

Fax : 0522 - 2465717
Telephone : 0522 - 2454070
e-mail: edse.rds@gmail.com



सत्यमेव जयते

भारत सरकार – रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ – 226011

Government of India - Ministry of Railways
Research Designs & Standards
Organization, LUCKNOW - 226011

Om Prakash Kesari
Principal Executive Director Standards Electrical

D.O.No.EL.8.5.10.1

Dt:05.10.2018

Dear Shri Ghanashyam Singh ji,

Sub: PCDO for the month of August, 2018.

1.0 HIGHLIGHTS

- 1.1 Software to upgrade the power of WAP-5 from 5400 HP to 6000 HP has been successfully developed, tested and implemented. Now this loco will be able to haul 24 coach passenger trains successfully.
- 1.2 SMI no. RDSO/2018/EL/SMI/325(Rev 0) for flushing, filling and testing of coolant to be used in IGBT based WAP5, WAP7, WAH9 and WAG9-H locomotives is been issued.
- 1.3 Modification Sheet No.RDSO/2018/EL/MS/0473 (Rev 0) for Conversion of GTO based convertor into IGBT based convertor in 3-phase electric locomotives has been issued.
- 1.4 The Specification for 1745 lpm oil lubricated compressor for electric locomotives no RDSO/2018/EL/SPEC/0137 Rev 0 dated Sept 2018 has been issued and uploaded on RDSO website vide RDSO letter no EL/3.2.15./3 phase dated 18.09.2018.
- 1.5 Technical audit report of ELS/ET/WCR for maintenance practices of air compressor for electric locomotive has been issued vides RDSO Technical Audit

report no. RDSO/2018/EL/TAR/0020 Rev 0 dated 28.09.2018 vide RDSO letter no EL/3.2.15/3 phase dated 28.09.2018.

- 1.6 Technical Circular No. RDSO/2012/EL/TC/0117, Rev. '0' on codification of year of manufacturing of traction motor & MSU bearings up to year 2015 for Electric Locomotive /EMUs/MEMUs was issued on 16.10.2012. The Technical Circular No. RDSO/2012/EL/TC/0117, Rev. '1' dated 29.09.2018 has been issued which includes codification of year of manufacturing of traction motor & MSU bearings up to year 2026.

2.0 RELIABILITY IMPROVEMENT

- 2.1 Performance review meeting for Carbon Brushes of Hitachi Traction Motors was conducted jointly with Manufacturers, Zonal Railways, CLW and RDSO at ETC/CNB on 07.09.2018. Detailed Minutes of Meeting had been issued vide letter no. EL/2.2.70 dated 28.09.2018 for implementation by the manufacturers & user Railways.
- 2.2 A meeting was held at RDSO on 28.09.2018 with Firm & Railways regarding failure of Traction link used in WAG9 Electric Locomotives. During the meeting it was advised to firms for staggered supply in period of six months and come with complete failure analysis details in further review meeting. Sheds were requested to send failure details to concern firm.
- 2.3 A meeting was held at RDSO on 27.09.2018 with Firm & Railways regarding failure of Spheribloc used in WAG9 Electric Locomotives. During the meeting it was advised to firms for staggered supply in period of six months. M/s BHC, Germany was requested to visit ELD/LGD for finding the cause of failures.
- 2.4 The minutes of meeting held on 24.08.18 at RDSO on performance of pantograph and development of high reach pantograph related issues of brake system for electric locomotive has been released vide RDSO letter no EL/2.2.1/ high reach dated 28.09.2018.
- 2.5 A meeting on reliability improvement of CHT & LA for Electric Locomotive with Zonal Railways and manufacturers held on 05.09.2018 at RDSO, Lucknow. Minutes of meeting were circulated vide letter no. EL/3.2.21 dated 11.09.2018.

- 2.6 A workshop has been organized at ELS/AQ on reliability issues of brake system of electric locomotive on 22.09.2018 with OEM and user railways. This was very useful for chalking out action plan for improvements.
- 2.7 The minutes of meeting held on 29.08.18 at RDSO on reliability related issues of brake system for electric locomotive has been released vide RDSO letter no. EL/3.2.19/3 phase dated 10.09.2018.
- 2.8 The minutes of meeting of performance review meeting of 180 KVA Static converter which was held on 07.09.18 at Kanpur has been released vide RDSO letter no. EL/1.2.9.1 dated 27.09.2018.
- 2.9 A meeting was held at RDSO on 28.09.2018 with Firm & Railways regarding failure of Elastic ring used in WAG9 Electric Locomotives. During the meeting it was advised to firms for staggered supply in period of six months and come with complete failure analysis details in further review meeting. Sheds were requested to send failure details to concern firm.

3.0 PROTOTYPE TESTING/QUALITY AUDIT

- 3.1 The type tests report on the prototype unit of high reach pantograph developed as per RDSO technical specification no. RDSO/2007/EL/Spec/0054 Rev. 2 Nov 2015. by M/s. FTRTIL has been scrutinized by this office and found to be in order. Firm has been advised to supply two prototype units to CLW against CLW P.O. This been informed vide RDSO letter no EL/2.2.1/High Reach dated 12.09.2018
- 3.2 Prototype clearance given to M/s Prag for spheribloc as per drawing no. IA 016-00269 Rev-3
- 3.3 Quality Audit of manufacturing & supply of CRU-150 type of axle box bearing of M/s SKF Technologies (India) Pvt. Ltd., Milestone Kandla
- 3.4 Periodic quality Audit of manufacturing & supply of CRU-150 type of axle box bearing of M/s SKF Technologies (India) Pvt. Ltd., Milestone Kandla 333, Ahmedabad-382220(Gujrat) was conducted on 30.08.2018 & 31.08.2018.
- 3.5 Prototype clearance of Spheriblocs for 3-phase Electric Locomotives as per RDSO's Specification No. RDSO/2007/EL/SPEC/0051, Rev.2 & ABB drawing No. IA 016-00269 Rev-3 has been issued to M/s. Prag Industries (India) Pvt. Ltd., Talkatora

Industrial Estate, Lucknow-226011 vide this office letter No. EL/3.1.35/12 (Prag) dated 20.09.2018 against Central Railway's Purchase Order No. 27173274104661 dated 30.10.2017.

4.0 SPECIFICATION/STR: Nil

5.0 DEVELOPMENTAL ACTIVITIES

5.1 Development of End of Train Telemetry (EoTT)

Railway Board vide it's letter number 2018/Elect(Dev)/181/4 dated 20.8.2018 had advised RDSO to finalize the specification of End of Train Telemetry (EoTT) project. To develop the draft Functional Requirement Specification (FRS), a meeting had been conducted on 10th & 11th Sept, 2018 with EoTT suppliers M/s Siemens Ltd, M/s Inteletrack, M/s Wabtec Corporation & M/s Autometers Alliance & M/s Medha. Based on the inputs received, draft FRS is under preparation and will be uploaded on website for comments by 15.10.2018.

5.2 Development of Re-generative braking feature in WAG7 Locomotive with M/s Medha

Design documents submitted by M/s Medha were examined and RDSO vide letter No. EL/3.2.19/RB/Medha dated 18.09.2018 had sent the comments for compliance. A meeting was conducted with M/s Medha on 27.09.2018 to discuss the comments on the design documents and to review progress of development of re-generative braking. RDSO had advised M/s Medha to expedite the development work and offer for the prototype inspection in October 2018. The Minutes of Meeting was issued vide letter No. EL/3.2.19/RB/Medha dated 27.09.2018 for compliance by M/s Medha.

5.3 Clearance to design documents for VCB of M/s Schneider, Mumbai make has been accorded vide this office letter no. EL/Indig. EMU/Medha dated 18.09.2018.

5.4 Design documents for 1250 kVA IGBT based traction transformer of M/s ABB make for EMU project submitted by M/s Medha, which were scrutinized and M/s Medha has been communicated the deficiencies for the compliance vide this office letter no. EL/Indig. EMU/Medha dated 17.09.2018.

- 5.5 Design documents for Surge Arrester of M/s Siemens make for EMU project submitted by M/s Medha, which were scrutinized and firm has been communicated the deficiencies for the compliance vide this office letter no. EL/Indig. EMU/Medha dated 25.09.2018.
- 5.6 Clearance provided to the submitted data for development of modified WAG-11 locomotive transformer of M/s High-Volt, Mumbai make has been accorded vide this office letter no. EL/3.2.1/3-phase dated 11.09.2018.
- 5.7 Electrical Directorate associated a joint inspection for static testing of CCB interface of locomotive equipped with TCAS at Ghaziabad shed on 19/09/2018.

6.0 OTHER ITEMS:

- 6.1 Design document no. TME/TECH/2018/1001 Rev.02 dated 7.8.2018 for traction motor type IM3302AZ for 25 KV AC 3-phase propulsion for Other than Mumbai project submitted by M/s BHEL through PS & EMU Directorate's note no. EL/1.3.16.7 dated 17.08.2018 had been examined and comments communicated vide Electrical Directorate's note no. EL/3.2.182/OTM/163/BHEL dated 05.09.2018.
- 6.2 Design Document No. TEC-KME-RDMT-S001-04, Version 4(total 242 pages) including 13 attachments of M/s Zhuzhou CRRC TEC for 3-ph IGBT based electrics for Kolkata Metro as per RDSO specification No. RDSO/PE/SPEC/EMU/0182, Rev.1submitted through DSE/Metro's note number EL/MRS/3-phase/Zhuzhou CRRC-Tec dated 24.08.2018 had been examined and comments communicated vide Electrical Directorate's note no. EL/3.2.182/K. Metro/Zhuzhoudated 18.09.2018.
- 6.3 M/s. AIML/ Noida has again applied the online application for fresh registration of 1750 lpm oil lubricated compressor. The application is under scrutiny.
- 6.4 M/s. Hind Rectifier has applied online application for fresh registration for brake system for 3 phase locomotive. The application was scrutinized by this office and not found suitable. Hence, closed. This has been informed to firm vide RDSO letter no. EL/3.2.19/ 3 phase / Hind dated 28.09.2018.

6.5 M/s. Escort Ltd. have applied online application for fresh registration for manufacture and supply of brake system for 3 phase locomotive. The application is under scrutiny.

with regards,

Yours sincerely,

ओमप्रकाश 05/X/18
(Om Prakash Kesari)

**Shri Ghanshyam Singh,
Member Traction,
Railway Board, Rail Bhavan,
New Delhi-110 001**

Copy for kind information to-

Additional Member (Electrical), Railway Board, Rail Bhawan, New Delhi.

ओमप्रकाश 05/X/18
(Om Prakash Kesari)
For Director General/Electrical

Status of un-modified motor support in WAP7 & WAG9/9H three phase locomotives

Rly	Shed	TM location	WAP7	WAG9/9H	Total	Action plan	PDC
CR	AQ	1,2&3	28	214	242	For 242 bogies for TM 1 & 2 position retendered, LOA awarded to M/s Ashika commercial pvt ltd Kolkata on 25.01.2018. 66 bogies completed. For TM 3 position not being changed.	Mar'19
		3			71		
CR	KYN	ALL	0	21	21	19 bogies have been modified by M/s. Anup Malleables, Jharkhand.	Nov'18
ER	HWH	ALL	0	0	0	All modified	NA
ECR	GMO	1&2	0	198	198	Tender awarded to M/s. Ved, Kanpur. Work started in Jan.2018. 79 bogies have been modified.	Mar'19
		3	0	49	49	47 bogies have been modified.	
ECoR	WAT	1&2	0	12	12	All bogies modified by M/s Ved.	NA
		3	0	12	12	5 bogies remaining through store tender.	Dec'18
NR	GZB	ALL	143	0	143	32 bogies modified M/s. Ved, Kanpur.	Jan'19
NR	LDH	ALL	0	0	0	All modified	NA
NCR	CNB	ALL	0	0	0	All modified	NA
SR	RPM	1 & 2	50	0	50	49 bogies modified by M/s Ved Kanpur.	Nov'18
		3	69		69	66 bogies modified.	
SCR	LGD	1&2	60	164	224	138 bogies have been modified by M/s. Ved, Kanpur.	Jan'19 (for TM 1&2 position)
		3	84	206	290	Modification work to be done during POH. But not being done by POH shops.	
SER	TATA	1,2&3	0	40	40	All bogies have been modified by M/s. Anup Malleables, Jharkhand.	NA
		3	0	70	70	21 no. bogies have been modified by M/s Ved, Kanpur. For 49 bogies tender opened but no one participated in tender. Retendering under progress.	Dec.'19
SECR	BIA	1,2&3	16	58	74	46 nos. modified by M/s. Anup Malleables, Jharkhand.	Dec'18
WR	BRC	ALL	0	0	0	All modified	NA
WCR	TKD	1, 2 & 3	39	77	116	Modified PO issued to M/s. Anup Malleables, Jharkhand for 116 bogies for all three locations on 13.02.2018. 31 bogies completed. For 20 bogies for only TM 3 position tender opened and under negotiation.	Mar'19
		3			20		

Annexure- III

Status of modified/unmodified brake lever of WAG-9/9H locomotive as per MS 455 issued on Dec'16

SN	Shed	No. of WAG-9/9H locos	Modified with TBU/PBU	Un-Modified with TBU/PBU	Converted to conventional rigging
1	BSL	15	13	02	0
2	AQ	156	64	92	0
3	KYN	67	0	67	0
4	GMO	179	0	179	0
5	WAT	140	Locos to be checked as per MS 455		0
6	LDH	21	21	0	0
7	CNB	13	9	4	0
8	LGD	112	20	92	0
9	KZJ	31	28	3	0
10	TATA	152	1	151	0
11	BIA	95	31	64	0
12	TKD	80	52	27	1
13	NKJ	25	Locos to be checked as per MS 455		0
14	BNDM	34			0