



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



(E-File No. 3386079)

No. 2022/M(C)/137/2

New Delhi, Date: 03.02.2023

Director General
RDSO/Lucknow

Sub: Specifications for three phase propulsion equipment and control system for Freight EMU Trains.

Ref: i. Railway Board letter no. 2021/M (PU)/1/31 dated 20.02.2022 and 29.07.2022.

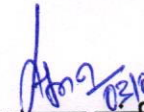
ii. ICF letter no. MD/D/Train-Set/RB contract/186G dated 22.10.2022 and 12.01.2023.

Vide letter under reference ii above RDSO has been requested to issue specification for three phase propulsion equipment and control system for Freight EMU.

ICF has requested RDSO to review/amend related technical requirements in the relevant clauses of RDSO specification no. RDSO/PE/SPEC/EMU/0196-2019 (Rev.0) for procurement of propulsion system for Freight EMU.

In this regard it is advised to issue revised specification or issue necessary addendum/corrigendum to the RDSO specification no. RDSO/PE/SPEC/EMU/0196-2019 (Rev.0) for three phase propulsion equipment and control system for Freight EMU rakes.

The matter may please be treated as **most urgent**.


(सुमन कुमार तांती)
निदेशक / यांत्रिक इंजी. को.
रेलवे बोर्ड

C/- GM/ICF - for kind information and necessary action please.

-PED/PS&EMU and ED/Carriage/RDSO - for kind information and necessary action please.

सवारी डिब्बा कारखाना
INTEGRAL COACH FACTORY
CHENNAI 600 038



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No.: MD/D/Train Set/RB contract/186G

Office of the CDE/Elec.
Dt. 22.10.2022

Principal Executive Director / PS & EMU
RDSO, Manak Nagar,
Lucknow - 226 011

(Kind attn. Shri Gaurav Mathur, ED/PS & EMU/RDSO)

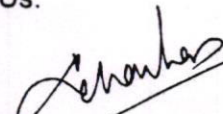
Sub: Review of RDSO specification No. RDSO/PE/SPEC/EMU/0196-2019
(Rev.0) for use in Freight EMU purpose.

As per RB directive, ICF is planning to manufacture 15 rakes of Freight EMU on VB platform during 2023-2024. As such, there is no separate RDSO governing specification for propulsion system for Freight EMU is available. It is planned to procure propulsion equipment as per RDSO spec.No. RDSO/PE/SPEC/EMU/0196-2019 (Rev.0) for Freight EMU application, for which the following technical requirements in the relevant clauses of RDSO specification for Train set needs review/amendment.

SN	Clause No.	Requirement																					
1	2.1	ICF layout drawings referred in this clause for Train Set application needs to be replaced with layouts issued exclusively for Freight EMU purpose, which is appended below. <table><tr><th>SN</th><th>Type of coach</th><th>ICF layout no.</th></tr><tr><td>1</td><td>DTC: Driving Trailer Coach</td><td>TS/F/DTC-9-0-001 alt-a</td></tr><tr><td>2</td><td>DTC2: Driving Trailer Coach</td><td>TS/F/DTC2-9-0-001</td></tr><tr><td>3</td><td>MC: Motor Coach</td><td>TS/F/MC-9-0-001 alt-a</td></tr><tr><td>4</td><td>MC2: Motor Coach</td><td>TS/F/MC2-9-0-001 alt-a</td></tr><tr><td>5</td><td>TC: Trailer Coach</td><td>TS/F/TC-9-0-001 alt-a</td></tr><tr><td>6</td><td>NDTC: Non-Driving Trailer Coach</td><td>TS/F/NDTC/EC-9-0-001 alt-a</td></tr></table> <p>The above layouts have already been approved by RB.</p>	SN	Type of coach	ICF layout no.	1	DTC: Driving Trailer Coach	TS/F/DTC-9-0-001 alt-a	2	DTC2: Driving Trailer Coach	TS/F/DTC2-9-0-001	3	MC: Motor Coach	TS/F/MC-9-0-001 alt-a	4	MC2: Motor Coach	TS/F/MC2-9-0-001 alt-a	5	TC: Trailer Coach	TS/F/TC-9-0-001 alt-a	6	NDTC: Non-Driving Trailer Coach	TS/F/NDTC/EC-9-0-001 alt-a
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2	2.2.1	The passenger capacity details furnished in this clause is not relevant for Freight EMU application.																					
3	2.2.2	The weight of the passengers capacity in this clause is not applicable for Freight EMU application.																					
4	3.2.1	It is mentioned that Traction performance can be achieved for maximum gross weight of 550 ton plus weight of items in the scope of this specifications to be supplied by the supplier for 16-Car formation, which needs to be reviewed for Freight EMU application.																					
5	4.1.1(i) & (x)	No PAPIS related item will be provided in Freight EMU. Driver guard communication and Front Destination Board alone will be provided.																					

	(xxix)	No Air-conditioning units will be provided, except for Driver's Cab.
6	4 11 & 4 12	No PAPIS related equipment will be provided in Freight EMU and only Driver Guard communication and Front Destination Board will be provided.
7	4 15	Body side automatic doors suitable for Freight EMU application is being procured by ICF as per ICF spec.No. _____. These doors are manually operated. Hence, door operation need not be linked with TCMS functionality..
8	4 2.28.2	Since no air-conditioning units are provided, except for Driver's Cab area, the redundancy requirement for auxiliary converter defined in this clause needs to be reviewed, keeping operational requirement of RMHU.
9	4 29.2	Explosion proof lithium iron phosphate batteries of adequate capacity shall be provided on each Basic Unit to feed the emergency 110V DC as mentioned in this clause has been amended as "Low maintenance explosion proof batteries of adequate capacity shall be provided on each Basic Unit" in all the Railway Board Train Set tenders. Similar requirement of battery can be adopted for Freight EMU also.
10	4 29.3.1.	The emergency loads mentioned in (i), (iv), (vii)(& (viii) are not applicable for Freight EMU.
11	4 30	All lights required inside the coach are covered in the scope of interior furnishing contractor by ICF. However, all the exterior lights covered in clause no. 4.31, 4.32, 4.33 & 4.34 are only required for Freight EMU.
12	4.39	No air-conditioning units are required for Freight EMU.
13	4 42.13	Installation of harness for 2 prototype rakes covered in this clause can be deleted for Freight EMU purpose.
14	4 43	High reach pantograph may be required to be provided in Freight EMU, which can be used in normal OHE as well as in the High reach OHE.
15	New clause	Signal exchange light is being provided outside of the Driver's Cab in VB Train set rakes, which needs to be included in the RDSO specification.

RDSO is requested to examine the above requirements and issue necessary amendment to RDSO spec.No.RDSO/PE/SPEC/EMU/0196 -2019 (Rev.0), in order to process for procurement of propulsion system for Freight EMUs.


(P.K. CHAUHAN)
Chief Design Engineer/ Elect.

Copy to:

EDME/Coaching/Railway Board, New Delhi: for kind inf.
DEE/G/RB/New Delhi : for kind inf.
PCME PCEE : for kind inf

MALL
CDEE (Chg.)

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मुख्य अभिकल्प इंजीनियर/बिजली

कार्यालय,

सं.No.MD/D/Train Set/RB Contract/186-G

Office of the CDE/Elec.
दिनांक/Date:12/01/2023.

PED/PS&EMU,
RDSO, Manak Nagar,
Lucknow 226 011.

(Kind Attn.:Shri.Gaurav Mathur, ED/PS&EMU)

Sub.: Review of RDSO specification no.RDSO/PE/SPEC/EMU/0196-2019
(Rev.0) for use in Freight EMU purpose.

Ref.: This office letter of even number dated 22/10/2022.

As per RB directives, ICF is planning to manufacture 15 rakes of Freight EMU on VB platform during 2023-24. Since there is no separate RDSO governing specification for propulsion system for Freight EMU, ICF has planned to procure the same as per RDSO Specification no.RDSO/PE/SPEC/EMU/0196-2019 (Rev.0). Vide this office letter under reference, RDSO was requested to review/amend technical requirements in certain clauses. Copy of the same is enclosed.

RDSO is once again requested to examine the clauses mentioned in the above referred letter and issue necessary amendment to RDSO Spec.No.RDSO/PE/SPEC/EMU/0196-2019 (Rev.0), in order to process for procurement of propulsion system for Freight EMUs.

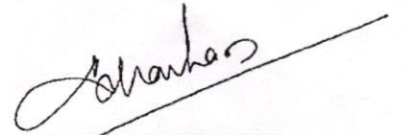
Encl:as above

Copy to:

EDME/Coaching/RB, OSD/EE(G): for kind info .

Secy. To GM : for kind information of GM

PCEE, PCME, CPLE : for kind information


(P.K. CHAUHAN)
मुअई/बिजली CDE/Elecl.

OSD/EE(G)
B
12/1/23

ASO-EE/mxc
- please correct
details and
put up.
12/1/23