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भारत सरकार—रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ-226 011
Government of India - Ministry of
Railways
Research Designs & Standards
Organization
LUCKNOW – 226 011

Om Prakash Kesari
Principal Executive Director Standards Electrical

D.O. No.EL.8.5.10.1

Dated: 09.11.2018

Dear Shri Ghanashyam Singh ji,

Sub: PCDO for the month of October' 2018.

1.0 HIGHLIGHT

- 1.1 Specification for Development of End of Train Telemetry (EoTT)**
Draft Functional Requirements Specification (FRS) no. RDSO/2018/EL/FRS/ EoTT Rev. 'Draft' for End of Train Telemetry (EoTT) system for Indian Railways had been prepared and uploaded on RDSO web site for comments and suggestions for one (01) month duration on 05.10.2018 vide note number EL/4.2.15/EoTT dated 05.10.2015.
- 1.2 Code of Procedure for Ultra Sonic Testing of Armature Shaft of NGEF make Traction motor.**
Code of Procedure for Ultra Sonic Testing of Armature Shaft of NGEF make Traction motor(Code of Procedure No. MC-170 of October 2018) had been issued to Metro Railway, Kolkata as well as Rewinding Shops vide RDSO's letter no. EL/3.2.66 dated 23.10.2018.
- 1.3 Performance review meeting was held at ELS/TKD on 30.10.18 in which representatives of Rly. Bd., RDSO, CLW and Zonal Railways participated.**

- 1.4 Technical Circular No. RDSO/2018/EL/TC/0149 Rev.0 dated 27.08.2018 for repair of crack in welding of plate of Pivot Transom sub assembly of bogie frames for WAP7/WAG9 has been revised as Technical Circular No. RDSO/2018/EL/TC/0149 Rev.1 and issued to zonal railways vide this office letter No. EL/3.1.35/2(Bogie) dated 10.10.2018.
- 1.5 A modification sheet No. RDSO/2014/EL/MS/0440(Rev.'1') regarding modification from hand brake to modified hand brake (gear type) arrangement in WAP4 WAP7, WAG7 & WAG5 electric locomotive applications has been revised as RDSO/2014/EL/MS/0440, Rev. '2' & issued to all zonal Railways vide this office letter No. EL/3.2.13/1 dated 31.10.2018.
- 1.6 A modification sheet No. RDSO/2015/EL/MS/0441(Rev.'0') to avoid dropping of slack adjuster assembly(bottom) in case of breakage of its split pin in WAP7 type of three electric locomotive applications has been revised as RDSO/2015/EL/MS/0441, Rev. '1' & issued to all zonal Railways vide this office letter No. EL/3.2.119/3-ph(TBU) dated 31.10.2018.
- 1.7 The Specification for Main Compressor capacity 1745 lpm oil lubricated 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 08.10.2018. This specification is effected from 08.10.2018 which replaces CLW spec no CLW/ES/3/0100 Alt E.

2.0 DEVELOPMENTAL ACTIVITIES

- 2.1. The Quality Assurance Plan (QAP) for manufacturing & supply of Spheriblocs used in WAP5, WAP7 & WAG9 three phase Electric locomotives of M/s Basant Rubber Factory Pvt. Ltd., 103-B, LBS Marg, Vikroli(W), Mumbai-400 083 has been approved provisionally by this office vide this office letter No. EL/3.1.35/12(SB) dated 29.10.2018.
- 2.2. **EOI for Development of End of Train Telemetry (EoTT)**
Expression of Interest (EOI) for development of End of Train Telemetry (EoTT) for Indian Railways had been uploaded on website on 5.10.2018 and published in leading newspapers on 09.10.2018.

- 2.3. EDSE/System along with ADE/System & SSE/System visited M/s BEL, Panchkula premises for the Laboratory tests of indigenous radio equipment for DPWCS being developed by M/s BEL, from 04/10/2018 to 06/10/2018.
- 2.4. SSE/System associated in the field trial of push –pull train operation having one WAP5 loco in front & one in rear having 18 LHB coaches (special Rajdhani) in NZM-BDTS section.
- 2.5. Scheme for conversion of WDG3 loco into Dual mode shunting loco was advised to DLW vide letter no. EL/3.1.28 (DML), dated 16/10/2018.
- 2.6. The equipment layout (Drawing no. 11011684) for conversion of WDG3 loco into Dual mode shunting loco was approved vide letter no. EL/3.1.28 (DML), dated 25/10/2018.
- 2.7. The STR Verification and capacity assessment of M/s. AIML/ Noida on 1750 LPM compressor has been carried out by this office and found suitable for development of Main compressor (lubricated). Firm has been informed vide RDSO letter no EL/3.2.15/3 phase (AIML) dated 23.10.2018.
- 2.8. M/s. Escort Ltd. had submitted online application for fresh registration for manufacture and supply of brake system for 3 phase locomotive. The application was scrutinized and the clarifications on the deficiencies submitted by firm. After final scrutiny, the application has been accepted by competent authority. Intimation letter has been issued to firm vide EL/3.2.19/3-ph/Escort dt 29.10.2018.
- 2.9. Vide letter no. EL/3.1.35/17(Medha) dated 29.10.18, Medha had been asked to make protection logic & messaging make propulsion system similar to MICAS & modified software may be downloaded in 5 locos each in ELS/LGD & ELS/TATA for validation.
- 2.10. COCR trial of WAP5 loco in push pull mode had been completed. The software of WAP5 loco had been suitably modified to negotiate the neutral section.
- 2.11. Vide letter no. EL/11.5.5/21 dtd. 29.10.18, approval was accorded to M/s BTIPL for regular cut-in of software package 318T01BT (WAG9H) and software package 218T01BT (WAP7) in all BTIPL make traction converter.

3.0 RELIABILITY IMPROVEMENT

- 3.1 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. The minutes of meeting (MOM) has been issued vide this office letter No. EL/3.1.35/12 dated 01.10.2018.
- 3.2 A meeting 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. The minutes of meeting (MOM) has been issued vide this office letter No. EL/3.1.35/12 dated 09.10.2018.
- 3.3 A meeting 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. The minutes of meeting (MOM) of has been issued vide this office letter No. EL/3.1.35/12 dated 09.10.2018.
- 3.4 Performance Review Meeting had been conducted at ELS/TKD on 30.10.2018 for punctuality loss cases on locomotives account for the period of 01.04.2018 to 30.09.2018. The meeting was attended by Railway Board, RDSO, CLW, Eastern Railway, East Central Railway, Northern Railway, Southern Railway and South Eastern Railway. Detailed discussions were held on failure analysis and action plan to improve the reliability of locomotives.
- 3.5 Performance review meeting on Microprocessor based control and fault diagnostic system (MPCS) was held at ETC/CNB on 07.09.2018. The minutes of performance review meeting on Microprocessor based control and fault diagnostic system (MPCS) had been issued vide letter no. EL/4.2.15/Gen. dated 25.10.2018.
- 3.6 A workshop has been arranged at ELS/AQ on reliability issues of brake system of electric locomotive on 22.09.2018 with RDSO officials along with OEM and user Railways. The details presentation has been uploaded in website.
- 3.7 Status of Motor support modification, brake lever modification and RAP of 3-phase locos, are enclosed as Annexure I, II & III respectively.

4.0 SPECIFICATION/STR

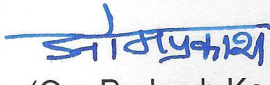
- 4.1 Vide letter no. EL/11.5.5/8 dated 24.10.18, Zonal Railways and Firms had been asked to give their comments on the final draft guideline for repair / rehabilitation of electric card (PCBs) of 3-phase electrical locomotives.
- 4.2 A modification sheet No.RDSO/2018/EL/MS/0471 (Rev'0') for modification in the bottom plate of M/s Schneider make single bottle VCBs has been issued vide RDSO's letter No.EL/3.2.61/3 dated 24.10.2018.

5.0 OTHER ACTIVITIES

- 5.1 Design documents submitted by M/s Medha for Traction motor type TME-45-40-4 for IGBT based 3 phase drive propulsion of Metro Railway Kolkata were examined and Electrical Directorate vide note No. EL/3.2.182/KM/166 (Medha) dated 01.10.2018 had sent the comments to PS & EMU directorate.
- 5.2 Type Test & Special Test Schedule Document No. TM 20208 Rev.04 dated 29.09.2018 submitted by BHEL for traction motor type IM3302AZ for 25 KV AC IGBT based 3-Phase Electrics (On Board Mounted) for AC MEMUs was examined and was provisionally approved vide Electrical Directorate's note no. EL/3.2.182/OTM/163/BHEL dated 18.10.2018.
- 5.3 Draft amendment no.1 to final speed certificate for operation of train WAGC3 loco converted from WDG3A was examined and comments were furnished to Motive Power directorate vide note no. EL/3.1.28, dated 31/10/2018.

with regards,

Yours sincerely,

 09/11/18
(Om Prakash Kesari)

Encl: Annexure I, II & III

**SHRI GHANSHYAM SINGH,
MEMBER ELECTRICAL,
RAILWAY BOARD, RAIL BHAVAN,
NEW DELHI-110 001**

Copy to-

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

ओमप्रकाश 09/11/18
(Om Prakash Kesari)

For Director General/ Electrical

Annexure-I

**Status of un-modified motor support (TM-1 & 2 locations) in WAP7 & WAG9/9H
three phase locomotives**

[Position up to October-2018]

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. 34 bogies completed. For TM 3 position not being changed.	Mar'19
		3			71		
CR	KYN	ALL	0	21	21	16 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	0	69	66 bogies modified.	
SCR	LGD	1&2	68	161	224	93 bogies have been modified by M/s. Ved, Kanpur.	Jan'19
		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 on 26.09.2018 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- II

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

[Position up to October-2018]

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	0	140	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	0	25	0
14	BNDM	34	0	34	0
Total		1120	239	880	1

Railway	Shed	Replacement of EPROM after 6 years of service		Create low pressure zone by providing Baffle plates		Blocking leak holes in the Machine Room		Reed relay modification		Cab redundancy modification	
		No. of Locos to be done	Cumulative up to date	No. of Locos to be done	Cumulative up to date	No. of Locos to be done	Cumulative up to date	No. of Locos to be done	Cumulative up to date	No. of Locos to be done	Cumulative up to date
CR	AQ	100	53	175	175	175	175	169	169	169	73
CR	KYN	0	0	64	64	64	64	64	0	64	64
ECOR	WAT	0	0	0	0	0	0	0	0	0	0
ECR	GMO	82	47	195	195	195	195	162	162	163	128
ER	HWH	3	3	25	25	25	25	25	25	25	25
NCR	CNB	0	0	28	15	28	15	0	0	28	13
NR	GZB	99	65	87	87	187	187	148	148	87	87
NR	LDH	0	0	27	27	27	27	27	27	27	0
SCR	LGD	86	24	176	176	176	176	161	161	161	158
SECR	BIA	14	14	114	114	114	114	102	102	114	114
SER	TATA	4	0	152	152	152	152	152	152	157	19
SR	RPM	0	0	82	82	82	82	63	63	82	71
WCR	TKD	39	39	153	153	153	153	153	153	119	71
WR	BRC	9	4	90	90	90	90	83	83	90	64
Grand	TTL	436	249	1368	1355	1468	1455	1309	1245	1286	887