineer of Zonal Railways is empowered to sanction further raising of sectional speed up to 110 kmph for already opened section by the Commissioner of Railway Safety.
- b. Further, sanction of Commissioner of Railway Safety shall be taken by the Zonal Railways for increase of the 'speed of section' beyond 110 kmph.

- II. For seeking the sanction for raising of sectional speed up to 110 kmph, Zonal Railways shall conduct Oscillations Monitoring System (OMS) Runs. Following guidelines are to be observed while conducting these runs:

- a. Oscillations Monitoring System (OMS) shall be placed in the rearmost coach of the train. The OMS equipment shall be kept on the coach floor (as close to the bogie pivot as possible) on the free end of the coach.
- b. Peaks of vertical and lateral accelerations shall not exceed 0.20g. The number of peaks in any kilometer shall not exceed 1.5.
- c. In case above limits exceeds, the track shall need attention and the Oscillations Monitoring System (OMS) run of the section would be repeated.

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- d. Compliance of other relevant para of IRPWM-2020, related to track structure, track tolerances, LWR, curves, turnout etc. and related para of ACTM, IRSEM-2021 shall be ensured.

DA: As above

अजीत कुमार झा
(अजीत कुमार झा) 28.7.22

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803: Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 28.07.2022

Copy forwarded for information to:

1. Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok Marg, Lucknow-226001
2. Commissioner of Railway Safety, All Circles

(अजीत कुमार झा)
कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड

भारत का राजपत्र **The Gazette of India**

सी.जी.-डी.एल.-अ.-27072022-237607
 CG-DL-E-27072022-237607

असाधारण
 EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)
 PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित
 PUBLISHED BY AUTHORITY

सं. 530]
 No. 530]

नई दिल्ली, बुधवार, जुलाई 27, 2022/श्रावण 5, 1944
 NEW DELHI, WEDNESDAY, JULY 27, 2022/SHRAVANA 5, 1944

रेल मंत्रालय

(रेलवे बोर्ड)

अधिसूचना

नई दिल्ली, 26 जुलाई, 2022

सा.का.नि. 603(ब).—केन्द्रीय सरकार, रेल अधिनियम, 1989 (1989 का 24) की धारा 198 के साथ पठित धारा 60 की उपधारा (2) के खंड (ख) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारतीय रेल (चालित लाइन) साधारण नियम, 1976 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:-

1. संक्षिप्त नाम और प्रारंभ - (1) इन नियमों का संक्षिप्त नाम भारतीय रेल (चालित लाइन) साधारण (दूसरा संशोधन) नियम, 2022 है।

(2) वे राजपत्र में उनके प्रकाशन की तारीख से प्रवृत्त होंगे।

2. भारतीय रेल (चालित लाइन) साधारण नियम, 1976 के नियम 4.08 के उप नियम (1) के खंड (क) के स्थान पर निम्नलिखित खंड रखा जाएगा, अर्थात्:-

“(क) रेलवे के प्रत्येक सेक्शन में प्रत्येक रेलगाड़ी को उस गति सीमा के भीतर ही चलाया जाएगा, जो विशेष अनुदेशों द्वारा उस सेक्शन के लिए मंजूर की गई है।”

[फा. सं. 2022/सेफटी (एएंडआर)/19/20]

एस. के. महांति, सदस्य (ओ एंड बीडी) और पदेन सचिव

टिप्पण : मूल नियम भारत के राजपत्र, असाधारण, भाग-II, खंड-3, उप-खंड (i) में संख्यांक सा.का.नि. 445(अ), तारीख 21 जुलाई, 1981 द्वारा प्रकाशित किए गए थे और संख्यांक सा.का.नि. 195 (अ), तारीख 14 मार्च, 2022 द्वारा अंतिम रूप से संशोधित किए गए थे।

MINISTRY OF RAILWAYS

(Railway Board)

NOTIFICATION

New Delhi, the 26th July, 2022

G.S.R. 603(E).—In exercise of the powers conferred by clause (g) of sub-section (2) of section 60, read with section 198 of the Railways Act, 1989 (24 of 1989), the Central Government hereby makes the following rules further to amend the Indian Railways (Open Lines) General Rules, 1976, namely:-

1. Short title and commencement. - (1) These rules may be called the Indian Railways (Open Lines) General (Second Amendment) Rules, 2022.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Indian Railways (Open Lines) General Rules, 1976, in rule 4.08, in sub-rule (1), for clause (a) the following clause shall be substituted, namely:-

“(a) Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by special instructions.”

[F. No. 2022/Safety(A&R)/19/20]

S.K. MOHANTY, Member (O & BD) & Ex-Officio Secy.

Note : The principal rules were published in the Gazette of India Extraordinary, Part.II, Section 3, Sub-section (i) vide number G.S.R. 445(E) dated the 21st July, 1981 and were last amended vide number G.S.R. 195(E), dated 14th March, 2022.



भारत सरकार/Government of India
रेल मंत्रालय/Ministry of Railways
(रेलवे बोर्ड / Railway Board)



No. 70/WDO/ORI/RO/1/Vol.IX

New Delhi, Dated: 26.08.2022

The Director General,
RDSO,
Lucknow.

Sub: - Draft Review of Railway Opening for Public Carriage of
Passengers Rule, 2022.

Ref:- Gazette Notification S.O. 2368(E) dated 24.05.2022.

In exercise of the powers conferred by Sub-section (i) of Section 196 of the Railways Act, 1989(24 of 1989), the Central Government hereby exempt from the application of the provision of Section 21,22 and 23 of the said Act, Gazette Notification has already been issued vide S.O. 2368(E) dated 24.05.2022(Copy enclosed).

2. Accordingly, a draft revised Railway Opening for Public Carriage of Passengers Rule, 2022 is hereby submitted for your perusal, review and suggestions, if any.

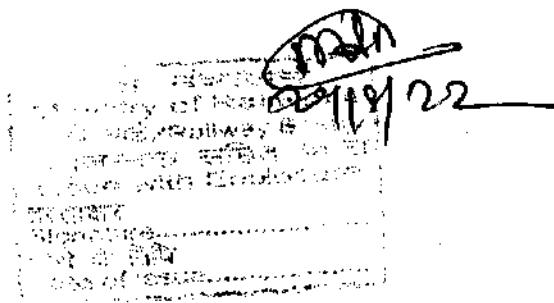
DA/As above.

अजीत कुमार झा
(अजीत कुमार झा) 26.8.22

कार्यपालक निदेशक/सिविल इंजी. (जी)/रेलवे बोर्ड
[Phone: 030-44803; Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

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29/08/2022





भारत का राजपत्र

The Gazette of India

सी.जी.-डी.एल.-अ.-25052022-235987
CG-DL-E-25052022-235987

असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (II)
PART II—Section 3—Sub-section (II)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 2247/
No. 2247

नई दिल्ली, मंगलवार, मई 24, 2022/ज्यैष्ठ 3, 1944
NEW DELHI, TUESDAY, MAY 24, 2022/JYAISTHA 3, 1944

रेल मंत्रालय

अधिसूचना

नई दिल्ली, 24 मई, 2022

का.बा. 2368(ब).— केन्द्र सरकार, रेल अधिनियम, 1989 (1989 का 24) की धारा 196 की उपधारा (1) में प्रदत्त शक्तियों का प्रयोग करते हुए एतद्वारा रेलवे को निम्न के संबंध में उक्त अधिनियम की धारा 21, 22 तथा 23 के प्रावधान के प्रयोग से छूट देती है —

- (क) ऊपरी पैदल पुलों और ऊपरी सड़क पुलों का निर्माण, पुनर्निर्माण, आशोधन और मजबूत करना;
- (ख) छोटे पुलों का निर्माण, पुनर्निर्माण, पुनः गर्डर लगाना और मजबूत करना;
- (ग) छोटे पुलों के अलावा सभी मौजूदा पुलों पर पुनः गर्डर लगाना और मजबूत करना;
- (घ) चौकीदार युक्त क्रॉसिंग को हटाना;
- (ङ) बाहरी स्टेशन सीमाओं की इंटरलॉकिंग सहित समपार को अपग्रेड करना;
- (च) बिजली कर्षण चालू करना;
- (छ) समर्पित माल गलियारे से संबंधित कार्य।

[फा. सं. 2018/ट्रांस सेल/सिविल/सीआरएस]

अतुल बी. खरे, प्रमुख कार्यकारी निदेशक सिविल इंजीनियरिंग (योजना)

MINISTRY OF RAILWAYS

NOTIFICATION

New Delhi, the 24th May, 2022

S.O. 2368(E).—In exercise of the powers conferred by Sub-section (1) of Section 196 of the Railways Act, 1989 (24 of 1989), the Central Government hereby exempt from the application of the provision of Section 21, 22 and 23 of the said Act, the Railway in respect of—

- (a) Construction, rebuilding, modification and strengthening of foot-over-bridges and road-over-bridges;
- (b) Construction, rebuilding, regirdering and strengthening of minor bridges;
- (c) Regirdering and strengthening of all existing bridges, other than minor bridges;
- (d) Elimination of manned level crossing;
- (e) Upgradation of level crossing, including interlocking outside station limits;
- (f) Introduction of Electric Traction;
- (g) Works related to Dedicated Freight Corridor.

[F.No. 2018/Trans. Cell/Civil/CRS]

ATUL B. KHARE, Principal Executive Director Civil Engineering (Planning)



भारत सरकार/Government of India
रेल मंत्रालय/Ministry of Railways
(रेलवे बोर्ड / Railway Board)



No. 70/WDO/ORI/RO/1/Vol.IX

New Delhi, Dated: 26.08.2022

The Director General,
IRICEN,
Pune.

Sub: - Draft Review of Railway Opening for Public Carriage of
Passengers Rule, 2022.

Ref:- Gazette Notification S.O. 2368(E) dated 24.05.2022.

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2. Accordingly, a draft revised Railway Opening for Public Carriage of Passengers Rule, 2022 is hereby submitted for your perusal, review and suggestions, if any.

DA/As above.

(अजीत कुमार झा) 26.8.22

कार्यपालक निदेशक/सिविल इंजी. (जी)/रेलवे बोर्ड
[Phone: 030-44803; Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

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29/8/2022

(अजीत कुमार झा)
29/8/22

रविहरी सं. बी.एन.- 33004/99

REGD. No. D. L-33004/99

भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-25052022-235987
CG-DL-E-25052022-235987

असाधारण
EXTRAORDINARY

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PART II—Section 3—Sub-section (II)

प्राधिकार से प्रकाशित
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NEW DELHI, TUESDAY, MAY 24, 2022/JYAISTHA 3, 1944

रेल मंत्रालय

अधिसूचना

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- (क) ऊपरी पैदल पुलों और ऊपरी सड़क पुलों का निर्माण, पुनर्निर्माण, आशोधन और मजबूत करना;
- (ख) छोटे पुलों का निर्माण, पुनर्निर्माण, पुनः गर्डर लगाना और मजबूत करना;
- (ग) छोटे पुलों के अलावा सभी मौजूदा पुलों पर पुनः गर्डर लगाना और मजबूत करना;
- (घ) चौकीदार युक्त क्रॉसिंग को हटाना;
- (ङ) बाहरी स्टेशन सीमाओं की इंटरलॉकिंग सहित समपार को अपग्रेड करना;
- (च) बिजली कर्षण चालू करना;
- (छ) समर्पित माल गलियारे से संबंधित कार्य।

[फा. सं. 2018/ट्रांस सेल/सिविल/सीआरएस]

अतुल बी. खरे, प्रमुख कार्यकारी निदेशक सिविल इंजीनियरिंग (योजना)

MINISTRY OF RAILWAYS

NOTIFICATION

New Delhi, the 24th May, 2022

S.O. 2368(E).—In exercise of the powers conferred by Sub-section (1) of Section 196 of the Railways Act, 1989 (24 of 1989), the Central Government hereby exempt from the application of the provision of Section 21, 22 and 23 of the said Act, the Railway in respect of—

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- (f) Introduction of Electric Traction;
- (g) Works related to Dedicated Freight Corridor.

[F.No. 2018/Trans. Cell/Civil/CRS]

ATUL B. KHARE, Principal Executive Director Civil Engineering (Planning)



185



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SD/RS/10/'RORO'

New Delhi, dated 26.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO'(Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*

Ref: (i) RDSO's letter no. CT/CONTR/BG/MG, dated 12.04.2022
(ii) CCRS office letter no. Q.14011/02/2022-23-TW, dated 16.07.2022

While processing the above cited case for the sanction of the Railway Board for condonation of infringement for operation of Broad Gauge Bogie Flat wagon type 'RORO'(Car- A & B) with/without any commodity (Truck) in Empty and Loaded conditions over Indian Railway, by *Zonal Railways* and over DFCCIL system by *DFCCIL*, ED/Safety, has passed following remarks, reproduced as under:

"Proposal from RDSO as well as recommendations of CCRS are against IRSOD 2004. However, in above proposal, partial approval is sought against IRSOD 2022 and remaining portions is being sent back to RDSO for examination against IRSOD 2022.

It is suggested that either complete proposal against IRSOD 2022 be examined at Railway Board or complete proposal be sent back to RDSO for examination. Partial approval will not help, in any way, to expedite the of approval of proposed RORO".

RDSO is requested to examine the issues involved and submit revised proposal w.r.t. IRSOD-2022 routed through CCRS as per extent of rules/procedure at the earliest, if required.

अजीत कुमार झा
(अजीत कुमार झा) 26.8.22

कार्यपालक निदेशक सिविल इंजीनियरिंग (जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. ED/Safety Railway Board
4. EDME(Freight) Railway Board

महेश
29/8/22

Note # 8

Proposal from RDSO as well as recommendations of CCRS are against IRSOD 2004.

However, in above proposal, partial approval is sought against IRSOD 2022 and remaining portions is being sent back to RDSO for examination against IRSOD.

It is suggested that either complete proposal against IRSOD 2022 be examined at Railway Board or complete proposal be sent back to RDSO for examination. Partial approval will not help, in any way, to expedite the of approval of proposed RORO.

24/08/2022 04:43 PM

TEJ PRAKASH AGRAWAL

ED/SAFETY

Note # 9

24/08/2022 05:05 PM

Ajit Kumar Jha

EDCE(G)

Note # 10

In view of the issue of revised IRSOD-2022, a reference may be made to RDSO to intimate the approval of the specific condonations still required from Board.

25/08/2022 03:46 PM

VINAY KUMAR AGARWAL

EXECUTIVE DIRECTOR ME (FREIGHT)

Note # 11

25/08/2022 03:56 PM

Ajit Kumar Jha

EDCE(G)



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 24.08.2022

✓ The General Manager,
SE Railway, Garden Reach
Kolkata.

Sub:- Authorization to raise sectional speed upto 110 kmph

Ref: (i) Board's letter No. 70/WDO/ORI/1/Vol.V, dated 31.05.2018

(ii) SER's latter dated 12.08.2022

Railway Board vide letter dated 31.05.2018 has circulated the procedure to deal with Difference of opinion between Railway Administration and CRS for opening of new works etc..

2. Railway is requested to follow the procedure referred in the above letter.

DA: As above

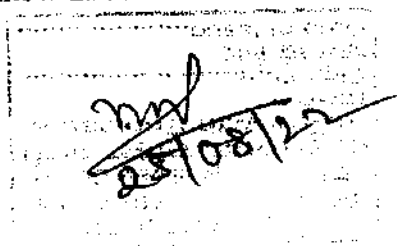
(अजीत कुमार झा) 24.8.22

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803: Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

Copy forwarded for information to:

Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok
Marg, Lucknow-226001

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Issue pl
25/08/2022



(अजीत कुमार झा) 24.8.22
कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 70/WDO/ORI/1/Vol V

Date: 31.05.2018

General Manager,
All Indian Railways

The Chief Commissioner of Railway Safety,
Office Compound of DRM/NER,
Ashok Marg, Lucknow.

Sub: - Commission for Railway Safety

-Procedure to Deal with Difference of Opinion between Railway Administration and CRS for Opening of New Railway or Work or Condonation of Infringements to IRSOD for structures

1. Commissioner of Railway safety (CRS) is empowered for 'opening of a new railway or work' on the request of Zonal Railway. However, many a times, it has been noticed that in a case where there is difference of opinion between Zonal Railway and CRS, prolonged correspondence takes place between them extending even for years together in resolving the issue.
2. The prolonged correspondence in decision making results in avoidable delay in opening of new lines or works on Indian Railways. To expedite the process of decision making in such cases, following procedure proposed by Ministry of Railways has been agreed by Ministry of Civil Aviation:

"All cases of opening of a railway or a work or condonation of infringements to IRSOD for structures, where there is difference of opinion between zonal railway and CRS and issue is not getting resolved in a reasonable time, CRS at his own or on the request of Railway Administration (as defined in "The Railways Act, 1989") refer the case to Chief Commissioner of Railway Safety (CCRS) within 15 days of receipt of such request from Railway Administration, for resolving the issue. In case such reference on the request of Railway Administration is not made by CRS to CCRS, the Railway Administration can make suitable reference to CCRS directly with a copy of such reference to concerned CRS and Central Govt. (Railway Board).

CCRS shall communicate his opinion to CRS and Railway Administration concerned, which shall be taken as the opinion of the Commission for Railway Safety. The cases where CCRS does not agree with Railway Administration, the CCRS shall submit the report with his opinion to Central Govt., for decision of the Central Govt. as per Section 22(2) and 22(3) of "The Railways Act, 1989."

3. Further, as suggested by Ministry of Civil Aviation, in order to resolve various interface issues between Zonal Railway and CRS, General Manager shall hold a meeting with CRS bimonthly.
4. This is issued with the approval of CRB.

Prem Sagar
31.05.18
(प्रेम सागर गुप्ता)

कार्यकारी निदेशक/सिविल इंजी./रेलवे बोर्ड
[Rly No. 44803, MTML 011-23383379]

Copy forwarded for kind information to:

- (i) Jt. Secy. (RA), Ministry of Civil Aviation, Rajiv Gandhi Bhawan, New Delhi 110003, in reference to Secretary, MoCA DO No. A.60015/101/2018-CRS, dated 24.05.2018.
- (ii) Director General/RDSO, Manak Nagar, Lucknow
- (iii) Commissioner of Railway Safety, All Circles

Prem Sagar
31.05.18
कार्यकारी निदेशक/सिविल इंजी./रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 24.08.2022

The General Manager,
SEC Railway, Bilaspur.

Sub:- Authorization to raise sectional speed upto 110 kmph

Ref: (i) Board's letter No. 70/WDO/ORI/1/Vol.V, dated 31.05.2018 (enclosed)

(ii) SECR' latter dated 16.08.2022

Railway Board vide letter dated 31.05.2018 has circulated the procedure to deal with Difference of opinion between Railway Administration and CRS for opening of new works etc..

2. Railway is requested to follow the procedure referred in the above letter.

अजीत कुमार झा
24.8.22

(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड

[Phone: 030-44803; Rly: 011-23383379:MTNL]

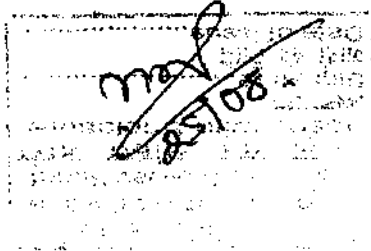
e-mail address : edceg2022@gmail.com

Copy forwarded for information to:

Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok Marg, Lucknow-226001

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Issue ple
25/08/2022





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

190

No. 70/WDO/ORI/1/Vol. V

Date: 31.05.2018

General Manager,
All Indian Railways

The Chief Commissioner of Railway Safety,
Office Compound of DRM/NER,
Ashok Marg, Lucknow.

Sub: - Commission for Railway Safety

-Procedure to Deal with Difference of Opinion between Railway Administration and CRS for Opening of New Railway or Work or Condonation of Infringements to IRSOD for structures

1. Commissioner of Railway safety (CRS) is empowered for 'opening of a new railway or work' on the request of Zonal Railway. However, many a times, it has been noticed that in a case where there is difference of opinion between Zonal Railway and CRS, prolonged correspondence takes place between them extending even for years together in resolving the issue.

2. The prolonged correspondence in decision making results in avoidable delay in opening of new lines or works on Indian Railways. To expedite the process of decision making in such cases, following procedure proposed by Ministry of Railways has been agreed by Ministry of Civil Aviation:

"All cases of opening of a railway or a work or condonation of infringements to IRSOD for structures, where there is difference of opinion between zonal railway and CRS and issue is not getting resolved in a reasonable time, CRS at his own or on the request of Railway Administration (as defined in "The Railways Act, 1989") refer the case to Chief Commissioner of Railway Safety (CCRS) within 15 days of receipt of such request from Railway Administration, for resolving the issue. In case such reference on the request of Railway Administration is not made by CRS to CCRS, the Railway Administration can make suitable reference to CCRS directly with a copy of such reference to concerned CRS and Central Govt. (Railway Board).

CCRS shall communicate his opinion to CRS and Railway Administration concerned, which shall be taken as the opinion of the Commission for Railway Safety. The cases where CCRS does not agree with Railway Administration, the CCRS shall submit the report with his opinion to Central Govt., for decision of the Central Govt. as per Section 22(2) and 22(3) of "The Railways Act, 1989."

3. Further, as suggested by Ministry of Civil Aviation, in order to resolve various interface issues between Zonal Railway and CRS, General Manager shall hold a meeting with CRS bimonthly.

4. This is issued with the approval of CRB.

Prem Sagar
31.05.18
(प्रेम सागर गुप्ता)

कार्यकारी निदेशक/सिविल इंजी./रेलवे बोर्ड
[Rly No. 44803, MTNL 011-23383379]

Copy forwarded for kind information to:

(i) Jt. Secy. (RA), Ministry of Civil Aviation, Rajiv Gandhi Bhawan, New Delhi 110003, in reference to Secretary, MoCA DO No. A.60015/101/2018-CRS, dated 24.05.2018.

(ii) Director General/RDSO, Manak Nagar, Lucknow

(iii) Commissioner of Railway Safety, All Circles

Prem Sagar
31.05.18

कार्यकारी निदेशक/सिविल इंजी./रेलवे बोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 17.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Authorization to raise sectional speed upto 110 kmph by PCE/ZR

Ref: Railway Board letter No. No.70/WDO/ORI/RO/IVol.VIII, dated 28.07.2022

- Railway Board vide letter dated 28.07.2022 (enclosed) has circulate the instruction for raising the speed of the section up to 110 kmph by PCE of Zonal Railway for already opened sections.
- Zonal Railways has raised various queries regarding the 'raising of sectional speed' criteria.
- RDSO is requested to examine and suggest the criteria for 'Raising the Sectional Speed upto 110 kmph by PCE of Zonal Railway for already opened sections'

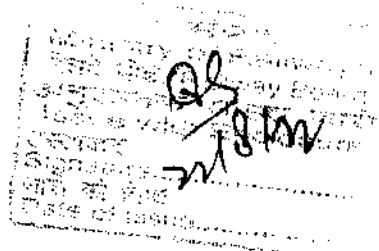
DA: As above

o/c

Isue ple
18/08/2022

अजीत कुमार झा
17.8.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803; Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com



PS
18/08/22
at



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No.70/WDO/ORI/RO/IVol.VIII

New Delhi, Dated 28.07.2022

The General Managers,
All Indian Railways

Sub:- Authorization to raise sectional speed upto 110 kmph

Ref: Gazette Notification No. G.S.R. 603(E) dated 26.07.2022

1. Railway Board vide Gazette Notification No.G.S.R 603(E) dated 26.07.2022 has amended Indian Railways (Open Lines) General Rules,1976, rule 4.08, sub-rule(1), clause (a) as under:

'Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by special instructions'

2. The above amendment of Indian Railways (Open Lines) General Rules brings increase in *speed of section* within the ambit of Zonal Railways.
3. Therefore, following instructions are issued with the approval of Board (MO&BD, MTRS, MI)

I.

- a. Principal Chief Engineer of Zonal Railways is empowered to sanction further raising of sectional speed up to 110 kmph for already opened section by the Commissioner of Railway Safety.
- b. Further, *sanction of Commissioner of Railway Safety* shall be taken by the Zonal Railways for increase of the '*speed of section*' beyond 110 kmph.

II. For seeking the sanction for raising of sectional speed up to 110 kmph, Zonal Railways shall conduct Oscillations Monitoring System (OMS) Runs. Following guidelines are to be observed while conducting these runs:

- a. Oscillations Monitoring System (OMS) shall be placed in the rearmost coach of the train. The OMS equipment shall be kept on the coach floor (as close to the bogie pivot as possible) on the free end of the coach.
- b. Peaks of vertical and lateral accelerations shall not exceed 0.20g. The number of peaks in any kilometer shall not exceed 1.5.
- c. In case above limits exceeds, the track shall need attention and the Oscillations Monitoring System (OMS) run of the section would be repeated.

31/7/22 अमृत महोत्सव
28.7.22

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- d. Compliance of other relevant para of IRPWM-2020, related to track structure, track tolerances, LWR, curves, turnout etc. and related para of ACTM, IRSEM-2021 shall be ensured.

DA: As above

31/7/22 अजीत कुमार झा
(अजीत कुमार झा) 28.7.22

कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803: Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

No.70/WDO/ORI/RO/IVolVIII

New Delhi, Dated 28.07.2022

Copy forwarded for information to:

1. Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok Marg, Lucknow-226001
2. Commissioner of Railway Safety, All Circles

(अजीत कुमार झा)
कार्यपालक निदेशक/सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2021/CEDO/SR/02(DFC)

New Delhi, Dated 08.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

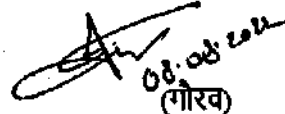
Sub: Maximum permissible speed of freight stock with single and twin pipe working in empty and/or loaded condition

Ref: DFCCIL's letter no. HQ/ML/SC/WGN, dated 29.06.2022 & 05.08.2022

Please find enclosed herewith DFCCIL's letter dated 29.06.2022 under reference, wherein it was requested to issue consolidated guidelines regarding maximum permissible speed of freight stock with single and twin pipe working in empty and/or loaded condition.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

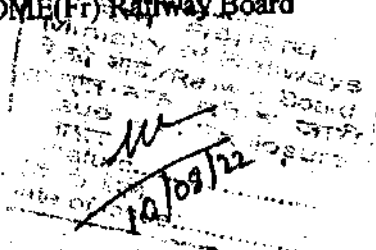

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2021/CEDO/SR/02(DFC)

New Delhi, Dated 08.08.2022

Copy forwarded for information to :

1. Managing Director, DFCCIL, 5th Floor, Supreme Court, Metro Station Building, Complex, New Delhi - 110001
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. EDME(Fr) Railway Board




(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

195



डेडीकेटेड फ्रेट कोरीडोर

डेडीकेटेड फ्रेट कोरीडोर कारपोरेशन ऑफ इंडिया लि.

Dedicated Freight Corridor Corporation of India Limited

(भारत सरकार का उपक्रम)

(A Govt. of India Enterprises)

5th Floor, Supreme court Metro Station Building Complex, New Delhi -110001

No. HQ/ML/SC/WGN

Dated : 05.08.22

✓ EDCE (G)
Railway Board
New Delhi

Sub: Maximum permissible speed of freight stocks with single pipe air brake system

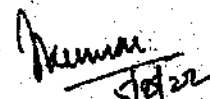
Ref : This office letter of even no. dated 29.06.2022 (Copy attached)

Vide letter under reference, it was requested to issue consolidated guidelines regarding maximum permissible speed of various freight stock with single and twin pipe working in empty and/or loaded condition.

It is requested to issue consolidated guideline/clarification in this regard at the earliest.

DA : As above

DCEG
Am
5-8-22


(Jayant Kumar)
GGM (Mech)-II

Copy to : EDME/Freight/Railway Board : For kind information please



डेडीकेटेड फ्रेट कोरीडोर कार्पोरेशन ऑफ़ इंडिया लि.
Dedicated Freight Corridor Corporation of India Limited

(भारत सरकार का उपक्रम)
(A Govt. of India Enterprise)

5th Floor, Supreme court Metro Station Building Complex, New Delhi - 110001

No. HQ/ML/SC/WGN

EDCE (G)
Railway Board
New Delhi

Dated : 29.06.2022

Sub : Maximum permissible speed of freight stocks with twin pipe air brake system

- Ref: (i) Your L/No. 2022/CEDO/SR/08 dt 13.05.2022 (For BRHNEHSM1)
(ii) Your L/No. 2022/CEDO/SR/04(1) dt 17.05.2022 (For BFNSM1)
(iii) Your L/No. 2020/CEDO/SR/23 dt 15.06.2022 (For BOXNEL)
(iv) Your L/No. 2020/CEDO/SR/25 dt 10.06.2022 (For BOXNS)
(v) Your L/No. 2021/CEDO/SR/02(DFC) dt 25.01.2021 (For BOXNHL)

1. Recently, Railway Board sanctions have been received for different types of freight stocks wherein stipulations regarding twin/single pipe working of freight stocks have been laid down.
2. In case of BRHNEHSM1, BOXNEL, BOYEL, BLCM (dwarf), it is clearly mentioned that only wagons with twin pipe shall be permitted to run beyond 75 Kmph in both empty and/or loaded condition.
3. However, in case of BFNSM1, BCNAHSM1 & BTALNM1 sanction, the relevant para does not specify whether the subject stipulations is for loaded or empty running.
4. Also, this stipulation is not there in the sanction of following wagons - BOXNS, BOXNHL, BRNM1, BOBYNHSM1, BOBYNM1, BRN22.9M1, BFNV, BLCS etc. Hence, it is not clear whether stipulation regarding twin pipe brake system is applicable on these stock or not.
5. In view of aforesaid, the following may kindly be clarified
5.1 Whether BFNSM1, BCNAHSM1 & BTALNM1 stock are permitted to run in empty and loaded condition with twin pipe at 75 Kmph and above.
5.2 Whether BOXNS, BOXNHL, BRNM1, BOBYNHSM1, BOBYNM1, BRN22.9M1, BFNV, BLCS wagons with twin pipe air brake system only are allowed to run at 75 Kmph and above.
6. A consolidated guideline regarding maximum permissible speed of various freight stock with single and twin pipe working in empty and/or loaded condition will be very helpful.

Copy to:

- (i) EDME/freight/Railway Board
- (ii) ED/Wagon/RDSO/LKO

(Jayant Kumar)
GGM/Mech-II



75
आजादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SD/RS/09/HERCULESRGV20

New Delhi, Dated 05.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub : Condonation of infringement to Indian Railway Schedule of Dimensions (BG) Revised 2004 by (i) height of floor (unloaded 1651mm/loaded 1647mm), (ii) bogie centers (16002.3mm) & (iii) distance between axles (14028.3mm) as per drawing no.5123709 for Switch Rail Grinding Machine (SRGM), Model no. "HERCULES RGV20", supplied by M/s Harsco Rail, USA

Ref: (i) RDSO's letter no. CT/TMM/GENERAL, dated 05.05.2022

(ii) CCRS office letter no. Q.14011/03/2022-23-TW, dated 17.06.2022

With reference to your above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement to Indian Railway Schedule of Dimensions (BG) Revised 2004 by (i) height of floor (unloaded 1651mm/loaded 1647mm), (ii) bogie centers (16002.3mm) & (iii) distance between axles (14028.3mm) as per drawing no.5123709 for Switch Rail Grinding Machine (SRGM), Model no. "HERCULES RGV20", supplied by M/s Harsco Rail, USA, as shown in details enclosed with above mentioned applications, details of infringements as under :

- i. **Clause 9** – Maximum height above rail level for floor of any unloaded vehicle, by 306mm in unloaded/302mm in loaded condition (i.e.1651mm/1647mm instead of 1345mm).
 - ii. **Clause 17** – Maximum distance apart of bogie centers for bogie vehicles, by 1102.3mm (i.e.16002.3mm instead of 14900mm).
 - iii. **Clause 21** – Maximum distance apart between any two adjacent axles, by 1683.3mm (i.e.14028.3mm instead of 12345mm).
2. It is noted that Unique Transportation code of the proposed machine is not available. RDSO is advice to issue Speed Certificate of above Machine with the Transportation code.

(Signature)
(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No. 011-23047598]

e-mail address: dceg@rb.railnet.gov.in

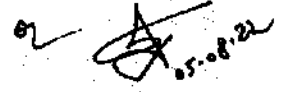
(Signature)
05/08/22
Issue with enclosure
Signature
Date of Issue

No. 2022/CEDO/SD/RS/09/HERCULESRGV20

New Delhi, Dated 05.08.2022

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-I w.r.t. his endorsement No. Q.14011/03/2022-23-TW, dated 17.06.2022
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, Manak Nagar, Lucknow
4. EDTk(M&MC)/Railway Board, New Delhi



(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/23/BOBRNALHSM1-21.82-IR-DFCCIL

New Delhi, Dated 05.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type '**BOBRNALHSM1**' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.14 up to a maximum speed of 65 kmph in empty and 60 kmph in loaded conditions over IR B.G. routes, by Zonal Railways and up to a maximum speed of 65 kmph in both empty and loaded conditions over Eastern & Western Freight Corridor of DFCs routes, by DFCCIL

Ref: (i) RDSO's letter no. MW/BOBRN, dated 24.03.2022

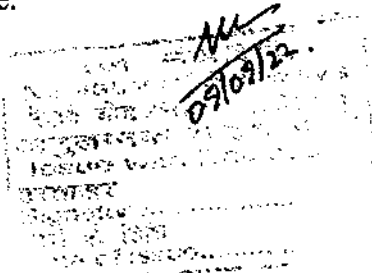
(ii) CCRS office letter No. Q.12011/01/2022-23-T.W, dated 04.08.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type '**BOBRNALHSM1**' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.14 up to a maximum speed of 65 kmph in empty and 60 kmph in loaded conditions over IR B.G. routes, by Zonal Railways and up to a maximum speed of 65 kmph in both empty and loaded conditions over Eastern & Western Freight Corridor of DFCs routes, by DFCCIL, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

3. *Railway Board may issue condonation of infringement of the proposed rolling stock in terms of IRSOD (BG) Revised 2022 for the new transportation code BOBRNALHSM1 before according sanction for its introduction over IR & DFC routes*
5. *Drawing no. WD-91071-S-01 shall be redrawn as per IRSOD 2022.*

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.



(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

200

No. 2022/CEDO/SR/23/BOBRNALHSM1-21.82-IR-DFCCIL

New Delhi, Dated 05.08.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Fr) Railway Board

 05.08.2022
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in



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

फोन / P.H.: 0622-2233087, 2233108 (P&T)
N.E.Rly. 31-148, N.Rly. 23-280
फैक्स / Fax: 0622-2233085, 2233087
E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, म.रे.प्र. कार्यालय परिसर
18, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
18, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/01/2022-23-तवि

दिनांक-04.08.2022

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.14 up to a maximum speed of 65 kmph in empty and 60 kmph in loaded conditions over IR B.G. routes and up to a maximum speed of 65 kmph in both empty and loaded conditions Eastern and Western Dedicated Freight Corridors of DFCCIL

- संदर्भ: (i) DG/RDSO's letter No. MW/BOBRN, dt 30.03.2022
(ii) RDSO's Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022
(iii) This office's letter of even no. dated 21.04.2022
(iv) RDSO's letter no. MW/BOBRN, Dated 19.07.2022

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 65 kmph in empty and 60 kmph in loaded conditions over IR B.G. routes and up to a maximum speed of 65 kmph in both empty and loaded conditions Eastern and Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was requested to furnish certain clarifications on the subject case. RDSO vide reference (iv) [copy enclosed] submitted its reply.

Case has been examined by this office in light of abovementioned documents/clarifications and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.14 up to a maximum speed of 65 [SIXTY FIVE] kmph in empty and 60 [SIXTY FIVE] kmph in loaded conditions over IR B.G. routes and up to a maximum speed of 65 [SIXTY FIVE] kmph in both empty and loaded conditions Eastern and Western Dedicated Freight Corridors of DFCCIL with conditions mentioned in Annexure.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.08.04
13:30:39 +05'30'

संलग्नक: सशोधक

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

प्रतिलिपि:

महानिदेशक (माल डिब्बा)
माल डिब्बा निदेशालय (एनेक्सी-1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Broad Gauge Bogie Open Rapid Bottom Discharge Coal Hopper wagon type 'BOBRNALHSM1' [Maximum Axle Load:21.82t] to RDSO's Drawing No. WD-91071-S-01 Alt.14 up to a maximum speed of 65 kmph in empty and 60 kmph in loaded conditions over IR B.G. routes and up to a maximum speed of 65 kmph in both empty and loaded conditions Eastern and Western Dedicated Freight Corridors of DFCCIL

1. Observance of all conditions laid down in Provisional Speed Certificate (PSC) no. MW/BOBRN, dated 16.03.2022 and its Amendment no. 1 dated 15.07.2022. Remarks of the Railway against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
3. Railway Board may issue condonation of infringement of the proposed rolling stock in terms of IRSOD (BG) Revised 2022 for the new transportation code BOBRNALHSM1 before according sanction for its introduction over IR & DFC routes
4. Zonal Railways shall ensure that stipulation mentioned in Para 3.6.1.6 & 3.6.1.7 of the Provisional Speed Certificate (PSC) are followed in field.
5. Drawing no. WD-91071-S-01 shall be redrawn as per IRSOD 2022.
6. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
7. No overdue in track/rolling stock maintenance shall be permitted.

Ahmad
Nadeem
Siddiqui

Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.08.04
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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2021/CEDO/SR/24

New Delhi, Dated 02.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 12' high containers (3658mm height and 2438mm width) in single stack in empty and loaded condition, on 20.32t axle load, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of 75 kmph over DSDC routes of IR, by Zonal Railways and Eastern & Western Freight Corridor of DFCs routes, by DFCCIL

Ref: (i) RDSO's letter no. MW/Container, Dated 03.09.2021
(ii) CCRS office letter No.Q.12011/13/2021-22/ T.W. dated 08.10.2021

While processing the above cited case for the sanction of the Railway Board for introduction of 12' high containers (3658mm height and 2438mm width) in single stack in empty and loaded condition, on 20.32t axle load, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of 75 kmph over DSDC routes of IR, by Zonal Railways and Eastern & Western Freight Corridor of DFCs routes, by DFCCIL, Member(O&BD), has passed following remarks, reproduced as under:

In case of 12' high containers, not just the height but width is also less than dwarf containers. Therefore, the proposal should be revised accordingly as suggested by EDTT/S

{EDTT/S's suggestion :- In the proposal for introduction of 12' high containers, routes proposed are Eastern and Western DFC and DSDC approved routes. Here it is pointed out that the height of 12' containers is 3658 mm which is less by 200 mm when compared with double stack dwarf containers (3860 mm). There may be routes on IR which are currently not fit for DSDC movement but may be fit for running 12' containers as the height is less by 200 mm. On IR only 7 routes are notified for running DSDC and restricting 12' containers to only these routes will reduce the viability and acceptability of this new container design. Hence, it is suggested that the proposal may be revised accordingly}

RDSO is requested to examine the issues involved and submit comments at the earliest.

dlr

अजीत कुमार झा
(अजीत कुमार झा) 2.8.22

कार्यपालक निदेशक सिविल इंजीनियरिंग (जी)/ रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address : edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/24

New Delhi, Dated 02.08.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Freight) Railway Board

Stamp and signature of the Director General, RDSO, Lucknow.



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/22/SRGM-RGI-20

New Delhi, Dated 01.08.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 upto maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) RDSO's letter no. DG/RDSO's letter No. TM/HM/11/52/SRGM-LORAM, dated 18.05.2022

(ii) CCRS office letter No. Q.12011/09/2022-23-T.W, dated 29.07.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 upto maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. Railway Board may issue suitable guidelines regarding training to be imparted to the operator(private person) & the qualification of the Railway staff accompanying the machine for calling out the signals & rendering other assistance during operation & movement of the machine.
2. Railway Board/Zonal Railway must prepare and issue a schedule for testing of safety related features such as Fire detection System, E-Stops, Brake Systems, Train Alert Buttons etc.
3. It shall be ensured that staff working with SRGM should wear protective gear such as Helmets, goggles. Reflective jackets, shoes etc. during operations.
4. Movement of any train with inflammable material shall not be permitted on the adjacent line where grinding work is being carried out.

11/08/22
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5. Four rachets have been provided for lifting the buggies in case of failure of hydraulic system. Two extra rachets should be provided as a standby arrangement to be used as a replacement in case of failure of existing rachets.
6. During working of SRGM, it shall be ensured that all the earth bonds are maintained below the rail level as these may infringe the KLD cameras (Laser Camera) and grinding motors.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

11/08/22
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी),रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/22/SRGM-RGI-20

New Delhi, Dated 01.08.2022

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&Mc) Railway Board

11/08/22
(गौरव)

निदेशक सिविल इंजीनियरिंग(जी),रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

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भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/फैक्स: 22330087, 2233108 (पब्लिक)
M.E.Rly. 31-140, M.Rly. 23-290
फैक्स/फैक्स: 22330085, 22330087
E-mail: chiefcra@rediffmail.com

206

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/09/2022-23-त.वि.

दिनांक-29.07.2022

सेवा में
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[बिना संलग्न (G)]

विषय: Introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 upto maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL.

- संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/52/SRGM-LORAM, dt. 18.05.2022
(ii) RDSO's Provisional Speed Certificate no. TM/HM/11/52/SRGM-LORAM, dt. 04.02.2022 and its Amendment no. 1 dt. 14.06.2022
(iii) This office's letter of even no. dt. 09.06.2022
(iv) RDSO's letters no. TM/HM/11/52/SRGM-LORAM, dt. 15.06.2022 and 20.06.2022

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock upto a maximum speed of 65 kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) [copies enclosed].

Statutory inspection of the subject rolling stock was carried out by CRS/SC on 12/07/2022 at Zonal Track Maintenance Depot, Cavalry Barracks, Hyderabad Division. Inspection report of the rolling stock is enclosed as Annexure-1.

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" supplied by M/s LORAM, USA to manufacturer General Arrangement Drawing No. 246953 upto maximum speed of 65 [SIXTY FIVE] kmph when running on its own power as well as when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL with conditions mentioned in Annexure-2.

Observations from CRS/SC Inspection Report about 'Measures to be taken before introduction of Switch Rail Grinding Machine (SRGM) Model "RGI Series 20 Rail Stone Grinder" are enclosed as Annexure-3. The compliance of the same should also be submitted to the Commission.

Further, 'Measures for future improvement of the subject rolling stock' are attached as Annexure-4.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
Siddiqui
Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.07.29
17:33:38 +05'30'
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथावत
प्रतिलिपि:
महानिदेशक (ट्रेक मशीन)
ट्रेक मशीन निदेशालय
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानकनगर, लखनऊ-226011

**Measures to be taken before introduction of Switch Rail Grinding Machine (SRGM) Model
"RGI Series 20 Rail Stone Grinder"**

Statutory inspection of the subject rolling stock was carried out by CRS/SC on 12/07/2022 at Zonal Track Maintenance Depot, Cavalry Barracks, Hyderabad Division. Para 2 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

1. Railway Board may issue suitable guidelines regarding training to be imparted to the operator (private person) & the qualification of the Railway staff accompanying the machine for calling out the signals & rendering other assistance during operation & movement of the machine.
2. Railway Board/Zonal Railway must prepare and issue a schedule for testing of safety related features such as Fire detection System, E-Stops, Brake Systems, Train Alert Buttons etc.
3. It shall be ensured that staff working with SRGM should wear protective gear such as Helmets, goggles, Reflective jackets, shoes etc. during operations.
4. Movement of any train with inflammable material shall not be permitted on the adjacent line where grinding work is being carried out.
5. Four rachets have been provided for lifting the boggies in case of failure of hydraulic system. Two extra rachets should be provided as a standby arrangement to be used as a replacement in case of failure of existing rachets.
6. During working of SRGM, it shall be ensured that all the earth bonds are maintained below the rail level as these may infringe the KLD cameras (Laser Camera) and grinding motors.

Ahmad
Nadeem
Siddiqui

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by Ahmad
Nadeem Siddiqui
Date: 2022.07.29
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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/16/Cube/BLCM

New Delhi, dated 29.07.2022

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of Non-ISO Gati Shakti (Cube) containers (2730mm high, 2600mm wide and 2000mm long) on 22t axle load, Broad Gauge Bogie Container Flat wagon type BLCM (A-Car & B-Car) to RDSO's Drawing Nos. WD-22005-S-01 Alt.2 for A-Car & WD-22005-S-02 Alt.2 for B-Car up to a maximum speed of 100 kmph in single stack in empty and loaded condition over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/27/2021-22-T.W/BLCM, dated 01.06.2022
(ii) RDSO's letter no. MW/CONTR/ISO/BG/FLAT, dated 25.01.2022
(iii) RDSO's letter no. MW/Container, dated 07.06.2022
(iv) RDSO's Final Speed Certificate (FSC) no. MW/CONTAINER (BLCM/Cube) dated 25.01.2022 & its Amendment No. 1 dated 07.06.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Non-ISO Gati Shakti (Cube) containers (2730mm high, 2600mm wide and 2000mm long) on 22t axle load, Broad Gauge Bogie Container Flat wagon type BLCM (A-Car & B-Car) to RDSO's Drawing Nos. WD-22005-S-01 Alt.2 for A-Car & WD-22005-S-02 Alt.2 for B-Car up to a maximum speed of 100 kmph in single stack in empty and loaded condition over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs, by DFCCIL with the following stipulations :

- Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of Non-ISO Gati Shakti (Cube) containers in single stack on BLC/BLCM/BLCS/BLL/BLLM (Car- A & B) wagons in electrified territory.

29.07.22

- ii. Railway shall ensure that loading in each Non-ISO Gati Shakti (Cube) container is done up to specified payload of 2.5t only.
- iii. Observance of all conditions laid down in Final Speed Certificate (FSC) no. MW/CONTAINER (BLCM/Cube) dated 25.01.2022 & its Amendment No. 1 dated 07.06.2022 for operation up to a maximum speed of 100 kmph in single stack in empty and loaded condition, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- v. Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, Para no. 7.8.9 shall be followed.
- vi. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
- vii. No overdue in track/rolling stock maintenance shall be permitted

29.7.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/16/Cube/BLCM

New Delhi, dated 29.07.2022

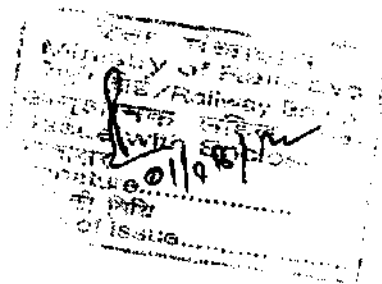
Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/27/2021-22-T.W/BLCM, dated 01.06.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

29.7.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





210



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/15/Cube/BLC

New Delhi, dated 29.07.2022

The Director General
Research Designs & Standards
Organisation
Manak Nagar,
Lucknow-226011

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Supreme Court,
Metro Station Building Complex,
New Delhi - 110001

Sub: Introduction of Non-ISO Gati Shakti (Cube) containers (2730mm high, 2600mm width, 2000mm long) on 20.32t axle load, Broad Gauge Bogie Container Flat wagon type BLC (A-Car & B-Car) to RDSO's Drawing Nos. WD-22005-S-01 Alt.2 for A-Car & WD-22005-S-02 Alt.2 for B-Car for operation up to a maximum speed of 100 kmph in single stack in empty and loaded condition over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL

Ref: (i) CCRS office letter no. Q.12011/26/2021-22-T.W/BLC, dated 01.06.2022
(ii) RDSO's letter no. MW/CONTR/ISO/BG/FLAT, dated 25.01.2022
(iii) RDSO's letter no. MW/ Container, dated 07.06.2022
(iv) RDSO's Final Speed Certificate (FSC) no. MW/CONTAINER (BLC/Cube) dated 25.01.2022 & its Amendment No.1 dated 07.06.2022

With reference to RDSO above application, sent through Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of **Non-ISO Gati Shakti (Cube) containers (2730mm high, 2600 mm width, 2000mm long) on 20.32t axle load, Broad Gauge Bogie Container Flat wagon type BLC (A-Car & B-Car) to RDSO's Drawing Nos. WD-22005-S-01 Alt.2 for A-Car & WD-22005-S-02 Alt.2 for B-Car for operation up to a maximum speed of 100 kmph in single stack in empty and loaded condition over Indian Railway, by Zonal Railways and over routes of Eastern & Western Dedicated Freight Corridor of DFCs by DFCCIL with the following stipulations :**

- i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of Non-ISO Gati Shakti (Cube) containers in single stack on BLC/BLCM/BLCS/BLL/BLLM (Car- A & B) wagons in electrified territory.

29.07.22

- ii. Railway shall ensure that loading in each Non-ISO Gati Shakti (Cube) container is done up to specified payload of 2.5t only.
- iii. Observance of all conditions laid down in Final Speed Certificate (FSC) no. MW/CONTAINER (BLC/Cube) dated 25.01.2022 & its Amendment No.1 dated 07.06.2022 for operation up to a maximum speed of **100 kmph in single stack in empty and loaded condition**, shall be ensured on the Railway/DFCs while seeking the sanction of General Manager/MD-DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFCs. All the documents required for the sanction of General Manager/MD-DFCCIL as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure
- iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
- v. Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, Para no. 7.8.9 shall be followed.
- vi. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
- vii. No overdue in track/rolling stock maintenance shall be permitted

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(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/15/Cube/BLC

New Delhi, dated 29.07.2022

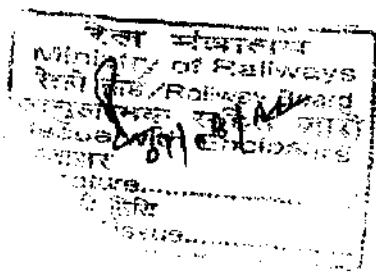
Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/26/2021-22-T.W/BLC, dated 01.06.2022
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

७७ २९.०७.२२

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

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Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/18/MEMU-IGBT- 8/12/16Car

New Delhi, Dated 28.07.2022

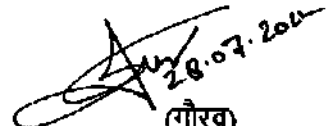
The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020.

Ref: (i) Board's letter of even no. dated 19.07.2022
(ii) RDSO's letter no. MC/MEMU/3-Phase, dated 11.05.2022
(iii) CCRS office letter No. Q.12011/09/2018-19-T.W, dated 16.07.2022

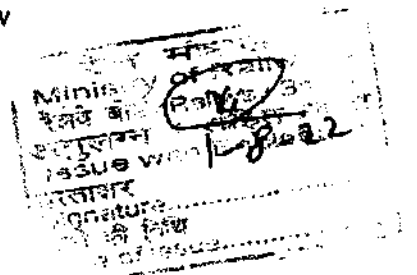
In continuation to Railway Board's letter of even no. dated 19.07.2022, it is further observed that for increasing maximum speed up to 110 kmph, "modified suspension system having pneumatic suspension in secondary stage" is being adopted for above cited stocks with new Transportation Codes Code MEMUDUHS & MEMUTUHS, but Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 for DMC & TC respectively remains unchanged.

RDSO is requested to examine the issues involved and submit comments at the earliest.


(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Coaching) Railway Board





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आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

75
Azadi Ka
Amrit Mahotsav

No. 2022/CEDO/SR/18/MEMU-IGBT- 8/12/16Car

New Delhi, Dated 19.07.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020.

Ref: (i) RDSO's letter no. MC/MEMU/3-Phase, dated 11.05.2022

(ii) CCRS office letter No. Q.12011/09/2018-19-T.W, dated 16.07.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

6. Stipulation mentioned in Para 5, 12, 17 & 22 of Annexure-2 of this office letter no. Q.12011/09/2018-19-T.W. dated 07.05.2019 shall be complied before commercial operation of subject rolling stock upto 110 Kmph.
- v. All danger boards in passenger areas are only in English. These are only stickers. Tri-lingual Danger boards should be stencilled wherever required in all passenger areas which is a requirement as per Electricity Act.
- xii. Provision of Smoke detecting device can be tried inside HT compartment on a trial basis. In case smoke detected, an alarm and lamp display shall appear on the drivers desk for early detection of smoke.

eh

19.07.22

214

47/53

1213586/2022/CEDO SECTION

2022/CEDO/SR/18/MEMU-IGBT-8/12/16Car

- xvii LED display board is presently available on the top side of the MEMU rake, just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.
- xxii Possibly needs to be explore for Passenger Emergency Communication System for passengers to talk to motorman.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

19.07.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/18/MEMU-IGBT- 8/12/16Car

New Delhi, Dated 19.07.2022

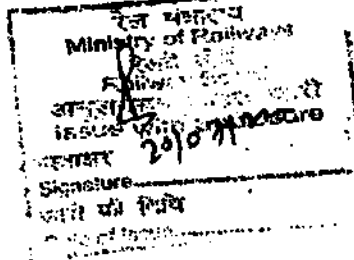
Copy forwarded for information to :

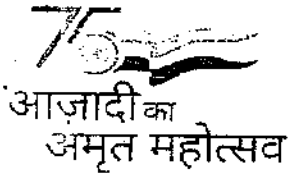
1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
- 3/ EDME(Coaching) Railway Board

19/7/22

19.07.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in





भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2021/CEDO/SD/IRSOD2021

New Delhi, Dated 27.07.2022

As per list attached

Sub:- Indian Railways Schedule of Dimensions, 1676 Gauge, BG, Revised, 2022

1. Indian Railways Schedule of Dimensions, 1676 Gauge, BG, Revised- 2004 was published in year 2004.
2. Numbers of amendments have been issued to Indian Railways Schedule of Dimensions (BG) Revised, 2004. It was, therefore, considered necessary to revise Indian Railways Schedule of Dimensions (BG) (IRSOD)
3. Board (MOBD, MTRS, MI) has approved new Indian Railways Schedule of Dimensions (BG) Revised, 2022, incorporates the various provision as under:
 - i) Advance Correction Slips No. upto 32.
 - ii) New provisions for minimum wheel diameter of 840mm for goods vehicle along with minimum floor height/coupler & CBC height.
 - iii) Maximum diameter of 1250mm for locomotive.
 - iv) New chapter on Track Machines.
4. The IR-SOD Revised, 2022 has been uploaded on Railway Board's website. It may be accessed through the following path:
www.indianrailways.gov.in/railwayboard >> "About Indian Railways" >> "Railway Board Directorates" >> "Civil Engineering" >> "10. IRSOD" >> Document.

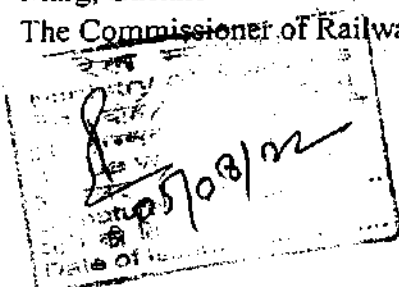
6/8

अजीत कुमार झा
27.7.22
(अजीत कुमार झा)

कार्यपालक निदेशक/सिविल इंजी. (जी)/रेलवे बोर्ड
[Phone: 030-44803: Rly: 011-23383379:MTNL]
e-mail address : edceg2022@gmail.com

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow
2. The Commissioner of Railway Safety, All Circles



LIST FOR DISTRIBUTION (No. 2021/CEDO/SD/IRSOD2021, Dated 27.07.2022)

1. General Managers, All Indian Railways & Production Units
2. General Manager (Con), N.F. Railway, Guwahati
3. General Manager /CORE, Allahabad.
4. Chief Administrative Officers (Con), All Indian Railways (Except N.F. Railway)
5. Principal Chief Engineers, All Indian Railways
6. PFAs, All Indian Railways
7. THE Deputy Controller & Auditor General of India (Railways), Room No. 224, Rail Bhawan, New Delhi

(A)

1. CAO, COFMOW, Tilak Bridge, New Delhi
2. Principal CAO, Diesel Loco Modernization Works, Patiala (Punjab)
3. CAO (Workshop Projects), Chamber Bhawan, Judge's Court Road, Anta Ghat, Patna-800001, Bihar

(B)

1. Director General, RDSO, Manak Nagar, Lucknow
2. Director General, NAIR, Vadodara
3. Director, IRICEN, Pune - 411 001 (Maharashtra)
4. Director, IRIEN, PB No.-233, Nasik Road-422101 (Maharashtra)
5. Director, IRISSET, Taa Naka Road, Lalla Guda, Secunderabad-500017
6. Director, IRIMEE, Jamalpur Distt-Jamalpur, PIN-811214 (Bihar).
7. Director, IRITM, Sarswati Residential Estate, IRITM Campus, Manak Nagar, Lucknow

(C)

1. MD, CONCOR, Concor Bhawan, C-3, Mathura Road, Opp. Apollo Hospital, New Delhi- 110076.
2. IRCON International Limited, C-4, District Centre, Saket, New Delhi- 110017
3. MD, RITES Ltd., RITES Bhawan, Plot No.1, Sector-29, Gurgaon.
4. CMD, RVNL, August Kranti Bhawan, Plot No.25, 1st Floor, Bhikaji Cama Place, New Delhi.
5. MD, MRVC Ltd., Churchgate Station Bldg, Mumbai- 400020
6. CMD, KONKAN Railway Corporation Ltd, Rail Bhawan, New Delhi-110001.
7. MD, DFCCIL, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi-110001
8. MD, RLDA, Near Safdarjung Railway Station, Moti Bagh, Phase-I, New Delhi- 110021
9. MD, CRIS, Chanakyapur, New Delhi.
10. CMD, RailTel Corporation of India Ltd. Plot No. 143, Institutional Area, Sector-44, Gurgaon - 122003.
11. CME, IROAF, 12th Floor, Core-I, Scope Minar, Distt. Centre, Laxmi Nagar, Delhi- 110092
12. Managing Director, IRFC Limited, UG Floor, East Tower, NBCC Place, Bhisham Pitamah Marg, Lodhi Road, Pragati Vihar, New Delhi.
13. CMD, IRCTC Ltd., B-148, 11th Floor, Statesman House, Barakhamba Road, New Delhi 110001
14. CMD, Braithwaite & Co. limited, 5 Hide Road Kolkata 700043.

Copy to:

(A)

1. General Secretary, IRCA, DRM Office, New Delhi.
2. General Secretary, AIRF, Rail Bhawan, New Delhi
3. General Secretary, NFIR, Rail Bhawan, New Delhi
4. General Secretary, IRPOF, Rail Bhawan, New Delhi
5. General Secretary, FROA, Rail Bhawan, New Delhi
6. General Secretary, AIRPA, Rail Bhawan, New Delhi
7. General Secretary, AISC & STREA, Rail Bhawan, New Delhi
8. The Secretary, RBSS, Group (A) Offices Association, Rail Bhawan
9. The Secretary, RBSS, Group (B) Offices Association, Rail Bhawan
10. General Secretary, RBSSS Association, Rail Bhawan
11. The Secretary, RBMSA, Rail Bhawan
12. The Secretary, Railway, Group (D) Employees Association, Rail Bhawan

(B)

1. Concerned PSO for kind information of Chairman cum CEO, M/Infra, M/T&RS M/O&BD, M/Finance, Railway Board
2. Adv./MR, EDPG/MR, OSD/MR, OSR(Co-ord)/MR
3. Chief Vigilance Officers, All Indian Railways.
4. DG(RHS), DG(RPF), AM(CE), AM(Works), AM(B), AM(Elec.), AM(RS), AM(ME), AM/Tele, AM/C&IS, AM/Sig., AM(Plg.), PED(B&S), PED(Vigilance), PEDCE(P), EDCE(G), EDTK(M&MC), EDCE(B&S), EDF(X)-I, EDF(X)-II, ED(Works), EDW(Plg.), ED/Project(Mon.), ED(L&A), ED(PSU), EDVE, ED(Safety), ED(Sig. Dev.), ED(Tele), EDRS(G), EDRE, EDEE(G), EDFE, EDE(N), ED(Accounts), ED/T&MPP, EDME(Chg.), EDME(Frt.), ED/Plg., JS(conf), JS(P), JS(G), JS(D), Vigilance-III, Vig(Conf) of Railway Board.

27/7/22



No. 2022/CEDO/IRSOD/HRIDC/O

New Delhi, dated 21.07.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

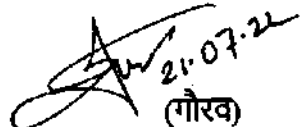
Sub: Standard Dimensions for Tunnels in HORC project fitted with ROCS arrangement for High Rise OHE

Ref: HRIDC letter No. HORC/Railway Board/2022/923, dated 14.07.2022

Please find enclosed herewith application from Director(P&P), HRIDC, GGN, referred above, requested to examine and finalize the fixed structure gauge for HORC tunnel with ROCS.

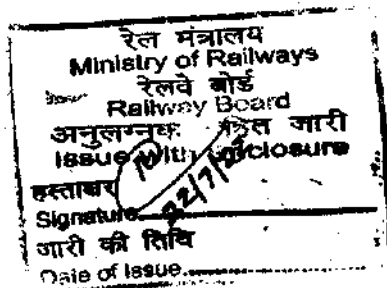
RDSO is requested to examine the issue and take necessary action accordingly, if needed.

DA: as above


(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47593, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

Copy to ED Standrds (Track-1), RDSO, Lucknow, for information and necessary action please.

o/c





(218)

हरियाणा रेल इन्फ्रास्ट्रक्चर डेवलपमेंट कॉर्पोरेशन लिमिटेड
(हरियाणा सरकार और रेल मंत्रालय का संयुक्त उपक्रम)
Haryana Rail Infrastructure Development Corporation Ltd.
(A Joint Venture of Govt. of Haryana & Ministry of Railways)

HORC/RailwayBoard/2022/923

14.07.2022

Executive Director/CE (G),
Railway Board,
Rail Bhawan,
New Delhi-110001

Sub: Standard Dimensions for Tunnel in HORC project fitted with ROCS arrangement for High Rise OHE.

- Ref:** (i) RDSO Letter No. RDSO-TILKO(OHE)/47/2020-O/oPED/TI/RDSO, Dated: 22.09.2020.
(ii) HRIDC Letter No. HORC/Railway Board/2022/721, 812, Dated: 31.03.2022 & 18.05.2022.
(iii) HRIDC Letter No. HORC/RLY/GGN/2021/604, Dated: 04.01.2022.

1. The matter regarding the adoption of fixed structure gauge for the HORC tunnel is under deliberation with RDSO. The height of fixed structure gauge in case of provision of the ROCS for high rise OHE was deliberated by Dir/BD&F/HRIDC with ED/TI/RDSO on 28.06.2022. As advised by RDSO, a sketch showing the fixed structure gauge for tunnel with ROCS for High Rise OHE has been prepared & enclosed as Annexure-1.
2. The ROCS arrangement has been prepared based on the guidelines issued for ROCS by RDSO vide the Instruction No. TI/IN/0041 and also on the ROCS arrangement used by DMRC (attached as Annexure 2 for reference).
3. The salient dimensions for the proposed ROCS arrangement, as per the drawing attached as Annexure-1, are as follows:

Feature	Proposed Dimension
Height of Fixed Structure Gauge from Rail Level	8050 mm
Height of Contact wire considered in Tunnel from Rail Level. (Details of Calculations given in note-1 of the Drawing)	7478 mm at support
Implantation for ROCS fixing arrangement	1025 mm
Electrical clearance of topmost charged portion w.r.t Fixed Structure Gauge	308mm

4. RDSO may be requested to kindly examine and finalize the fixed structure gauge for HORC tunnel with ROCS.

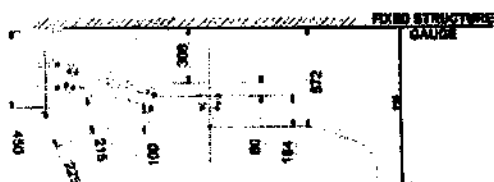
DA:- As above

(Narinder D. Chumber)
Director (P&P)
HRIDC, Gurugram

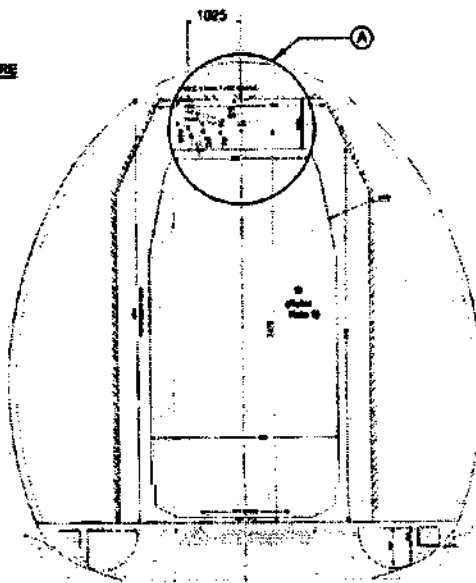
Copy to: Executive Director Standard/Track-I, RDSO, Lucknow-226011, for information and necessary action.

Plot No.143, 5th floor RailTel tower, Sector-44, Gurugram, Haryana 122003
E-mail: horc.spv@gmail.com Website: www.hridc.co.in

Provision of ROCS for High-Rise OHE for HORC Tunnel



DETAILS OF 'A'



Annexure-2

NOTES

1. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel.
2. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel.
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5. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel. The ROCS shall be provided for High-Rise OHE for HORC Tunnel.

NAME / DESIGNATION	DATE	NAME / DESIGNATION	DATE
DPD/EST	10/10/2018	DPD/EST	10/10/2018
DPD/EST	10/10/2018	DPD/EST	10/10/2018
DPD/EST	10/10/2018	DPD/EST	10/10/2018

220

Annexure - 2

Tel. 26693084
Fax 26693085



दिल्ली मेट्रो रेल कॉर्पोरेशन लि0
DELHI METRO RAIL CORPORATION LTD.

(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)
Site Office of Chief Electrical Engineer/UG, Press Enclave Road, Near Saket, A Block Bus Stop
Malviya Nagar, New Delhi 110017

DMRC/Elect/UG/BE3 Lot-2/Corr. L&T/

11.02.09

M/s Larsen & Toubro LTD.
ECC Division
211, Okhala Industrial Estate, Phase-III
NEW DELHI 110020

Kind attention: Shri Rajkumar

SUB: Contract BE3Lot-2 - Preliminary Design Submission Rev. 04 for ROCS for Underground sections of Central Secretariat - Green Park - Saket (BG Line-2) and Central Secretariat - Jangpura (SG L-6).

Ref: LTCG/DLRO/TLRE/DMRC/227-S dated 05.02.09.

Dear Sir,

Enclosed please find herewith the "No Objection" certificate for the 25kV ROCS for Underground sections of Central Secretariat - Green Park - Saket (BG Line-2) and Central Secretariat - Jangpura (SG L-6) for your further necessary action.

Thanking you.

Yours faithfully

(A. K. Garg)

Chief Electrical Engineer/UG

दिल्ली मेट्रो रेल कॉर्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)
Site Office of Chief Electrical Engineer/UG, Press Enclave Road, Near Saket, A Block, New Delhi-110017

CERTIFICATE OR REVIEW OF PRELIMINARY DESIGN DOCUMENTS

No.DMRC/Elect/UG/BE3 Lot-2/Corr. L&T/

Date: 11.02.2009

Sub: Contract BE-3 Lot-2 – Preliminary Design Submission (Rev.4) for ROCS for underground sections of Central Secretariat – Green Park – Saket (BG Line -2) and Central Secretariat – Jangpura (SG L-6).

The document submission No. Rev.4 Preliminary Design for ROCS for underground section of Central Secretariat – Green Park – Saket (BG Line -2) and Central Secretariat – Jangpura (SG – Line -6) has been reviewed and "No Objection" is granted subject to following:

1. All clearances as per PS are achieved.
2. M/s. L&T to interface with RS-2 Contractor for achieving clearance from lowest part of Pantograph to Platform standing surface when train is at station as per EN 50122-1.
3. Approval of proto type of cantilever before mass manufacturing.
4. Submission of Report by Independent Agency for verification (Auditing) of design.
5. Contractor is responsible for ensuring conformity to technical, functional and contractual requirements as per tender specifications (BE-3 LOT-2).



(A.K. Garg)

Chief Electrical Engineer (UG)

222

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVERNMENT OF DELHI)
Joint Office of Chief Engineer (UG), Metro, Park Road, New Delhi - 110030.
Joint Office of Chief Engineer (L&T), Metro, Park Road, New Delhi - 110030.

DMRC/Elect/UG/BE-3 LOT-2/Corr. L&T/3522

Date: 06.07.2009

M. Larsen & Toubro Limited,
BE-3 Lot-2 Project Office,
Prem Singh Marg, Opposite DDA Park,
Lado Sarai, New Delhi - 110030.

Kind Attn: Mr. M.S. Kanyal, CPM

Sub: Contract BE-3 LOT-2 : Submission of definitive ROCS Design Rev.01 for underground sections of Central Secretariat – Green Park – Saket (BG Line-2) and Central Secretariat – Jangpura (SG Line -6).

Ref: L&T letter No.LTCG/DLRG/TLRE/DMRC/343-S dtd.10.06.09.

Dear Sir,

The definitive ROCS Design Rev.01 for underground sections of Secretariat – Green Park – Saket (BG Line-2) and Central Secretariat – Jangpura (SG Line -6) submitted vide letter under reference has been approved by the Competent Authority subject to submission of report by independent agency for verification (auditing) of design.

You are requested to submit 06 copies of the approved Definitive Design.

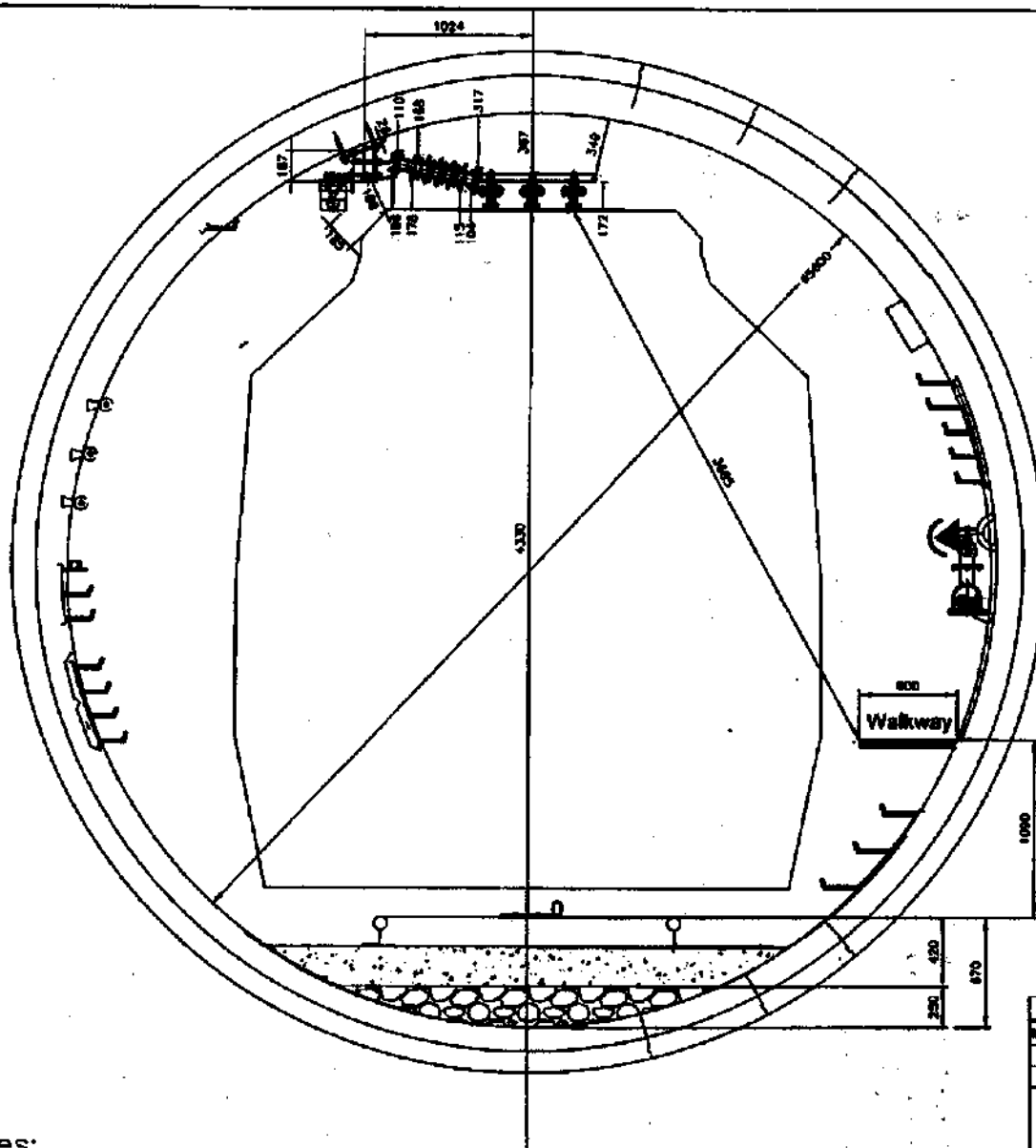
Notwithstanding the approval given above, the Contractor (BE-3 Lot-2) is responsible for ensuring conformity to technical, functional and contractual requirements as per Tender Specification.

Yours sincerely,


(B.P. Gupta) 6/7/09

Dy. Chief Electrical Engineer/UG-II

223



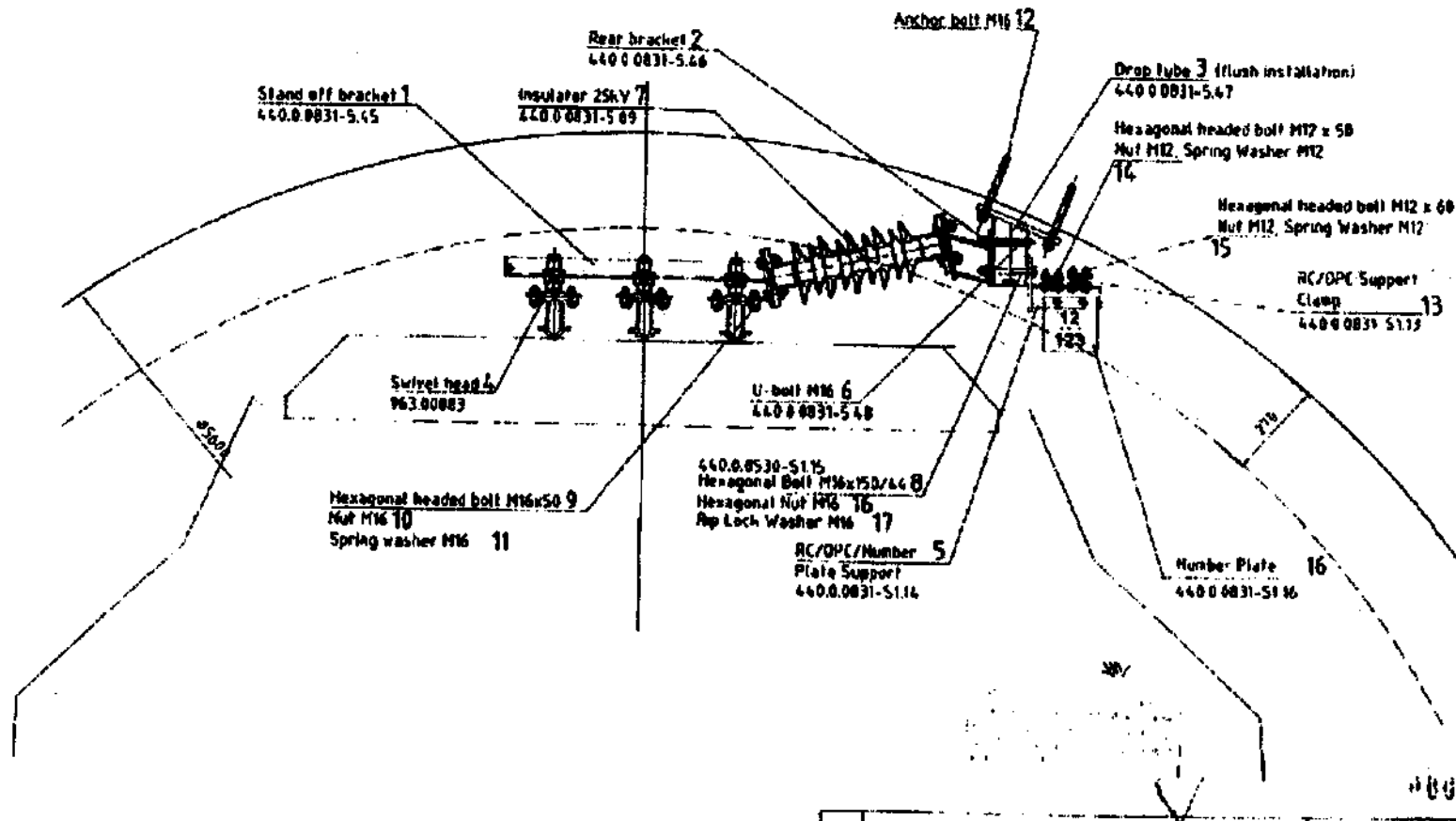
Notes:

1. For KE, DMRC SOD drawing MCBG-4
2. Contact height at support is maintained at 4330mm from TOR
3. Swivel head adjusted at middle position

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1	Roll Levels revised as per DMRC Note	20.01.08		
Index	Mod/Location	Date	View	Released
Material		Weight kg	Replaced by:	
Surface treatment		(mm)	Substitute for:	
Bored Tunnel Line-2 5600Dia BC16 & BC18, Broad Gauge, 670mm Rail Level		Scale	Drawn	20.01.08
		1:50	Checked	02.02.09
			Released	
Owner:		Order No.		
DELHI METRO RAIL CORPORATION LTD.		440.0.0530		
Contractor:		Art. No.		
Punjab & Frey		440.0.0530-S1.04		
CONTRACT:		BE-3 LOT-2	Size	1
			A-3	

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



Notes:

- 1 Normally, the drop tube plate will be flushed to the tunnel soffit, however, if required, a gap of upto 40mm can be maintained between drop tube plate and tunnel soffit
- 2 The drawings are developed with swivel head at middle position. There is a provision in the swivel head to move up or down by 25mm from this middle position without moving the drop tube.

Index		Modification		Date	Drawn	Checked	Reviewed
Material		Weight kg		Replaced by			
Surface treatment		Substitute for					
Conductor Rail Support Typical Arrangement - Board Tunnel							
Client		Scale		Drawn	20.10.13	SA	
DELHI METRO RAIL CORPORATION LTD.		Free		Checked	12.12.13	SA	
Contractor		Revised		Revised	14.12.13	BAO	
Furrer & Frey		Order No.		440.0.0831			
CONTRACT: CE-08 LOT-2		Art. No.					
A-3		440.0.0831-5.15					

224



225

आज़ादी का
अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

आज़ादी का
अमृत महोत्सव

No. 2022/CEDO/SR/21/MDU MFS 120

New Delhi, Dated 19.07.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 up to a maximum speed of 65 kmph when running in train formation as a ded vehicle over Indian Railways and over routes of Easter & Western Dedicated Freight Corridors of DFCCIL.

Ref: (i) RDSO's letter no. HM/TM/11/36/MFS 120, dated 01.06.2022

(ii) CCRS office letter No. Q.12011/10/2022-23-T.W, dated 16.07.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt), supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 up to a maximum speed of 65 kmph when running in train formation as a ded vehicle over Indian Railways and over routes of Easter & Western Dedicated Freight Corridors of DFCCIL, has recommended certain measures (Annexure-3) to be taken before introduction of the above rolling stocks, reproduced as under:

- Track machine operators must be properly trained in the operation of MDU before issue of "Competency Certificate" and record of training imparted to them be kept.
- 25 kVA 'Danger Sign Board' made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/21/MDU MFS 120

New Delhi, Dated 19.07.2022

Copy forwarded for information to :

- Executive Director (Standards) Motive Power, RDSO, Lucknow
- Executive Director (Standards) Track-I, RDSO, Lucknow
- EDTK(M&Mc) Railway Board

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233067, 2233106 (P&T)
N.E.Rly. 31-148, N.Rly. 23-280
फैक्स/Fax: 0522-2233065, 2233067
E-mail: chhtcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या—Q.12011/10/2022—23—त.वि.

दिनांक—18.07.2022

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[प्रान्त:EDCE(G)]

विषय: Introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt) supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 up to maximum speed of 65 kmph when running in train formation as a dead vehicle over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

- संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/36/MFS120, Dated 27.05.2022
(ii) RDSO's Provisional Speed Certificate no. TM/HM/11/36/MFS120, Dated 21.02.2022 and its Amendment no. 1 dated 20.06.2022
(iii) This office's letter of even no. dated 14.06.2021
(iv) RDSO's letter no. TM/HM/11/36/MFS120, dated 22.06.2022 & 30.06.2022

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock upto a maximum speed of 65 kmph when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) [copy enclosed].

Statutory inspection of the subject rolling stock was carried out by CCRS on 08.07.2022 at Safdarjung Railway Station, Northern Railway. Inspection report of the rolling stock is enclosed as Annexure-1.

Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt) supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 upto maximum speed of 65 [SIXTY FIVE] kmph when running in train formation over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL with conditions mentioned in Annexure-2.

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt) are enclosed as Annexure-3. The compliance of the same should also be submitted to the Commission.

Further, 'Measures for future improvement of the subject rolling stock' are attached as Annexure-4.

This is issued with the approval of Chief Commissioner of Railway Safety.

Ahmad
Nadeem
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Digitally signed by
Ahmad Nadeem
Siddiqui
Date: 2022.07.18
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(अहमद नदीम सिद्दीकी)

उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:

महानिदेशक (ट्रेक मशीन)

ट्रेक मशीन निदेशालय

अनुसंधान, अधिकृत एवं मानक संगठन,

मानकनगर, लखनऊ-226011

Conditions to be ensured by the Railway for operation of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt) supplied by M/s Plasser, India to manufacturer General Arrangement Drawing No. SU126.40900.0.1 up to maximum speed of 65 kmph when running in train formation as a dead vehicle over Indian Railways and over routes of Eastern & Western Dedicated Freight Corridors of DFCCIL

1. It must be ensured that the loco, Ballast Cleaning Machine & Muck Disposal Units (MDUs) used in the formation clear the section after the block in one direction only to avoid subsequent signal failure due to mismatch in axle counter at both the end of the block section
2. Railway shall ensure adequate brake pressure & its certification when MDU Model-MFS120 is being hauled by loco/BCM.
3. Sensors for obstruction will apply brake in loco to stop hitting any structure, so MDU should in no case be moved with loose attachment without adequate brake pressure.
4. Block Working Rule for this machine in Integrated Maintenance Block must be clearly stipulated at HQ level to ensure that there is no obstruction to adjacent line and proper clearance of block is confirmed at the time of cancellation of block.
5. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/36/MFS120, Dated 21.02.2022 and its Amendment no. 1 dated 20.06.2022 for operation up to a maximum speed of 65 kmph in train formation. **Remarks of the Railway/DFCCIL against each Para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
6. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
7. While working on double/multiple line sections, Railway shall ensure that the machine or any of its parts does not infringe the adjoining structures/OHE masts or track. Train operation on adjacent tracks shall only be permitted after ascertaining safety of trains on these tracks.
8. Any part which is meant for operation/maintenance provided on the vehicle shall be in closed and locked down condition during movement and while standing under 25KV AC OHE no parts of the vehicle should extend beyond the MMD envelope. Minimum electrical clearance as per SoD shall also be ensured
9. Muck Disposal Unit shall be maintained as per instructions laid down by RDSO.

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Ahmad Nadeem
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Date: 2022.07.18
14:05:42 +05'30'

Measures for future improvement of Muck Disposal Unit MFS 120 (Retractable Conveyor Belt)

Statutory inspection of the rolling stock by the CCRS was carried out on 08.07.2022 at Safdarjung Railway Station, Northern Railway. Para 5 of CCRS Inspection Report which suggests the measures for future improvement of the machine is reproduced below for taking necessary action for their implementation:

- a. At present the stock is proposed to be operated at a speed of 65 Kmph based on the Provisional Speed Certificate issued by RDSO. Oscillation trial of the stock should be planned & conducted at the earliest and Final Speed Certificate issued to utilize its full speed potential.
- b. ACD device provided in the machine is designed to get activated when it touches the obstacle. In order to ensure that no damage is occurred either to the obstacle or machine, it must be ensured that machine should stop without hitting any fixed structure once obstruction has taken place.
- c. Hand operated hydraulic pump has been provided for retraction of discharge conveyor belt in case of failure of main engine. Feasibility of providing electrical pump may be explored in future design of the machine.

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Ahmad Nadeem
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DN: c=IN, o=CCRS, ou=CCRS, cn=Ahmad Nadeem
Siddiqui, email=ahmad.nadeem.siddiqui@ccrs.gov.in
14.06.2024 05:30'

Measures to be taken before introduction of Huck Disposal Unit MFS 120 (Retractable Conveyor Belt)

Statutory inspection of the rolling stock by the CCRS was carried out on 08.07.2022 at Safdarjung Railway Station, Northern Railway. Para 4 of CCRS Inspection Report which suggests the measures for improvement of inspected rolling stock is reproduced below for taking necessary action for their implementation:

- a. Track machine operators must be properly trained in the operation of MDU before issue of "Competency Certificate" and record of training imparted to them be kept.
- b. 25 KVA 'Danger Sign Board' made of retro reflective material must be pasted on both side of the machine at appropriate location for easy identification by the staff

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Ahmad Nadeem
Siddiqui
Date: 2022.07.16
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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/18/MEMU-IGBT- 8/12/16Car

New Delhi, Dated 19.07.2022

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020.

Ref: (i) RDSO's letter no. MC/MEMU/3-Phase, dated 11.05.2022

(ii) CCRS office letter No. Q.12011/09/2018-19-T.W, dated 16.07.2022

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of 8/12/16-car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage Layout Drg No. MEMU/DMC3-9-0-301 & MEMU/TC2-9-0-201 and Unique Transportation Code MEMUDUHS & MEMUTUHS for DMC & TC respectively up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions containing track geometry standards under Para 522 of Indian Railways Permanent Way Manual, June-2020, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

6. Stipulation mentioned in Para 5, 12, 17 & 22 of Annexure-2 of this office letter no. Q.12011/09/2018-19-T.W. dated 07.05.2019 shall be complied before commercial operation of subject rolling stock upto 110 Kmph.
 - v. All danger boards in passenger areas are only in English. These are only stickers. Tri-lingual Danger boards should be stencilled wherever required in all passenger areas which is a requirement as per Electricity Act.
 - xii. Provision of Smoke detecting device can be tried inside HT compartment on a trial basis. In case smoke detected, an alarm and lamp display shall appear on the drivers desk for early detection of smoke.

eh
K.07.22

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- xvii LED display board is presently available on the top side of the MEMU rake, just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.
- xxii Possibly needs to be explore for Passenger Emergency Communication System for passengers to talk to motorman.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

19.07.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/18/MEMU-IGBT- 8/12/16Car

New Delhi, Dated 19.07.2022

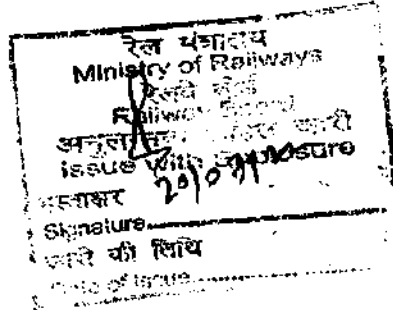
Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Coaching) Railway Board

Outcom
19/7/22

19.07.22

(गौरव)
निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-47598, MTNL No.-011-23047598]
e-mail address :dceg@rb.railnet.gov.in





नगर विमानन मंत्रालय

(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

(COMMISSION OF RAILWAY SAFETY)

फैक्स / Fax-0522-2233086, 2233087
E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, म.रे.प्र. कार्यालय परिसर

16, अशोक मार्ग, लखनऊ-226001

संख्या-Q.12011/09/2018-19-त.वि.

साथिव (सिविल इंजी.)

रेल मंत्रालय (रेलवे बोर्ड)

रेल भवन

नई दिल्ली

N.E. Railway, DRM OFFICE CAMPUS

16, Ashok Marg, Lucknow-226 001

दिनांक-16.07.2022

[व्याप्त:EDCE(G)]

विषय: Introduction of 8/12/16 car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage, upto a maximum speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522

- संदर्भ: (i) Director General/RDSO's letter No. MC/MEMU/3-Phase, dated 11.05.2022
(ii) RDSO's Final Speed Certificate No. MC/MEMU/3-Phase, dated 10.05.2022
(iii) Railway Board's letter no. 2019/CEDO/SR/09 dated 27.06.2019
(iv) This office's letter no. Q.12011/09/2018-19-T.W. dated 27.05.2022
(v) RDSO's letter no. MC/MEMU/3-Phase, dated 13.06.2022

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock upto a maximum speed of 110 kmph on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Earlier, Railway Board vide ref (iii), sanctioned operation of this rolling stock upto a maximum speed of 100 kmph. To enhance operational speed of subject rolling stock up to 110 kmph, modification in suspension system in bogie of MEMU coaches have been carried out.

Vide reference (iv) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (v) [copy enclosed].

Unique Transportation Code, Layout Drawing No., Tare weight, Gross Weight & Max. Axle Load of proposed coaches are as under:

SN	Type of coach	Unique Transportation Code	Layout Drawing No.	Max. Axle Load	Tare Weight	Gross Weight
1	Driving Motor Coach	MEMU/DMC3-9-0-301	MEMUDUHS	18.135 t	57.85 t	72.54 t
2	Trailer Coach	MEMU/TC2-9-0-201	MEMUTUHS	14.63 t	37.4 t	58.53 t

Based on the examination of documents/clarifications submitted by RDSO, the case is being forwarded to Railway Board with the recommendation for the sanction of the Central Government for operation of 8/12/16 car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage, upto a maximum speed of 110 [ONE HUNDRED TEN] kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522 with stipulations mentioned in Annexure.

This is issued with the approval of Chief Commissioner of Railway Safety.

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Siddiqui
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Date: 2022.07.16
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(अहमद नदीम सिद्दीकी)

उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि

महानिदेशक (संचारी विभाग)

संचारी विभाग निदेशालय (इलेक्सी-1)

अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-226011

[of CCRS Office's Letter No. Q.12011/09/2018-19-2.R, Dated 16.07.2022]

Conditions to be ensured by the Railway for operation of 8/12/16 car rake formation on-board MEMU stock having 3-phase IGBT based propulsion system with stainless steel car body modified suspension system having pneumatic suspension in secondary stage, upto a maximum speed of 110 kmph on track maintained as per provisions of IRPWM June-2020, containing track geometry standards under Para 522

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/MEMU/3-Phase, dated 10.05.2022. Remarks of the Railway against each Para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. As per Para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976-Rule 4.08 1(a).
3. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
4. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
5. All electrical equipment shall be maintained in good condition and necessary safety precautions shall be taken by Railways.
6. Stipulation mentioned in Para 5, 12, 17 & 22 of Annexure-2 of this office letter no. Q.12011/09/2018-19-T.W. dated 07.05.2019 shall be complied before commercial operation of subject rolling stock upto 110 Kmph.

Ahmad Nadeem
Siddiqui

Digitally signed by Ahmad Nadeem
Siddiqui
DN: cn=Ahmad Nadeem Siddiqui, o=CCRS, email=ahmad.nadeem@ccrs.gov.pk



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233087, 2233108 (F&T)
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E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मंत्र.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या-Q.12011/09/2018-19-स.वि.

दिनांक-07.05.2019

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[छानाई/EDCE(G)]

विषय: Introduction of 8-car formation MEMU stock having 3-phase IGBT based propulsion system with Stainless Steel Car body and having pneumatic suspension in secondary stage, up to a maximum speed of 100 kmph on track maintained to other than C&M-I, Vol.-I standard for use by any Railway.

- संदर्भ: (i) RDSO's letter No. MC/MEMU/3-Phase, Dated 12.02.2019
(ii) RDSO's Final Speed Certificate No. MC/MEMU/3-Phase, Dated 11.02.2019

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 100 kmph on track maintained to other than C&M I Vol.I Standard for use by any Railway on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Unique Transportation Code, Layout Drawing No., Tare weight, Gross Weight & Max. Axle Load of proposed coaches are as under:

SN	Type of coach	Unique Transportation Code	Layout Drawing No.	Max. Axle Load	Tare Weight	Gross Weight
1	Driving Motor Car	MEMU/DMC/IGBT	MEMU/DMC3-9-0-301	18.135 t	57.85 t	72.54 t
2	Trailer Car	MEMU/TC/IGBT	MEMU/TC2-9-0-201	14.633 t	37.4 t	58.53 t

Proposed train formation of 8-car formation MEMU stock is: DMC+TC+ TC+ TC+ TC+ TC+ TC+DMC.

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of 8-car formation MEMU stock having 3-phase IGBT based propulsion system with Stainless Steel Car body and having pneumatic suspension in secondary stage, up to a maximum speed of 100 [ONE HUNDRED] kmph on track maintained to other than C&M-I, Vol.-I Standard over Indian Railways with conditions mentioned in Annexure-1

Observations from CRS Inspection Report about few measures suggested for further improvement of subject rolling stock are enclosed in Annexure-2. These should be attended to the extent possible in the present 8-Car MEMU rake before its commercial introduction. In the subsequent rolling stock, efforts should be made to implement these suggestions in toto. The compliance of the same should also be submitted to the Commission.

This letter is issued with the approval of CCRS.

संलग्नक यथोक्त

प्रतिनिधि: महानिदेशक (सवारी डिवा.)

सवारी डिवा. निदेशालय (एनेक्सी-1), अनुसंधान, अभिकल्प एवं मानक संगठन, मानक नगर, लखनऊ-226011

9.5.2019
(उत्तम प्रकाश)
उप रेल संरक्षा आयुक्त (यांत्रिक)
का/3

प्राप्त किया

प्रषक

(39)

Annexure-1/Page 1 of 1.
[of CCRS Office's Letter No. Q.12011/09/2018-19-2/P, Dated 07.05.2019]

Conditions to be ensured by the Railway for operation of the 8-car formation MEMU stock having 3-phase IGBT based propulsion system up to maximum speed of 100 kmph

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/MEMU/3-Phase, Dated 11.02.2019 applicable upto the maximum speed of 100 kmph on track maintained to other than C&M I Vol. I Standard, duly taking into account the corrections/additions indicated in the Correction Slip No.149 Dated 08.02.2019 to relevant para of IRPWM, which pertains to revised track maintenance standards for different speed bands and has been issued vide Railway Board's letter No. 2018/CE-II/CS/I Dated 08.02.2019. Remarks of the Railway against each para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976-Rule 4.08 1(a).
3. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
4. Maximum speed of the 8-car formation MEMU shall be restricted as per speeds proposed therein or the maximum permissible speed of the section, whichever is less.
5. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
6. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
7. Railway shall comply all the stipulations mentioned in EIG (Southern Railway & ICF) Sanction no. ET/01/2019-20, Dated 06.04.2019 for 8- Car MEMU. All electrical equipment shall be maintained in good condition and necessary safety precautions shall be taken by Railways.
8. Brakes of the rolling stock shall be in good working order during the operation.
9. RDSO shall issue necessary Amendment to Speed Certificate by mentioning speed in deflated conditions of air spring.
10. Suitable communication between guard and driver shall be provided.

07.05.2019

Statutory inspection of the rolling stock by the CRS Southern Circle was carried out on 08.04.2019 at EMU Car Shed, Avadi, Southern Railway. Para 27 of CRS Inspection Report suggests about few measures for further improvement of the rolling stock in future. These are given below for taking necessary action by the Railway for its implementation:

- i. Pop up type indication on Human Machine Interface (HMI) in case of bogie isolation should be provided.
- ii. In case, more than 50% of the bogies are in isolated condition, necessary changes in the TCMS software regarding non-availability of traction (provision of traction cut-off) shall be provided and implemented.
- iii. Color coding bands as per norms shall be provided on stainless steel pipes.
- iv. Protective guard may be provided for compressor assembly to avoid damage in case of ballast hitting/cattle run over.
- v. All danger boards in passenger areas are only in English. These are only stickers. Tri-lingual Danger boards should be stencilled wherever required in all the passenger areas which is a requirement as per Electricity Act.
- vi. Between two vestibules, gap is seen which is wide enough to trap a human feet. Possibility of closing the gap may be explored. It is suggested that possibility of completely sealed vestibule area, like that of Train-18, may be explored in future designs.
- vii. Possibility to extend the step ladders provided in the coaches to 40 to 50 mm outwards at the same level as side wall may explored so that this much extra feet landing will be available to the passengers.
- viii. Toilets have been provided but the passenger movement into the toilet is constricted due to provision of wash basin. Location of wash basin should be reviewed and placed so that easy movement can be made possible.
- ix. Rain gutters have been provided above the doorways and throughout the length of the coach. But this is being used by the passengers to hang on the doorways during heavy rush. Many accidents have occurred due to this. Feasibility of redesigning of gutter above the door way area to prevent passenger hanging may be explored for future production.
- x. Some more hand holders hanging from roof wall shall be provided at places near toilets etc as some passengers who stand there do not have this provision.
- xi. Lights and Fans of DMC where TCMS computer was off, worked as per command. It was verified physically. But Status did not get updated in HMI. Medha agreed to update the software to reflect the actual status in HMI.
- xii. Provision of Smoke detecting device can be tried inside HT compartment on a trial basis. In case smoke detected, an alarm and lamp display shall appear on the drivers desk for early detection of smoke.
- xiii. If any attempt to open HT compartment without ensuring lowering panto and earthing VCB, provision shall be made for alarm and lamp indication to alert the crew working the MEMU rake. Proper interlock may be developed.
- xiv. Accessing VCB earthing switch is difficult. The manufacturer staff was struggling hard to reach and operate. This aspect may be looked into.
- xv. The EP brake unit provided under frame shall be screen protected. This will protect the unit from hitting by foreign object/material.
- xvi. Proper operation sequence before entering into HT room shall be displayed on the door of the HT compartment.

07.05.2019

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Annexure-2/ Page 2 of 2
[of CCRS Office's Letter No. Q.12011/09/2018-19-7.Rt, Dated (07.05.2019)]

- xvii. LED display board is presently available on the top side of the MEMU rake, just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.
 - xviii. Detailed maintenance manual shall be made available with colour photograph for the purpose of maintenance of the rake.
 - xix. The cable head termination to transformer underneath shall be protected with guard.
 - xx. Working of cameras and its recording shall be checked periodically when the MEMU comes to shed for maintenance.
 - xxi. Possibility needs to be explore for viewing of passenger area using already provided CCTV camera from motorman's desk.
 - xxii. Possibility needs to be explore for Passenger Emergency Communication System for passengers to talk to motorman.
- 27.05.2018



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)



No. 2022/CEDO/SR/09

New Delhi, Dated 01.07.2022

The Director General,
RDSO, Manak Nagar,
Lucknow -226011.

The General Manager,
All Indian Railways

Sub: Introduction of BG 4000 HP, 6 Axle Locomotive fitted with Co-Co Bogies
[Unique Transportation Code:WDG4; Maximum Axle Load 21.0(+2%/-4%)t]
to M/s GM's Drawing No.L020328 up to a maximum speed of 105kmph on
IR B.G. routes, by *Zonal Railways*

Ref : (i) RDSO's letter No. SD.WDG.11, dated 22.12.2020 & 21.02.2022
(ii) RDSO's Final Speed Certificate (FSC) No. SD.WDG4.11, dated
10.02.2022
(iii) CCRS office's letter No. Q.12011/15/2020-21- T.W. dated 16.03.2022

A. With reference to RDSO above applications no. SD.WDG.11, dated 22.12.2020 & 21.02.2022 sent through the chief commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG 4000 HP, 6 Axle Locomotive fitted with Co-Co Bogies [Unique Transportation Code:WDG4; Maximum Axle Load 21.0(+2%/-4%)t] to M/s GM's Drawing No.L020328 up to a maximum speed of 105kmph on IR B.G. routes, by *Zonal Railways* with the following stipulations as under:

- i. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) No. SD.WDG4.11, Dated 10.02.2022 for operation up to a maximum speed of 105kmph, shall be ensured by the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock.
- ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
- iii. Visibility from the locomotive cab shall conform to stipulations mentioned in UIC 651.

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- iv. As per Para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976-Rule 4.08 1(a).
- v. Suitable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.
- vi. Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, Para no. 7.8.9 shall be followed.
- vii. Before initiating the operation, PCEE of the concerned Railway shall certify the track worthiness and ensure safety of the rolling stock. Proper maintenance of the rolling stock shall be ensured.
- viii. Brakes of the rolling stock shall be in good working order during the operation.

B. This superseded Railway Board letter No. 99/CEDO/SR/08, dated 23.06.1999

01.07.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-47598, MTNL No.-011-23047598]

e-mail address : dceg@rb.railnet.gov.in

No. 2022/CEDO/SR/09

New Delhi, Dated 01.07.2022

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/15/2020-21- T.W. dated 16.03.2022
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. PED/EE(RS), Railway Board

01.07.22

(गौरव)

निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

