

**GUARD**

**FILE**

**2021 Pt.II**



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

No. 2021/CEDO/SR/23

New Delhi, Dated 15.09.2021

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

**Sub:** Operation of Broad Gauge Bogie Container Flat wagon type 'BLCS (A-car & B ear)' having Maximum Axle Load: 25t to RDSO's Drawing no. WD-15011-S-02 Alt.3 (For A-car) and WD-15011-S-02 Alt-4 (for B-Car) at maximum speed up to 100 kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for an Interim period of two years

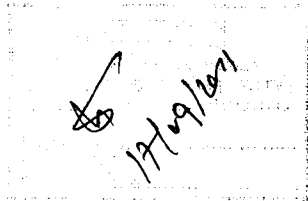
Ref: (i) RDSO's Interim Speed Certificate (ISC) no. MW/CONTR/BLCS25-S, Dated 06.05.2020  
(ii) RDSO's letter no. MW/CONTR/BLCS25-S, Dated 11.05.2020  
(iii) CCRS office letter संख्या- Q.12011/02/2020-21-त.वि, Dated 03.9.021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of Broad Gauge Bogie Container Flat wagon type 'BLCS (A-car & B ear)' having Maximum Axle Load: 25t to RDSO's Drawing no. WD-15011-S-02 Alt.3 (For A-car) and WD-15011-S-02 Alt-4 (for B-Car) at maximum speed up to 100 kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for an interim period of two years, has observed certain issues mentioned in his covering letter and stipulations in Annexure.

RDSO is requested to examine the issues involved and submit para-wise comments for both i.e. covering letter and Annexure at the earliest.

DA: as above.

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kumar ple  
16/09/2021



Prem Sagar  
15/09/21  
(प्रेम सागर गुप्ता)

कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड  
[Rly No. 030-44803, MTNL No.-011-23383379]  
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No. 2021/CEDO/SR/23

New Delhi, Dated 14.09.2021

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow



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

संख्या—Q.12011/02/2020—21—त.वि

दिनांक—03.09.2021

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

[ध्यानार्थ:EDCE(G)]

विषय: Operation of Broad Gauge Bogie Container Flat wagon type 'BLCS (A-Car & B-Car)' having Maximum Axle Load: 25t to RDSO's Drawing no. WD-15011-S-02 Alt.3 (For A-car) and WD-15011-S-02 Alt-4 (for B-Car) at maximum speed up to 100 kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for an Interim period of two years

- संदर्भ: (i) DG/RDSO's letter No. MW/CONTR./BLC25-S, Dated 13.05.2020  
(ii) RDSO's Interim Speed Certificate (ISC) No. MW/CONTR/BLC25-S, Dated 06.05.2020  
(iii) This office's letter no. Q.12011/04/2019-20-TW (Part-II), Dated 27.05.2020  
(iv) RDSO's letters no. MW/CONTR/BLC25-S Dated 05.01.2021 and 01.02.2021  
(v) This office's letter no. Q.12011/04/2019-20-TW (Part-II), Dated 04.06.2021  
(vi) RDSO's letter no. MW/CONTR/BLC25-S Dated 10.08.2021  
(vii) Railway Board sanction letters no. 2021/CEDO/SR/08(BLCS-S/S) & 2021/CEDO/SR/09(BLCS-D/S) Dated 03.03.2021  
(viii) Railway Board's letter no. 2018/CE-II/TS/25T dt. 14.03.2018  
(ix) Railway Board's letter no 2005/M(N)/951/13 dt. 07/10.04.2006 & 17/18.10.2007

Vide reference (i) & (ii), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock at "Maximum speed up to 100 kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for an interim period of two years"

Vide reference (iii), RDSO was asked to furnish certain clarifications on the subject case. RDSO vide letters under reference (iv) submitted clarifications. Further clarifications were sought vide reference (v), for which RDSO submitted its reply vide reference (vi).

Clarifications submitted by RDSO have been examined and it is noted that some of the issues raised by this office have either not been replied or replied unsatisfactorily. The issues which have not been addressed/answered satisfactorily are mentioned below:

1. **Laying down of validity of BPC for CC and Premium Rake:**

The validity of BPC of CC/Premium rakes for IR has been laid down by Railway Board vide reference (ix). However, RDSO in its reply sent vide reference (vi) has mentioned that the validity of BPC of Premium and CC rakes consisting of BLCS wagons will be 'as for other similar rakes' without referring the matter to Railway Board.

2. **Revision of Speed Certificate to include track structure for 25t Axle Load operation at 100kmph:**

Railway Board vide reference (viii) states that 60ka/110UTS rail is required for 25t Axle Load

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3/9/2021

operation at 100 kmph whereas, RDSO in its reply has stated that 60kg/90UTS rail is required for such operations and the same is mentioned in Para 3.1.1 of Interim Speed Certificate under ref(ii) **However, WDFC has 60 Kg/110 UTS rail, which conforms to track structure laid down by Board vide reference (viii). So, operation of 25t axle load at 100 Kmph over WDFC is agreed to.**

**3. EBD and Coupler Forces Trial:**

RDSO was advised to conduct Coupler Force and EBD Trials of the proposed rolling stock which is a mandatory requirement as per Appendix-2 of Policy Circular-6. However, RDSO has neither conducted these trials nor submitted a timeline for doing the same.

Furthermore, Railway Board vide letter under reference (vii), has accorded sanction for operation of BLCS wagon up to provisional maximum speed of 65 kmph in Empty and Loaded condition with 22.32t axle load in double stack condition over selected IR routes whereas, the instant case is for its operation at 25t axle load up to speed of 100 kmph in Empty and Loaded condition over WDFC routes. It is therefore, not understood, how the interoperability of the rolling stock shall be maintained between IR & WDFC routes

As the case has already been delayed by RDSO by not furnishing the satisfactory replies to issues raised by this office vide letter under reference (v), Commission feels that referring the case back to RDSO may not result in any new input regarding the issues raised and will only cause further delay in introduction of subject rolling stock over DFC routes.

In view of the above, case is being forwarded to Railway Board for necessary action, with recommendation to operate Broad Gauge Bogie Container Flat wagon type 'BLCS (A- Car & B-Car)' having Maximum Axle Load: 25t to RDSO's drawing no. WD-15011-S-02 Alt.3 (For A-car) and WD-15011-S-02 Alt-4 (for B-Car) at **"Maximum speed up to 100 [ONE HUNDRED] kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for an interim period of two years."**

This is subject to stipulations mentioned in Annexure.

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

*Ansiddiqui*  
3/9/2021  
(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

[of CCRS Office's Letter No. Q 12011/12/2020-21 (1R), Dated 03.09.2021 regarding BLCS (A-Car & B-Car)]

**Conditions to be ensured by the Railway for operation of Broad Gauge Bogie Container Flat wagon type 'BLCS (A- Car & B-Car)' having Maximum Axle Load: 25t to RDSO's Drawing no. WD-15011-S-02 Alt.3 (For A-car) and WD-15011-S-02 Alt-4 (for B-Car) at maximum speed up to 100 kmph for wagon without any container, wagon with empty and loaded containers in single and double stack conditions over routes of Western Dedicated Freight Corridor of DFCCIL for a period of two years**

- i. Oscillation trials to be conducted over run down DFC track with worn wheel outline & instrumented measuring wheel within a period of two years from Board's sanction of subject rolling stock.
- ii. Coupler Forces and EBD trials to be done as mandated under Para 2 & 3 of Annexure - 2 of Policy Circular-6 dt. 31.10.2018 and their report submitted to Commission. In the interim period RDSO to furnish EBD calculations for 75 & 100 Kmph for full rake
- iii. Railway Board may define/lay down necessary guidelines regarding the following:
  - a. Validity of BPC of Premium, CC & other types of rakes comprising of BLCS wagon
  - b. Track structure for 25t axle load at 100 Kmph for DFC track
  - c. Interoperability of the stock between IR & DFC routes.
- iv. In view of the deviations observed in RDSO's Speed Certificates regarding condemning limit and maximum wheel flat size of BOXNS & BLCS wagon for operation over IR and DFC routes, Board may lay down **condemning limit** and **maximum wheel flat size** for operation of 25t axle load wagons for IR & DFC routes to avoid interoperability issues.
- v. Observance of all conditions laid down in RDSO's Interim Speed Certificate No MW/CONTR/BLC25-S dt. 06.05.2020. *Remarks* of the DFCCIL against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
- vi. 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.
- 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. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working Time Table so that all operating staff is aware of the instructions.
- x. 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.
- xi. In case of train (with 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 A&C no.9 of SEM Pt-1 shall be taken.
- xii. No overdue in track/rolling stock maintenance shall be permitted.
- xiii. Separate maintenance regime to be legislated for higher axle load route.
- xiv. Detailed guidelines for operations of higher axle load train shall be issued covering all issues related to Track, Bridges, Signal, OHE, Rolling Stock & Operating System etc.
- xv. Right powering of loaded trains running with 25t axle loaded wagons shall be ensured.

Anshul Singh  
3/9/2021

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[of CCRS Office's Letter No. Q 12011/02/2020-21-11, Dated 03.09.2021 regarding BLCS (A-Car & B-Car)]

- xvi. Lateral and Vertical accelerations at the maximum sanctioned speed in Loaded condition in first and last wagon shall be measured & recorded by the DFCCIL for a period of at least one week duration and submit the report to the Commission for the proposed wagon within 15 days of running of wagon.
- xvii. Precautions as mentioned in Para 3.6.6 of Interim Speed Certificate dt. 06.05.2020 to be taken in case of abnormal wind condition.
- xviii. Rolling stock should not be mixed up with other stock having less axle load or speed potential.
- xix. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.
- xx. Only wagons with twin-pipe brake system shall be permitted to run beyond 75 kmph. Air brake system of wagons with twin-pipe shall be in working order for operation beyond 75 kmph.
- xxi. Before initiating the operation, GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.
- xxii. 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.
- xxiii. List of identified feeder routes of DFC fit for 25t axle load operations (if any) may be furnished to this office before commercial operation of this wagon.
- xxiv. Infield instrumentation of rails to be done to determine actual in-service rail stresses under various limiting conditions.
- xxv. Installation of measuring wheel on the rolling stock to capture real time rail-wheel forces by running it periodically for working out critical forces and planning maintenance intervention, if required, to be done.

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3/9/2021