File No.RDSO-MW0SPD(BVAN)/1/2020-O/o PED/SW/RDSO

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) 2465310

FINAL SPEED CERTIFICATE OF BCNM2 WAGON FOR OPERATION OVER INDIAN RAILWAYS BG ROUTES AND ROUTES OF EASTERN AND WESTERN DEDICATED FREIGHT CORRIDORS OF DFCCIL.

No.	MW/SPD/BG/BCNM2

Date	As signed

(I) महाप्रबंधक (इंजी),

1. मध्य रेलवे, छत्रपति शिवाजी महाराज टर्मिनस, मुम्बई– 400 001.
2. पूर्व रेलवे, फेयरली प्लेस, कोलकाता – 700 001.
3. उत्तर रेलवे, बड़ौदा हाउस, नई दिल्ली – 110 001.
4. दक्षिण रेलवे, पार्क टाउन, चेन्नई – 600 003.
5. दक्षिण मध्य रेलवे, रेल निलायम, सिकन्दराबाद – 500 071.
6. दक्षिण पूर्व रेलवे, गार्डेन रीच, कोलकाता – 700 043.
7. पूर्वोत्तर रेलवे, गोरखपुर – 273 012.
8. पूर्वोत्तर सीमान्त रेलवे, मालीगॉव, गुवाहाटी – 781 011.
9. पश्चिम रेलवे, चर्चगेट, मुम्बई – 400 020.
10. पूर्व मध्य रेलवे, हाजीपुर – 844 101.
11. पूर्व तटीय रेलवे, बीडीए रेंटल कालोनी, रेलवे काम्पलेक्स, चन्द्रशेखरपुरा, भुवनेश्वर,–751 016.
12. उत्तर मध्य रेलवे, सुबेदार गंज, प्रयागराज– 211 001.
13. उत्तर पश्चिम रेलवे, जयपुर – 302 006.
14. दक्षिण पश्चिम रेलवे, हुबली – 580 023.
15. पश्चिम मध्य रेलवे, जबलपुर – 482 001.
16. दक्षिण पूर्व मध्य रेलवे, आर ई आफिस काम्पलेक्स, बिलासपुर – 495 004.

(II) प्रबन्ध निदेशक, डेडीकेटेड फ्रेट कोरीडोर कार्पोरेशन आफ इण्डिया लि0, पॉचवा तल, प्रगति मैदान मैट्रो स्टेशन बिल्डिंग काम्पलेक्स, नई दिल्ली–110 001

Sub :	Final speed certificate of Broad Gauge Bogie covered wagon type **'BCNM2'** having maximum axle load of 22.82t for operation up to maximum speed of 100 kmph in empty and 75 kmph in loaded condition over Indian Railways BG routes **and** up to maximum speed of 100 kmph in both empty and loaded conditions for operation over routes of Eastern and Western Dedicated Freight Corridors of DFCCIL.
Ref:	i. Final Speed Certificate no. MW/SPD/BG/BCNM1/22.82t dated: 05.05.2011 followed by Amendment No.1, MW/SPD/BG dated 13-09-2013. ii. RDSO's oscillation trial report no. RDSO/2022/TG/MT-1855/F, Rev.-0, Amendment – Nil dated 05.05.2022 and its corrigendum note no. RM2/W/47 dated 05.08.2022. iii. DME (Frt.) / Railway Board's letter no. 2010/M(N)/951/23 dated 21.07.2022.

1.0	IMPORTANT PARAMETERS RELATED TO ROLLING STOCK

Type	Final / Provisional / Oscillation Trial / COCR/ Movement	Final	**Validity/ Period or Permanent**	Permanent	**IR/ Sectional/ DFCCIL**	IR , Routes of Eastern and Western DFCCIL	

Stock Name	BCNM2	**Max. Axle Load (Empty)**	6.8 t	**Max. Axle Load (Loaded)**	22.82 t

Transportation Code	BCNM2	**DIAGRAM Drg. No.**	RDSO Drg. No. WD-05084-S-05 Alt.-7 or latest (subject to not 'new' in accordance with conditions of Para 28 of Railways (Opening for Public Carriage of Passengers) Rules)

Commodity	**Coal / Ore / Steel / Bagged / Oil /etc.**	Cement, fertilizer, food grains etc.	**Gauge**	BG	

Type of Bogie	Casnub 22NLB	**Type of Coupler**	AAR type E/F NT-Centre Buffer Coupler	**Wheel Dia. (mm)**	New	Condemning dia
					1000	906

Rake / Train consist for COCR / Oscillation Trial	One Locomotive+ 41 BCNM2 Wagon+ One Brake Van

Max. Permissible Speed For IR	**Empty**	100 kmph	**Loaded**	75 kmph
Max. Permissible Speed For DFCCIL	**Empty**	100 kmph	**Loaded**	100 kmph

2.0	INTRODUCTION

2.1	BCNM2 is modified BCNM1 wagon fitted with modified suspension elements {Springs-14,14,4,4 ((Drg. No. WD-22055-S/1 (Outer), WD-22055-S/2 (Inner), WD-22055-S/3 (Snubber Outer), WD-22055-S/4(Snubber Inner)); friction wedge to Drg. no. WD-22055-S/5 as per spec no. CONTR-02-MISC-2007; Side Bearer- Variant C of Spec.no. WD-62-Misc-2017}. Existing BCNM1 wagons are fitted with suspension springs14,14,4; friction wedge to Drg. no. SK-77579 & PU side bearer.
2.2	Broad Gauge Bogie covered wagon type BCNM2 having maximum axle load of 22.82t (CC+8t+2t) are useful for transportation of foodgrain, fertilizer and cements etc. BCNM2 wagons are fitted with Casnub 22NLB Bogies, high tensile Centre Buffer Coupler with high capacity draft gear and twin pipe graduated release air brake system. The leading particulars of BCNM2 wagon are indicated in RDSO Drg. no. WD-05084-S-05, Alt.-7 or latest & in Annexure-I.
2.3	On the basis of oscillation trial report no. MT-753/F & MT-987/F, BCNM1 wagon with maximum axle load of 22.82t (CC+8t+2t) has been permitted to run upto maximum permissible speed of 80 kmph in empty and 60 kmph in loaded condition vide RDSO's final speed certificate and its amendment, referred at (i) above.
2.4	To enhance the speed of existing BCNM1 wagon with maximum axle load of 22.82t to RDSO Drg. no. WD-05084-S-05, Alt 7 or latest in empty and loaded conditions, detailed re-oscillation trials have been conducted with modified suspension elements (Springs-14,14,4,4 (Drg. No. WD-22055-S/1 (Outer), WD-22055-S/2 (Inner), WD-22055-S/3 (Snubber Outer), WD-22055-S/4 (Snubber Inner) ; non metallic friction wedge to Drg. no. WD-22055-S/5 as per spec. no CONTR-02-MISC-2007, Side Bearer- Variant "C" of Spec.no. WD-62-Misc-2017) over Mahoba- Khajuraho (MBA-KURJ) section of North

	Central Railway. The results of the trial are mentioned in RDSO's report no. RDSO/2022/TG/MT-1855/F, Rev.-0, Amendment - Nil dated 05.05.2022 followed by corrigendum dated 05.08.2022, referred at (ii) above. Oscillation trial results indicate that 'BCNM1' wagon fitted with modified suspension elements has exhibited satisfactory riding and stability behaviour up to a test speed of 110 kmph in both empty and loaded conditions on location/stretches as per current revision of "Third Report of Standing Criteria Committee" on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020 containing Track Geometry Standards under Para 522.
2.5	To differentiate between existing BCNM1 wagon and modified BCNM1 wagon (fitted with modified suspension elements), Railway Board has allotted new Mech./Transportation code as BCNM2 for modified BCNM1 wagon fitted with modified suspension elements vide reference (iii) above.
2.6	Operation of CC+8+2t/22.9t would be on identified routes. Further, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/(CC+6+2)t axle load wagon at 75 kmph in terms of Railway Board letter no. 2020/CE-II/TS/22.9 dated 20.08.2020.

3.0	In view of above, based on the design features & satisfactory test results of oscillation trial as contained in RDSO's oscillation trial report no. MT-1855/F, Rev.-0, Amendment-Nil, dated 05.05.2022 followed by corrigendum dated 05.08.2022, it is certified that BCNM2 wagon to RDSO Drg. no. WD-05084-S-05 Alt.-7 or latest, may be permitted to run up to maximum speed of 100 kmph in empty and 75 kmph in loaded condition for operation over Indian Railways BG routes **and** up to maximum speed of 100 kmph in both empty and loaded conditions for operation over routes of Eastern and Western Dedicated Freight Corridors of DFCCIL subject to the following conditions:

3.1	**TRACK STRUCTURE DETAILS AND SPEED:**			
3.1.1	**For Indian Railway BG Routes:**			
3.1.1.1	The Track structure shall be minimum standard of:			
3.1.1.1.1	**(a) Speed in Empty condition:**			
	Track structure	**Sleeper Density**	**Ballast Cushion**	**Max. Speed in Empty Condition**
	52 Kg (72 UTS) rail	1540 Nos./Km PSC sleeper	250 mm (100 mm clean & rest in caked up condition on compacted and stable formation)	Speed upto 60 Kmph
	52 Kg (90 UTS) rail	1540 Nos./Km PSC sleeper	250 mm (100 mm clean & rest in caked up condition on compacted and stable formation)	Speed upto 100 kmph
3.1.1.1.2	**(b) Speed in Loaded condition:**			
3.1.1.1.2.1	**Speed upto 60 kmph**			
	Track structure	**Sleeper Density**	**Ballast Cushion**	**Max. Speed in Empty Condition**
	52 Kg (90 UTS) rail	1540 Nos./Km PSC sleeper	300 mm (150 mm clean & rest in caked up condition on compacted and stable formation)	Speed Upto 60 Kmph
	Operation of CC+8+2t on routes falling in Temperature zone IV and Zone III as per IRPWM June-2020 would be as per Railway Board letter no. 2019/CE-II/TSC/88/Puri dated 28.08.2020 with the following conditions for 52 kg (90 UTS) rail track: (i) Distressing temperature for LWR in Temperature zone IV would be reduced by 5°C (Tm to Tm+5).			

<table>
<tr><td></td><td colspan="4">(ii) USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic (present situation corresponds to 8 GMT).</td></tr>
<tr><td>3.1.1.1.2.2</td><td colspan="4">Speed above 60 kmph and upto 75 kmph</td></tr>
<tr><td></td><td>Track structure</td><td>Sleeper Density</td><td>Ballast Cushion</td><td>Max. Speed in Loaded Condition</td></tr>
<tr><td></td><td>60Kg (90UTS) rail</td><td>1540 Nos./Km PSC sleeper</td><td>300 mm (150mm clean & rest in caked up condition on compacted and stable formation)</td><td>Speed upto 75 kmph</td></tr>
<tr><td></td><td colspan="4">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.</td></tr>
<tr><td>3.1.1.2</td><td colspan="4">Track geometry standards shall be maintained to as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522.</td></tr>
<tr><td>3.1.1.3</td><td colspan="4">For track maintained to lower standard than that mentioned above, the Chief Engineer shall decide the lower maximum permissible speed on the basis of maintenance condition. In this connection, instructions issued by Railway Board, vide letter no. 65/WDO/SR/26 dated 19/20.10.1966 may be seen. When the Chief Engineer considers that the road bed is not compacted or there is improper drainage, he may suitably restrict the maximum permissible speed depending upon the local conditions.</td></tr>
<tr><td>3.1.1.4</td><td colspan="4">The maximum permissible speed on curves shall be decided on the basis of the existing provisions of the Indian Railways Permanent Way Manual, June- 2020. Maximum cant deficiency permitted would be 75 mm.</td></tr>
<tr><td>3.1.1.5</td><td colspan="4">The welds shall be protected by joggled fish plates as per provisions of USFD Manual and Indian Railways Permanent Way Manual June-2020 and other policy instructions of Railway Board. The maintenance of rails and rail joints shall be ensured as per provision of Indian Railways Permanent Way Manual, June- 2020. In addition, wherever condition warrants on account of corrosion on rail / weld collar, wear on rail, cupping of welds etc., necessary precautions shall be taken for fish plating / joggled fish plating.</td></tr>
<tr><td>3.1.1.6</td><td colspan="4">Zonal Railways shall ensure further detailed examination of track as deemed fit based on age cum condition basis, overdue renewal and condition of formation etc. as per provisions of Indian Railways Permanent Way Manual, June-2020 regarding permanent way renewals and may suitably restrict maximum speed of operation based on such examination.</td></tr>
<tr><td>3.1.2</td><td colspan="4">For DFCCIL Routes:</td></tr>
<tr><td>3.1.2.1</td><td colspan="4">Member Engineering Railway Board vide DO letter no. 2011/CEII/TS/DFC dated 15.10.2018 has authorized MD/DFCCIL to permit the running of 25t freight trains at 100kmph or at any other speed considered appropriate by him. MD/DFCCIL vide letter no. HQ/Mech/2018/Axle load Wagon dated 13.08.2019 stated that the operational speed of 25t axle load is permitted at 100kmph on 60kg (90 UTS rail) as already intimated vide letter no. CO/Mech2018/25t wagon/201800591 dated 17.07.2019. In view of this, the minimum track structure shall be:</td></tr>
<tr><td></td><td>Track structure</td><td>Sleeper Density</td><td>Ballast Cushion</td><td>Max. Speed in Empty Condition</td><td>Max. Speed in Loaded condition</td></tr>
<tr><td></td><td>60kg (90 UTS) rail</td><td>1660 Nos./Km PSC sleeper</td><td>300 mm (200 mm clean & rest in caked up condition on compacted and stable formation)</td><td>100 Kmph</td><td>100 Kmph</td></tr>
<tr><td>3.1.2.2</td><td colspan="4">The minimum standard of track geometry maintenance shall be as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry</td></tr>
</table>

	standards under Para 522.
3.1.2.3	For track maintained to lower standard than that mentioned above, the Chief Engineer/GGM (Civil) shall decide the lower maximum permissible speed on the basis of maintenance condition. In this connection, instructions issued by Railway Board, vide letter no. 65/WDO/SR/26 dated 19/20.10.1966 may be seen. When the Chief Engineer/GGM (Civil) considers that the road bed is not compacted or there is improper drainage, he may suitably restrict the maximum permissible speed depending upon the local conditions.
3.1.2.4	The maximum permissible speed on curves shall be decided on the basis of the existing provisions of the Indian Railways Permanent Way Manual, June-2020. Maximum Cant deficiency permitted would be 75 mm.
3.1.2.5	The welds shall be protected by joggled fish plates as per provisions of USFD Manual and Indian Railways Permanent Way Manual June-2020 and other policy instructions of Railway Board. The maintenance of rails and rail joints shall be ensured as per provision of Indian Railways Permanent Way Manual, June-2020. In addition, wherever condition warrants on account of corrosion on rail / weld collar, wear on rail, cupping of welds etc., necessary precautions shall be taken for fish plating / joggled fish plating.
3.1.2.6	DFCCIL shall ensure further detailed examination of track as deemed fit based on age cum condition basis, overdue renewal and condition of formation etc. as per provisions of Indian Railways Permanent Way Manual, June-2020 regarding permanent way renewals and may suitably restrict maximum speed of operation based on such examination.

3.2	**BRIDGE STIPULATIONS:**
3.2.1	**For Indian Railway BG Routes:**
3.2.1.1	This clearance is subject to the following parameters of 'BCNM2' wagon:

S.No.	Description	Designed	Operational
(i)	Maximum axle load (Empty)	6.8 t	6.8 t
(ii)	Maximum axle load (Loaded)	22.82 t	22.82 t
(iii)	Maximum braking force	10% of axle load	
(iv)	Max. C.G. height from rail level in empty condition	1191 mm	
(v)	Max. C.G. height from rail level in loaded condition	1809 mm	

3.2.1.2	The clearance refers to "Standard RDSO Spans" bridges with standard design of girders, slabs, pipe culverts, piers and abutments etc. issued by RDSO for BGML, RBG, MBG and 25t-2008 standard loadings.
3.2.1.3	For regular operation of BCNM2 Wagon over Indian Railway B.G route, the following restrictions are applicable:- (a) In Empty condition, all Standard RDSO spans of BGML, RBG, MBG and 25T:2008 loading standard are fit for proposed speed of 100 kmph. (b) In Loaded condition, all Standard RDSO spans upto 47.25m (all effective) of BGML, RBG, and MBG are fit for proposed speed of 75 kmph. (c) In Loaded condition, Standard RDSO spans of 63.0m & 78.8m (all effective) of BGML, RBG and MBG loading standard shall be restricted for speed of 60 kmph. (d) In Loaded condition, all Standard RDSO spans of 25t-2008 loading standard are fit for proposed speed of 75 kmph.
3.2.1.3.1	Track on bridges and approaches of BGML spans 47.25m, 63.0m & 78.8m (all effective) shall be strengthened or modified in such a way so as to allow for dispersion of longitudinal force as per clause 2.8.3.2 of IRS Bridge Rules. In cases where dispersion cannot be allowed as per clause 2.8.3.2 such as due to

	provision of SEJ in bridges etc., the bridge superstructure including bearings and sub-structure shall be checked for longitudinal force without dispersion and certified safe by the Chief Bridge Engineer concerned.
3.2.1.4	Superstructures & bearings of "Special Spans" (designed and constructed by Zonal Railways based on site requirements), Arches and sub-structures (including foundation) of all bridges (Standard RDSO spans and Special Spans) are to be got examined by the Chief Bridge Engineer and certified safe with respect to current Indian Railway standard codes with up to-date correction slips.
3.2.1.5	During operation of BCNM2 wagons with single/multiple locomotives and other rolling stocks the speed certificate issued by RDSO of the single/multiple locomotives/rolling stocks in empty/loaded condition shall be strictly complied with. Therefore, speed certificate of each single/multiple locomotive and rolling stocks in train formation should be examined carefully & speed restriction/ strengthening/prohibition/any other restriction should be imposed according to most restrictive rolling stock/locomotive/multiple locomotives in train formation.
3.2.1.6	Location of bridges on which speed restrictions are imposed should be notified by the Railways and incorporated in the working timetable.
3.2.1.7	The above clauses have been arrived at considering bridges are in physically sound condition. In case the bridges are not in satisfactory physical condition, necessary speed restriction to be imposed by Chief Bridge Engineer of Zonal Railway on condition basis.
3.2.1.8	The directives of RDSO for operation of CC+8+2t & CC+6+2t axle load 22.82t & 22.32t communicated vide RDSO letter no. CBS/Golden /Q/ Strength dated 21/27-07-2009 & 25-09-2009 shall also be followed.
3.2.2	**For DFCCIL Routes:**
3.2.2.1	The clearance refers to "Standard RDSO Spans" bridges with standard design of girders, slabs, pipe culverts, piers and abutments etc. issued by RDSO for "DFC loading (32.5t axle load)".
3.2.2.2	(a) In Empty condition, all Standard RDSO spans of DFC loading are fit for proposed speed of 100 kmph. (b) In loaded condition, all Standard RDSO spans of DFC loading are fit for proposed speed of 100 kmph.
3.2.2.3	Superstructures & bearings of "Special Spans" (designed and constructed by DFCCIL based on site requirements), Arches and sub-structures (including foundation) of all bridges (Standard RDSO spans and Special Spans) are to be got examined by the DFCCIL and certified safe with respect to current Indian Railway standard codes with up to-date correction slips.
3.2.2.4	During operation of BCNM2 wagons with single/multiple locomotives and other Rolling stocks the speed certificate issued by RDSO of the single/multiple locomotives/Rolling stocks in empty/loaded condition shall be strictly complied with. Therefore, speed certificate of each single/multiple locomotive and Rolling stocks in train formation should be examined carefully & speed restriction/ strengthening/prohibition/any other restriction should be imposed according to most restrictive Rolling stock/locomotive/multiple locomotives in train formation.
3.2.2.5	Location of bridges on which speed restrictions are imposed should be notified by the DFCCIL and incorporated in the working timetable.
3.2.2.6	The above clauses have been arrived at considering bridges are in physically sound condition. In case the bridges are not in satisfactory physical condition, necessary speed restriction to be imposed by DFCCIL on condition basis.

3.3	**SIGNALLING STIPULATIONS:**
3.3.1	Provisions of GR, SR, IRSOD, SSOD of DFCCIL, SEM & all extant instructions issued from time to time as applicable shall be complied with.
3.3.2	In case of Rolling stocks/Train (having this wagon in its composition) having EBD of more than 1 km and non-provision of second distant signal/ 4 Aspect Automatic

	signalling in the section, action as per Para 7.8.9 of IRSEM (issue July 2021) shall be taken.
3.3.3	While running through a station yard, speed of the Rolling stock shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station or any other speed restriction whichever is severe.

3.4	**TRACTION STIPULATIONS:**
3.4.1	**For Indian Railway BG Routes:**
3.4.1.1	In 25kV AC traction area, Principal Chief Electrical Engineer of the concerned Railway shall have to ensure that the minimum height of contact wire and electrical clearances as stipulated in provisions of Chapter-V and V-A, Electric Traction "Schedule of Dimensions of 1676mm Gauge (BG) Revised 2004" with latest Addendum & Corrigendum Slips is not violated and strictly followed to ensure its safe running.
3.4.1.2	In addition to above, the Principal Chief Electrical Engineer of the concerned Railway may impose any temporary speed restriction on the basis of personal knowledge, experience of the sectional OHE and field conditions prevailing on the particular section.
3.4.2	**For DFCCIL Routes:**
3.4.2.1	In 25kV AC traction area, GGM (Electrical) of the concerned DFCCIL shall have to ensure that the minimum height of contact wire and electrical clearances as stipulated in provisions of Chapter-VII of Eastern Corridor and Chapter XIV of Western Corridor, Electric Traction 'Standard Schedule of Dimensions for Dedicated Freight Corridors' with latest Addendum & Corrigendum slips is not violated and strictly followed to ensure its safe running.
3.4.2.2	In addition to above, GGM (Electrical) of the concerned DFCCIL may impose any temporary speed restriction on the basis of personal knowledge, experience of the sectional OHE and field conditions prevailing on the particular section.

3.5	**ROLLING STOCK STIPULATIONS:**
3.5.1	Before initiating the operation over Indian Railways/DFCCIL, Principal Chief Mechanical Engineer of concerned/adjoining Zonal Railways shall arrange to certify the service worthiness (track worthiness) and safety of the Rolling stocks. He shall also ensure the proper maintenance of the Rolling stocks. In terms of EDME/Frt./Railway Board's letter no. 2017/M(N)/951/10 dated 21.06.2017, no maintenance of rolling stock is envisaged on DFCCIL. GGM/Mechanical will get the service worthiness (track worthiness) certified from the adjoining /concerned Zonal Railways.
3.5.2	Brakes of the rake of the wagons shall be in good working order during the operation.

3.6	**GENERAL STIPULATIONS:**
3.6.1	All the permanent and temporary speed restrictions enforced and those that may be imposed from time to time due to track, bridges, curves, signalling and interlocking etc. shall be observed. In this connection, the speed on curves shall be in accordance with Para 3.1.1.4 for Indian Railways track and Para 3.1.2.4 for DFCCIL track of this speed certificate.
3.6.2	For placement/movement of wagon on any private or assisted siding for loading or unloading the consignments and for the maximum permissible speed of empty and loaded wagon in the siding at the originating point and destination, Chief Engineer of concerned Zonal Railway in case of Indian Railways and GGM (Civil) in case of DFCCIL shall be referred to.
3.6.3	DFCCIL would ensure the mitigating measures as included in Member Engineering Railway Board DO letter no. 2011/CE-II/TS/DFC dated 15.10.2018.
3.6.4	The design of 'BCNM2' wagon does not infringe to clauses of Chapter IV (A) of Indian Railway Schedule of Dimensions BG Revised, 2004.
3.6.5	The design of 'BCNM2' wagon does not infringe to any clause of Chapter IV for Eastern

	Dedicated Freight Corridor and Chapter XI for Western Dedicated Freight Corridor of 'Standard Schedule of Dimensions of January 2013'.
3.6.6	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.

ENCLOSURES: / संलग्नक:

i)	RDSO Drg. No. WD-05084-S-05 Alt.-7 or latest
ii)	Annexure-I (Salient features of 'BCNM2' wagon)

Digitally Signed by Nitin Mehrotra
Date: 18-08-2022 17:16:21
Reason: Approved
(नितिन मेहरोत्रा)
कार्यकारी निदेशक मानक/चालन शक्ति

प्रतिलिपि: सूचनार्थ (copy for information)

(1) सचिव (यांत्रिक/इंजी), रेलवे बोर्ड, रेल भवन, नई दिल्ली – 110001
(2) मुख्य रेल संरक्षा आयुक्त, अशोक मार्ग, लखनऊ–226001
(3) महाप्रबंधक (मैकेनिकल/यातायात/संकेत एवं दूरसंचार),
(i) मध्य रेलवे, छत्रपति शिवाजी महाराज टर्मिनस, मुम्बई– 400 001.
(ii) पूर्व रेलवे, फेयरली प्लेस, कोलकाता – 700 001.
(iii) उत्तर रेलवे, बड़ौदा हाउस, नई दिल्ली – 110 001.
(iv) दक्षिण रेलवे, पार्क टाउन, चेन्नई – 600 003.
(v) दक्षिण मध्य रेलवे, रेल निलायम, सिकन्दराबाद – 500 071.
(vi) दक्षिण पूर्व रेलवे, गार्डेन रीच, कोलकाता – 700 043.
(vii) पूर्वोत्तर रेलवे, गोरखपुर – 273 012.
(viii) पूर्वोत्तर सीमान्त रेलवे, मालीगॉव, गुवाहाटी – 781 011.
(ix) पश्चिम रेलवे, चर्चगेट, मुम्बई – 400 020.
(x) पूर्व मध्य रेलवे, हाजीपुर – 844 101.
(xi) पूर्व तटीय रेलवे, बीडीए रेंटल कालोनी, रेलवे काम्पलेक्स, चन्द्रशेखरपुरा, भुवनेश्वर,–751 016.
(xii) उत्तर मध्य रेलवे, प्रयागराज – 211 011.
(xiii) उत्तर पश्चिम रेलवे, जयपुर – 302 006.
(xiv) दक्षिण पश्चिम रेलवे, हुबली – 580 023.
(xv) पश्चिम मध्य रेलवे, जबलपुर – 482 001.
(xvi) दक्षिण पूर्व मध्य रेलवे, आर ई आफिस काम्पलेक्स, बिलासपुर – 495 004.
(4) जी. जी.एम. (मैकेनिकल /इंजी/यातायात/संकेत एवं दूरसंचार)डेडीकेटेड फ्रेट कोरीडोर कार्पोरेशन आफ इण्डिया लि0. नई दिल्ली–110 001
(5) अध्यक्ष एवं प्रबंध निदेशक, कोंकण रेलवे कार्पोरेशन लिमिटेड, पोस्ट बाक्स नं0 9, बेलापुर भवन, सेक्टर –11, सीबीडी बेलापुर,नवी मुम्बई – 400614

ENCLOSURES: / संलग्नक:

i)	RDSO Drg. No. WD-05084-S-05 Alt.-7 or latest
ii)	Annexure-I (Salient features of 'BCNM2' wagon)

-signed-
(नितिन मेहरोत्रा)
कार्यकारी निदेशक मानक / चालन शक्ति

Annexure-I

Salient features of BCNM2

S.No	Description	Details
01	Principle dimension of Rolling Stock	(Diagram no. WD-05084-S-05 Alt.-7 or latest) a. Length over Couplers/Buffers= 15429 mm b. Bogie centre distance = 10000 mm c. Wheel Base = 2000 mm d. Axle load (loaded) = 22.82 t e. Axle load (Empty) = 6.8t
02	Details of Bogie and wheel	a. Casnub 22NLB b. (i) wheel diameter (new) 1000 mm. (ii) wheel diameter (condem.) 906 mm.
03	Details of Brake system	Twin Pipe Graduated Release Air Brake System
04	Brake Percentage	(Drawing no. WD-84014-S-11) a. Brake Percentage(loaded) =36.86 % b. Brake Percentage (Empty) =69.48 %
05	Details of Coupler and buffer	a. AAR type E/F NT-Coupler b. High Capacity Draft gears
06	Periodic maintenance schedules and standards (safety limits) to be followed in respect of safety items.	Standards of Bogie Maintenance shall be as per G-95
07	Instructions regarding operation of rolling stock in case of failure of any of the safety items.	a. For wheel & axle ref. para 2.8 of chapter-2 of IRCA Part-III edition-1973 b. Air Brake Maintenance Manual no. G-97. c. Coupler Maintenance Manual no. G-80 & G-76
08	Carrying capacity	64.08 T