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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

Date: 05.04.2018

Dear Shri Ghanshyam Singh ji,

Subject: PCDO for the month of March, 2018.

1.0 HIGHLIGHTS

- 1.1 A meeting with suppliers of Speed Sensors regarding reliability and interchangeability was held on 19.03.18 at ELS/TKD wherein zonal railways and representatives from industry participated and issue of maintainability and interchangeability were discussed in detail. Based on discussion a technical circular was issued.
- 1.2 A performance review meeting was conducted on 16.03.2018 at ELS/TKD/WCR with vendors and railway officials regarding reliability issues of 180 KVA Static Converter and action plan is drawn to resolve the failures of 180 KVA Static Converter . The status of AMC of 180 KVA Static Converter has also been discussed. The minutes of meeting have been issued vide RDSO letter no EL/1.2.9.1 dated 21.03.2018 and uploaded on website.
- 1.3 M/s KBIL has installed new software in two WAP-5 type locomotive at ELS/GZB & ELS/BRC for field trial which provides the less booting time in CCB system and hence prevent from false fault logging by DDS. After successful field trial permission has been granted to install new software vide this office letter no EL/3.2.19/3 phase/ CCB dated 06.03.18.

- 1.4 Special Maintenance Instruction no. RDSO/2018/EL/SMI/0319(Rev.0) for maintenance of Oil Cooling Unit (OCU) for 3-phase Electric Locomotives has been issued on 15/03/2018.
- 1.5 A meeting was held at RDSO on 08.03.2018 with firms to discuss the useful features of video borescope and its uses in Electric Locomotives. The minutes of meeting (MOM) and Technical Circular No. RDSO/2018/EL/TC/0144 (Rev.0) dated 27.03.2018 for the same have been issued vide this office letter No. EL/DSE-4/BoreScope dated 13.03.2018 & 27.03.2018 respectively to Zonal Railways.
- 1.6 Functional Requirement Specification no. RDSO/2015/EL/SPEC/0119 (Rev '2') for fuel cell sensor based Breath Alcohol Analyzer for general purpose use on Indian Railways has been issued on 15.03.2018 and uploaded on RDSO's website.
- 1.7 Schedule of Technical Requirements No. RDSO/2008/EL/STR/0050, Rev. '1' for spheriblocs and membranes of Hurth coupling of three phase Electric Locomotive has been finalized on 22.03.2018 and issued to industries and zonal railways.

2.0 RELIABILITY IMPROVEMENT

- 2.1 Vide letter no. EL/11.5.5/1/IGBT/CGL dated 23.03.18; Minutes of Meeting with M/s.CGL on IGBT based converters of 3-phase electric locomotive was issued.
- 2.2 A meeting was convened at RDSO on 28.03.2018 with OEMs, Railways & CLW to review the performance of ESMON for Electric Locomotives. Vendors were requested to improve the quality and expedite warranty attention.
- 2.3 A meeting was convened at RDSO on 14.03.2018 with CLW for finalization of OCU specification of three phase Electric Locomotives vide letter no. EL/3.2.176/2, dated 28/02/2018. MOM was circulated to Railway Board & CLW vide letter no. EL/3.2.176/2, dated 14/03/2018.
- 2.4 Reliability improvement & performance review meeting with VCB manufacturers, Railways and RDSO representatives has been conducted in Electrical Dte. of RDSO, Lucknow on 28.03.2018. Vendors were requested to improve the quality and expedite warranty attention.
- 2.5 A meeting was held at RDSO on 28.03.2018 with M/s. Goel Enterprises, New Delhi on modified pulley type hand brake for WAP-4, WAG-7 and WAP-7 electric locomotive application.

3.0 PROTOTYPE TESTING/QUALITY AUDIT

- 3.1 The wind tunnel test of high reach pantograph supplied by M/s. Faiveley transport Rail technologies India Limited has been carried out at IIT/ Kanpur. Same has been witnessed by RDSO. Shock & vibration test at CPRI/Bangalore has also been carried out. Endurance test is under progress in their works premises.
- 3.2 Prototype clearance of M/s High-Volt make 1250 kVA traction transformer for AC-DC Siemens EMU rakes has been accorded and issued vide this office letter no. EL/4.3.35/AC-DC dated 01.03.2018 on successful completion of type test carried out at M/s High-Volt's works, M/S ERDA, Vadodara & CPRI, Bhopal.

4.0 SPECIFICATION/STR

- 4.1 The specification of EP assist brake system for 3 phase locomotive has been finalized and Railway Board has been requested to issue suitable directive for provision of EP assisted brake system for 3 phase Electric locomotive vide this office letter no EL/3.2.19/3 phase/ EP Assist dated 19.03.18.
- 4.2 The specification of oil lubricated compressor capacity 1750 LPM was prepared and during finalization it was decided that the specification of oil lubricated compressor capacity 1750 LPM is to be reviewed again and to be redrawn in line with the existing specification of CLW no CLW/E5/3/0100 Alt E and relevant standards

5.0 DEVELOPMENTAL ACTIVITIES

- 5.1 Vide letter no. EL/11.5.5/20 dated 19.03.18; details on conversion of WDG4 HHP loco to WAGC4 electric locomotive had been issued.
- 5.2 Provision of SOAEB (System operated automatic emergency brake) system has been permitted for field trial in one 3 - phase electric locomotive of ELS/TATA, AQ & RPM. This system will resolve the problem of non brake application by A- 9 in case of brake electronics failure of E 70 brake system.
- 5.3 Capability cum capacity assessment of M/s Universal Cables Limited, South Goa against their fresh vendor registration application bearing reference id : 138 for manufacturing and supply of flexible HRPVC cables with copper conductor power rolling stock application as per specification no. E-14/1 Part – III, Rev. II with amendment no. 1 has been carried out on 9th and 10th March 2018.
- 5.4 Vide letter no. EL/3.1.35/24 dated 12.03.18, design review/comments of Traction Motor and validation of WAG12 had been issued to M/s. MELPL.

- 5.5 Vide letter no. EL/3.1.35/24 dated 21.03.18, Minutes of Meeting held on 19.03.18 and 20.03.18 regarding oscillation trials and Design Review had been issued to M/s.MELPL.
- 5.6 Vide letter no. EL/3.1.35/24 dated 22.03.18 design comments on Battery Charger validation Rev.2 as per Procurement cum Maintenance of Electric Locomotive Factory at Madhepura had been issued.

with regards,

Yours sincerely,

ओमप्रकाश 05.4.18
(Om Prakash Kesari)

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

Copy to-

1. Additional Member (Electrical),)
Railway Board, Rail Bhawan,)
New Delhi.)
2. Secy to DG/RDSO)

For kind information

ओमप्रकाश 05.4.18
(Om Prakash Kesari)
For Director General/Electrical

Annexure-I

		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	
Railway	Shed	<u>No. of Locos to be done</u>	<u>Cumulative up to date</u>	<u>No. of Locos to be done</u>	<u>Cumulative up to date</u>	<u>No. of Locos to be done</u>	<u>Cumulative up to date</u>	<u>No. of Locos to be done</u>	<u>Cumulative up to date</u>	<u>No. of Locos to be done</u>	<u>Cumulative up to date</u>
CR	AQ	100	53	169	169	169	169	169	169	169	73
CR	KYN	0	0	64	155	64	155	64	155	64	181
ECOR	WAT	0	0	0	140	0	140	0	140	2	133
ECR	GMO	69	43	157	157	157	157	157	120	157	60
ER	HWH	3	3	25	25	25	25	25	32	25	25
NCR	CNB	0	0	8	8	8	8	0	0	8	8
NR	GZB	90	61	86	86	151	151	124	124	87	87
NR	LDH	0	0	21	21	21	21	21	21	21	0
SCR	LGD	86	24	176	176	176	176	161	161	161	158
SECR	BIA	10	3	71	46	71	71	64	18	71	31
SER	TATA	4	0	135	200	135	211	135	173	102	119
SR	RPM	0	0	56	56	56	56	56	56	56	55
WCR	TKD	30	30	130	130	130	130	130	130	130	57
WR	BRC	2	2	84	84	84	84	83	83	22	22
Grand	TTL	394	219	1182	1453	1247	1554	1189	1382	1075	1009

Annexure-II

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

Rly	Shed	TM location	WAP 7	WAG9/9 H	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. Work not yet started.	Sept'18
		3			71		
CR	KYN	ALL	0	21	21	4 bogies have been modified by M/s. Anup Malleables, Jharkhand.	Mar'18
ER	HWH	ALL	0	0	0	All modified	N/A
ECR	GMO	ALL	0	49+198*	247	Tender awarded to M/s. Ved, Kanpur. Work started in Jan.2018. 58 bogies have been modified.	Dec' 18
ECOR	WAT	1,2&3	0	12*	12	Material received from M/s. Ved, Kanpur. Work not started yet.	May'18
		3	0	10	10		
NR	GZB	ALL	143	0	143	Material received for 10 bogies from M/s. Ved, Kanpur. Work not started yet.	Jan'19
NR	LDH	ALL	0	0	0	All modified	N/A
NCR	CNB	ALL	0	0	0	All modified	N/A
SR	RPM	1,2&3	50	0	50	10 bogies modified by M/s Ved Kanpur.	Aug'18
		3	17		17		
SCR	LGD	1&2	68	161	229	21 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.	
SER	TATA	1,2&3	0	40*	40	12 bogies have been modified by M/s. Anup Malleables, Jharkhand.	Dec'18
		3	0	66	66	21 no. bogies have been modified by M/s Ved, Kanpur. For 49 bogies, tender with head quarter for finalization.	Jun'18
SECR	BIA	1,2&3	16	58	74	10 nos. modified by M/s. Anup Malleables, Jharkhand.	Dec'18
WR	BRC	ALL	0	0	0	All modified	N/A
WCR	TKD	1&2	37	73*	110	Modified PO issued to M/s. Anup Malleables, Jharkhand for 116 bogie for all three locations on 13.02.2018. Work not started yet.	Jan'19
		3	46	73	119		