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Om Prakash Kesari
Principal Executive Director Standards Electrical

D.O.No.EL.8.5.10.1

Dt:02.07.2019

Dear Shri S.N. Agrawal ji,

Sub: PCDO for the month of June, 2019.

1.0 HIGHLIGHTS

1.1 Development of End of Train Telemetry(EoTT)

RDSO had developed the Functional Requirements Specification (FRS) for End of Train Telemetry (EoTT) and issued as FRS No. RDSO/2019/EL/FRS/0025, Rev'0' dated 25.06.2019. SER & ECOR each had also been advised to procure 5 sets of EOTT as proof of concept for field trials vide letter No. EL/4.2.15/EoTT dated 26.06.2019.

1.2 DSE-TPS has attended the course on Strategic management conducted by ISB/Mohali from 24-06-2019 to 29-06-2019.

2.0 RELIABILITY IMPROVEMENT

2.1 Modification Sheet NO. RDSO/2012/EL/MS/ 0415 (Rev.'0'), Amendment 3 dated 19.06.2019

Modification Sheet NO. RDSO/2019/EL/MS/ 0415 (Rev. '0'), Amendment 3 dated 19.06.2019 to ensure adequate interference between assembly components of TM type 6FRA6068 (rev.0) Amendment '3' had been prepared and issued to all concerned vide letter No. EL/3.2.182 dated 19.06.2019. It is expected that implementation of this amendment of modification will improve reliability of assembly components of Traction motors of Electric locomotives.

- 2.2 A meeting was held at RDSO on 19.06.2019 regarding performance of pantograph type WBL 22.03 provided on EMU rakes running in Mumbai Suburban.
- 2.3 Vide letter no. EL/4.2.17 dated 12.06.2019, MOM held at RDSO on 10.06.2019 with manufacturers of TCN VCU to discuss on reliable scheme for operation of trains in Push-Pull mode of 3-phase electric locomotives had been issued.
- 2.4 A meeting was held at RDSO on 06.06.2019 with Railways and Firm's representatives to discuss the reliability issue of traction link for 3-phase Electric Locomotives. The minutes of meeting (MOM) for the same has been issued vide this office letter No. EL/3.1.35/12 dated 10.06.2019 to firms & Railways. During the meeting performance of traction link was reviewed and advised to M/s. KMRI, Howrah & M/s. TEW, Kolkata to improve the quality to reduce failure rate.
- 2.5 A meeting was held at RDSO on 18.06.2019 with Railways and Firm's representatives regarding the reliability issues of CBC/Draft Gear used in Electric Locomotives. The minutes of meeting (MOM) for the same has been issued vide this office letter No. EL/3.2.119 (CBC) dated 21.06.2019 to firms & Railways. During the meeting performance of CBC was reviewed and advised to manufacturers to improve the quality of E-type CBC.
- 2.6 A meeting was held at RDSO on 18.06.2019 with Railways and Firm's representatives regarding the reliability issues of Side Buffer used in Electric Locomotives. The minutes of meeting (MOM) for the same has been issued vide this office letter No. EL/3.2.119 (Side Buffer) dated 21.06.2019 to firms & Railways. During the meeting performance of side buffer was reviewed.
- 2.7 Re-testing of M/s High-Volt make improved 1300 kVA EMU transformer against indigenous EMU project awarded to M/s Medha as per ICF P.O. no. 08/16/2808/1393/F dated 14.07.2017 done from 06.06.2018 to 08.06.2018 witnessed by RDSO official at M/s High-Volt Boisar, Mumbai works.
- 2.8 A meeting was conducted with representatives of SER, CLW & manufacturers of DPWCS, brake systems and TCN VCU at RDSO, Lucknow on 11.06.2019 on interfacing of DPWCS with brake system and TCN VCU. MOM has been issued & circulated vide letter no. EL/3.1.3/DPWCS, dated 12.06.2019.

- 2.9 A meeting was conducted at RDSO on 20.06.2019 with M/s Laxmi Hydraulics (P) Ltd (LHP), Solapur & ELS/GMO/ECR to discuss the failures of 30 kW OCB motors supplied by M/s LHP. Minutes of Meeting (MOM) was signed & received by participants.

3.0 DEVELOPMENTAL ACTIVITIES

- 3.1 Vide letter no. EL/3.2.19/3-Phase (Hind) dtd. 03.06.2019, RDSO had accepted M/s Hind Rectifier's line fresh vendor registration application for manufacturing and supply of brake system for 3- phase Electric Locomotive as per RDSO's specification no. RDSO/2017/EL/SPEC/0126, Rev.'0', revised STR-0076 Rev.1 dtd. 10.04.2019 and clarification of deficiencies submitted by firm for further processing.
- 3.2 Vide letter no. EL/1.2.9.1/Hind dtd. 10.06.2019, RDSO had accepted M/s Hind Rectifier's line fresh vendor registration application for 2 x 130 kVA SIV as per RDSO's specifications no. RDSO/2018/EL/SPEC/0140 Rev.0 and clarification of deficiencies submitted by firm for further processing.
- 3.3 Vide letter no. EL/1.2.9.1/ABB dtd. 10.06.2019, RDSO had accepted M/s ABB's line fresh vendor registration application for 2 x 130 kVA SIV as per RDSO's specifications no. RDSO/2018/EL/SPEC/0140 Rev.0 and clarification of deficiencies submitted by firm for further processing subject to submission of correct power of attorney affidavit.
- 3.4 As per guideline of Railway Board all the new procurement of SIV by Railways shall be done with RDSO's revised specification. In this reference RDSO had made a scheme for replacement of 2 x 130 kVA SIV of new design for WAP-4 and WAG-7 types of locomotive and mounting dimensions of new design of 2 x 130 kVA SIV and its choke (Module A & B). The scheme for replacement is provisional and railways may fit the equipment as per their convenience. In this regard a letter to all railways had been issued vide letter no. EL/1.2.9.1 dtd. 03.06.2019.
- 3.5 Vide letter no. EL/3.2.15/3-phase dtd. 10.06.2019, QAP for lubricated compressor Model RR20100 CGM for electric locomotives of M/s ELGI Equipments Limited, QAP document no. QP/RLY/RTY/36 dtd. 17.08.2011 Rev.2 dtd. 15.04.2019 had been approved.
- 3.6 Vide letter no. EL/2.2.1/High Reach dtd. 13.06.2019, the revised GA drawing of M/s Faively Transport Rail Technologies India Ltd., no. V

EO43116-0102, Rev. 'B 2' dtd. 12.06.2019 of high reach Pantograph type LX 3600 PN for speed up to 200 kmph as per Specification no. RDSO/2007/EL/SPEC/0054, Rev.'2' Nov. 2015 had been examined and found generally in order.

- 3.7 Fresh registration of M/s Mersen India Pvt. Ltd. for Metalized Carbon Stripes for pantograph with Auto dropping device and on line fresh registration application submitted had been scrutinized and deficiencies advised vide letter no. EL/2.2.25/ADD/Mersen dtd. 12.06.2019.
- 3.8 Prototype clearance of Spheriblocs for 3-phase Electric Locomotives as per RDSO's Specification No. RDSO/2007/EL/SPEC/0051, Rev.2 and ABB drawing Nos. IA 016-00005(Rev-3) has been given to M/s. Prag Industries (India) Pvt. Ltd., Talkatora Industrial Estate, Lucknow-226011 against South East Central Railway's PO No. 02181727102930 dated 12.11.2018 vide this office letter No. EL/3.1.35/12 (Prag) dated 21.06.2019.
- 3.9 Capability cum capacity assessment of M/s Avadh Rail Infra Ltd., , Plot No. 105, Sector-07, IIE, Sidcul, Haridwar (Unit-II)-249 403, Uttarakhand has been carried out on 17.06.2019 for vendor registration for manufacturing and supply of Spheriblocs for three phase electric locomotives as per STR No. RDSO/2008/EL/STR/0050, Rev.1 of March '2018.

4.0 PROTOTYPE TESTING/QUALITY AUDIT

- 4.1 Prototype testing of six sets of assembly components (Stator Chamber, End Frames, Labyrinths etc.) of traction motor type 6FRA-6068 manufactured by M/s Narmada Equipments Pvt. Ltd., Bhopal had been conducted jointly by RDSO & CLW from 20.06.2019 to 28.06.2019. Type test results are under scrutiny.
- 4.2 Vide letter no. EI/3.2.19/3-Phase (Hind) and EL/1.2.9.1/Hind dtd. 12.06.2019, Hind Rectifier had been informed that RDSO official will be available on 25.06.2019 & 26.06.2019 for capability/capacity assessment for Computer/Microprocessor Controlled Air Brake System for 3-Phase Electric Locomotive and 2 x 130 kVA SIV respectively.

- 4.3 Vide letter no. EL/1.2.9.1/ABB dtd. 12.06.2019, ABB had been informed that RDSO official will be available on 28.06.2019 & 29.06.2019 for 2 x 130 kVA SIV.

5.0 SPECIFICATION/STR:

- 5.1 Functional Requirement Specification(FRS) No. RDSO/2019/EL/FRS/0025, Rev'0' dated 25.06.2019
- 5.2 Functional Requirement Specification(FRS) No. RDSO/2019/EL/FRS/0025, Rev'0' for End of Train Telemetry(EoTT) system for Indian Railways has been prepared and issued on 25.06.2019.
- 5.3 Vide letter no. EL/3.1.14 dtd. 10.06.2019, revised spec. no. RDSO/2008/EL/Spec/0025 Rev. 6 (JUNE 2019) for vigilance control device (VCD) in conventional electric locomotive had been issued and uploaded on RDSO's website.
- 5.4 Modification Sheet no. RDSO/2019/EL/MS/0477(rev-0) dated 18-06-2019 for operation of WAP-5/WAP-7 Locomotive in push-pull mode.
- 5.5 Guideline no. EL/G/2008/01, Rev-4 for repair/rehabilitation of PCB cards in 3-phase electric locomotives has been issued vide this office letter no. EL/11.5.5/8 dated 21-06-2019.
- 5.6 RDSO has uploaded the draft Functional Requirement Specification no: RDSO/2019/EL/SPEC/0xxx (Rev.0)) titled as "Draft Functional Requirement specification (FRS) of 4-Quadrant Converter for conventional Electric locomotives converted from diesel (ALCO) locomotive" on RDSO website for suggestions/comments. The copy of subject draft FRS has been emailed to all the Railways vide this office letter no. EL/3.2.1/4QC, dated 17.06.2019.

6.0 OTHER ITEMS

- 6.1 RDSO officials visited M/s Bharat Electronics Limited, Panchkula on 14.06.2019 to discuss the development of Indigenous Radio equipment for Distributed Wireless Control System (DPWCS) & other communication solutions for Indian Railways.
- 6.2 RDSO official along with CRIS & Bharat Electronics Ltd. (BEL), Panchkula visited ELS/LDH on 15.06.2019 for identifying the space in CABIN-2 of

WAP4 locomotives for fitment of Indoor Unit (IRN) of Real Time Train Information System (RTIS). Joint note was prepared & issued.

- 6.3 RDSO official visited CLW on 01.06.2019 for arranging of wheel sets of WAP5 & WAG9H locos for development of Instrumented Wheel Sets by Testing Dte. /RDSO. The wheel sets have been received by Testing Directorate.
- 6.4 Schematic for placement of Indoor unit (IRN) of Real Time Train Information System (RTIS) in WAP5/WAP7/WAG9/WAG9H locos as received from CRIS was examined & responded to CRIS vide letter no. EL/3.1.28 (RTIS) dated 25.06.2019

7.0 Fresh Vendor Registration application during June, 2019

Group	No. of Online Application received	No. of Application registered after fee verification in June' 2019	No. of application where query raised	No. of application rejected due to deficiencies
TM Group	01	01	-	-
PNGroup	01	01	-	-

with regards,

Yours sincerely,

ओमप्रकाश 02.7.19

(Om Prakash Kesari)

**Shri S.N.Agrawal,
Member Traction,
Railway Board, Rail Bhavan,
New Delhi-110 001.**

Copy for kind information to-

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

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

Rly	Shed	TM location	WAP7	WAG9H	Total no. of bogies	Action plan	PDC
CR	AQ	1,2	28	214	242	168 bogies have been modified by M/s Ashika commercial pvt. Ltd Kolkata. 74 bogies yet to be modified. For TM 3 position not being changed.	Aprl'20
		3	16	226	242		
ECR	GMO	1&2	0	198	198	Tender awarded to M/s. Ved, Kanpur. Work started in Jan.2018. 140 bogies have been modified.	Dec'19
		3	0	49	49		
NR	GZB	ALL	143	0	143	All bogies have been modified 60 bogies modified M/s. Ved, Kanpur. No material available with shed for modification of balance bogies.	Dec'19
SCR	LGD	1&2	68	164	232	All bogies modified.	
		3	84	206	290	Balance 240 bogies. Modification work to be done during POH. BSL shops not doing the modification. KPA is doing the modification.	
SCR	KZJ	3	0	102	102	9 bogies Yet to be modified	Dec.'19
SER	TATA	3	0	70	70	21 no. bogies have been modified by M/s Ved, Kanpur. For 49 bogies, retendering has been closed. The same yet to be opned.	Dec.'19
WCR	TKD	1, 2 &3	39	77	116	109 bogies have been modified by M/s M/s. Anup Malleables, Jharkhand. 7 bogies yet to be modified.	Oct'19
		3	8	12	20	For TM 3 position, 16 bogies modified.	June'19

Note: As informed by Sr. DEEs all modified bogies in the following sheds:

KYN, HWH, WAT, LDH, CNB, BRC, BSL, ED, BNDM, SRC, ET, NKJ, BIA, RPM

Annexure-II

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

Rly	Shed	TM location	WAP7	WAG9H	Total no. of bogies	Balance to be modified	PDC
CR	AQ	1,2	28	214	242	78	Dec'19
		3	16	226	242	242	Not being changed
ECR	GMO	1&2	0	198	198	58	Dec'19
		3	0	49	49	0	
NR	GZB	ALL	143	0	143	83	Dec'19
SCR	LGD	1&2	68	164	232	0	June'19
		3	84	206	290	240	Through POH shop
SCR	KZJ	3	0	102	102	9	Dec.' 19
SER	TATA	3	0	70	70	49	Dec.'19
WCR	TKD	1, 2 & 3	39	77	116	7	Oct'19
		3	8	12	20	4	June' 19

Note: As informed by Sr. DEEs all modified bogies in the following sheds:

KYN, HWH, WAT, LDH, CNB, BRC, BSL, ED, BNDM, SRC, ET, NKJ, BIA, RPM

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	16	15	01	0
2	AQ	158	80	78	1
3	KYN	69	16	53	0
4	GMO	177	0	177	0
5	WAT	140	13.5	125.5	1
6	LDH	51	22	0	29
7	CNB	42	9	3	30
8	LGD+GY(D)	104+7(WAG9HC)	27	76	1+7(WAG9HC received from CLW)
9	KZJ +GY(D)	51	27	10	14
10	TATA	152	1	151	0
11	BIA	102	31	69	2
12	TKD	103	81	1	21
13	NKJ	29	11	14	4
14	BNDM	41	18	19	4
Total		1230	306.5	822.5	101