



No. EL/1.2.9.1/SIV

Dated As signed

**Principal Chief Electrical Engineer,**

- |  |  |
|--|--|
| 1. Central Railway, Mumbai CST-400 001                         | 2. North Western Railway, Jaipur-302 006                     |
| 3. East Central Railway, Hazipur-844 101                       | 4. South Central Railway, Rail Nilayam, Secunderabad-500 071 |
| 5. East Coast Railway, Chandrashekharapur, Bhubaneswar-751 016 | 6. South East Central Railway, Bilaspur- 495 004             |
| 7. Eastern Railway, Fairlie Place, Kolkata-700 001             | 8. South Eastern Railway, Garden Reach, Kolkata-700 043      |
| 9. North Central Railway, Subedarganj, Allahabad-211 033       | 10. Southern Railway, Park Town, Chennai-600 003             |
| 11. Northern Railway, Baroda House, New Delhi-110 001          | 12. South Western Railway, Hubli-580 024                     |
| 13. North Eastern Railway, Gorakhpur-273001                    | 14. West Central Railway, Jabalpur-482 001                   |
| 15. North East Frontier Railway, Maligaon, Guwahati-781 011    | 16. Western Railway, Churchgate, Mumbai-400 020              |

**Sub:** MOM of Performance Review Meeting on problems reported by Zonal Railways on 180 and 2x130 KVA SIV of conventional electric locos.

1. Railways have reported high failures of 180 KVA SIV of conventional electric locos. In this connection, a performance review meeting with 180 KVA SIV manufacturers involving Zonal Railways for identifying actions for improving the reliability was conducted at RDSO on **29.05.2025**. The issues of 2x130 KVA SIV were also discussed in the meeting.
2. MOM of the meeting is attached for taking necessary action for improving the performance of 180 and 2x130 KVA SIV of conventional electric locos.

Encl: As above

( Rajesh Kumar )  
Director Standard./Elect.(Pn).

Copy to:

1. Secretary (Electrical), Railway Board, Rail Bhavan, New Delhi-110001 (Kind Attn.: Shri Avinash Singh Kushwah, EDEE/RS/RB)	:	for kind information please.
2. M/s Hind Rectifiers Limited, Lake Road, Bhandup (W), Mumbai-400 078.	:	It is advised to take action as per MOM.
3. M/s.Siemens, Plot 6A, Maruti Industrial Area, Sector 18, Huda,Gurgaon – 122015.	:	
4. M/s. Medha Servo Drives Pvt. Limited, P-4/5B, Industrial Park, Nacharam Hyderabad – 500 076.	:	
5. M/s Autometers Alliance Ltd., C-63, Sector-57, Noida-201 307.	:	
6. M/s ABB India Limited, Survey no. 88/3, 88/4, Basavanahalli Village Kasaba Hobli, Nelamangala Bangalore, Karnataka – 562 123, India.	:	

Encl: As above

( Rajesh Kumar )  
Director Standard./Elect.(Pn).

**Minutes of meeting held at RDSO/Lucknow on 29-05-2025 regarding problems reported by Zonal Railways on 180 KVA SIV & 2x130 KVA SIV of Conventional Locomotives for identifying actions for improving the reliability of 180 & 2x130 KVA SIV**

**Members present: As per list attached as Annexure-II**

1. Director Standard Electrical (Pneumatic), RDSO on behalf of PED/SE welcomed all the participants from Railways & SIV OEMs for the meeting and expressed serious concern about high rate of failures of 180 KVA SIVs on conventional locomotives.
2. Zonal Railways have informed that after fault, RCA is not being shared by OEMs of SIVs. Railways have also reported poor response from ABB & M/s Siemens. All the OEMs are advised to share Root Cause Analysis(RCA) & Reliability Action plan to concerned Railway as well as RDSO for its proper monitoring.
3. Zonal Railways reported that all the firms are not utilizing Shock Pulse Meters for condition monitoring of bearings and rotating components, which is critical for predictive maintenance and failure.
4. Firm wise analysis of failures and progress of implementation of modifications were discussed during the meeting. RDSO presented the components wise failures reported by Zonal Railways for 2024-25. Firm wise summarized performance report is attached as **Annexure-I**. All the OEMs are advised to submit the action taken report on monthly basis.
5. Performance issues raised by railways as well as failures data received from them has been discussed & deliberated with each firm. Action to be taken by each OEM of SIVs for reliability improvement of 180 KVA & 2x130 KVA SIVs is summarised as under:

SN	Failures description/issues	Reliability Action Plan
1	<b>AAL 180 KVA SIV</b>	Total Population: 724, Under AMC: 663, Out of AMC:63
i)	MCU/Main Control Card	Replacement of Q-CON relay of MCU cards which has completed service life of 8 years or more. M/s AAL has replaced 50 nos. so far. PDC: 30 <sup>th</sup> Sep 2025  Shifting of DCCT from before the choke to after the choke, M/s AAL has implemented this modification in 447 locos. Balance to be expedited by AAL. PDC: 30.08.2025
ii)	PSAD card/SMPS card	Replacement of DC-DC converter module of PSAD & PS cards which have completed service life 12-year or more. SER- replaced 90 out of 103 & JHS : 13 out of 17 completed PDC:30 <sup>th</sup> Nov 2025
iii)	GDU & BCH GDU card	M/s AAL had completed this modification ie. changed surface mounting components of the GDU card. As railways are reporting failures of GDU cards, M/s AAL should submit RCA and action plan by 15.06.2025

iv)	DCCT/CHCT/DCPT	<ol style="list-style-type: none"> <li>1. Replacement of ABB make sensors which have completed more than 12 years. M/s AAL will continue to conduct linearity test of rest sensors during schedule maintenance to prevent/ minimize the failures.</li> <li>2. However, M/s AAL will send the defective current sensor to OEM (M/s ABB) for detail investigation.</li> </ol> <p>RCA and action plan will be shared with RDSO after getting the report from OEM.</p> <p>TCD: 15.06.2025</p>
v)	Snubber Capacitor 65 mfd	Started one-cycle checking of snubber capacitance value (65mfd $\pm$ 10%) in the IC schedule if value deterioration more than 10% found, snubber capacitors will be replaced.
vi)	Blower fan bearing: 6205-2Z, SKF make	<ol style="list-style-type: none"> <li>i) Replacement of bearing in every 2 years.</li> <li>ii) M/s AAL shall review the existing guidelines of fan replacement and follow the replacement periodicity as 12 years.</li> </ol>
vii)	Observations of Railways	<ol style="list-style-type: none"> <li>1. All sheds informed about non-availability of Shock pulse Meter (SPM) &amp; Air flow meter. M/s AAL shall visit ELS/ANGL &amp; Bokaro to witness the efficacy of SPM &amp; air flow meter.</li> <li>2. Varnish &amp; baking of cooling fan motor shall be followed in line with auxiliary motors. Firm shall inform cut-in date.</li> <li>3. DSL/Raipur informed that AAL make SIV recently display hanging &amp; SIV Internal fault due to MCU card defective. M/s AAL shall examine these issues and submit their compliance.</li> </ol>
viii)	Contact details of M/s AAL	<ol style="list-style-type: none"> <li>1. Sh. Ram Kishor, DGM/Service Support, Mob. 9313447508</li> <li>2. Sh. Deepak Parashar/Dy. Manager-Customer Support mob. 9711199283</li> </ol>
2	<b>HIRECT 180 KVA SIV</b>	<b>Total Population: 250,</b> <b>Under AMC: 206, Out of AMC:44</b> <b>Reliability Action Plan</b>
i)	Battery Charger GDU card Observed pulse transformer resistance deteriorated in TT-1726 cards	Measuring of resistance of pulse transformer between G and K terminal of card and if value found low, card is being replaced Standard Value is 0.5 $\Omega$ .
ii)	Cooling fan	<ol style="list-style-type: none"> <li>1. Replacement of cooling fan MCB in every IOH. As a precautionary measure, one cycle replacement of MCB in all SIVs</li> <li>2. Replacement of bearing in every 3 years</li> <li>3. Replacement of cooling fan with 10 or more years in service</li> </ol>

		PDC:31.08.2025
iii)	Control Cards	M/s Transtechnic, Germany , OEM of Controller cards is no more supporting. M/s Hind rectifier has developed these control cards and put in service in one loco each at ELS/Kajipet& ELS/BSL, performance is reported to be working normal. Firm has to start replacement of control cards with service life of 12 years or more in all, in-service SIVs. PDC: 31.08.2025
iv)	GDU card inv section We have observed pulse transformer resistance deteriorated in TT-1669 cards	Checking of the resistance of pulse transformer between G and K terminal of card and if value found low, card will be replaced. Standard Value is 0.5Ω.
v)	Filter Capacitors Capacitor values get deteriorated due to high voltage surges seen by the capacitor from the output side, also due to aging factor and operating temperatures.	1. Check the values of capacitors during schedule work, if found less than 10% of rated value, capacitor is being replaced The Standard value for Filter Capacitor is 100μF. Accepted value - More than 90μF.  2. One cycle replacement of Filter capacitor in all in-service SIVs PDC: 31.08.2025
vi)	Thyristor Thyristors failed due to high voltage surges seen from input side by Thyristor. Also input fuse got blown.	1. Check healthiness of snubber capacitors and Snubber resistors during schedule. If value is found deteriorated by 10% then the same will be replaced. The Standard value for Snubber Capacitor is 0.47μF. Accepted value - More than 0.42μF The Standard value for Snubber Resistor is 33Ω. Accepted value - More than 29 Ω 2. One cycle replacement of snubber capacitor in all in-service SIVs PDC:31.08.2025
vii)	Control card 3 V back up battery	This is not being replaced as per OEM periodicity of 4 years. One cycle replacement shall be done in all in-service SIVs. PDC: 31.08.2025
viii)	<b>2x130 KVA SIV of M/s HIRECT</b>	<b>Total Population: 56, Commissioned :19 Out of AMC/Warranty:6</b>
ix)	Failure issues reported by Railways	1. Gonda shed reported failure due to QCON timer setting disturbed resulting sometimes SIV not picking up and DJ tripped via QVSI-1 and DJ tripped via QVSI-2 getting logged in data. QCON timer adjusted 2. DSL/Raipur reported issue of SIV not picking up messages was logged several times. Display card CAN communication IC defective. Display card replaced. 3. DSL/Raipur also reported that 2x130 kVA SIV units of M/s Hind are experiencing frequent failures and operational issues, causing

		<p>repeated disruptions and increased line failure.</p> <ol style="list-style-type: none"> <li>4. ELS/BSL reported SIV -2 isolate on line, Faulty lamp glowing reset then normal. SIV -1 isolate on line, Faulty lamp glowing, BA OFF ON then normal. Defective re-set lamp replaced.</li> <li>5. ELS/BSL reported abnormal noise in the choke section. Choke replaced by m/s Hirect.</li> <li>6. ELS/BSL reported issue of sometimes QSIT raised message reported online. During testing, Earth Fault not coming. Interface card modified by using spare DI available on card to take CT connection directly on card. DSP software modified. M/s HIRECT shall examine these issues and submit their compliance.</li> </ol>
x)	Reliability Action Plan	<ol style="list-style-type: none"> <li>1. Interface card modified by using spare DI available on card to take CT connection directly on card. DSP software modified. Implemented in all locos</li> <li>2. RCA &amp; RAP of each individual case to be shared with the concerned shed &amp; RDSO PDC: 20.06.2025</li> <li>3. Complete failure analysis &amp; RAP for the repeated failures reported by Raipur &amp; Gonda shed shall be submitted to concerned railway &amp; RDSO by 20.06.2025.</li> </ol>
xi)	Contact details of M/s Hirect	Sh. Arun Mayekar, DGM/Service, Mob. 887964320
3	Siemens 180 KVA SIV	<p><b>Total Population: 905, Under AMC: 761, Under Warranty: 10, Out of AMC:134</b></p> <p>Reliability Action Plan</p>
i)	Battery Charger GDU card	M/s Siemens has been asked to submit RCA & RAP by 30.06.2025
ii)	Inverter module	Checking of capacitance 6400 mfd in schedule & replace the same if values deteriorated by more than 10%. RCA to be submitted by 15.06.2025
iii)	Main Control Card	M/s Siemens has been asked to submit RCA & RAP by 30.06.2025
iv)	Cooling fan	<ol style="list-style-type: none"> <li>1. Bearing replacement in every 3 years</li> <li>2. Replacement criteria of churning fan to be submitted by 15.06.2025</li> <li>3. Replacement criteria for complete cooling fan &amp; bearing housing to be submitted by 15.06.2025</li> </ol>
v)	Observations of Railways	<ol style="list-style-type: none"> <li>1. All railways informed that Fault data storage capacity shall be 60 days minimum for failure analysis. M/s Siemens shall examine the issue and submit reply by 15.06.2025.</li> <li>2. Gonda shed informed about the poor response. Firm is not replying to shed's issue</li> <li>3. All sheds informed about non-submission of RCA.</li> </ol>

		4. DLS/Raipur has informed that there is a noticeable rise in the failure rate of SIEMENS make SIVs. Immediate corrective and preventive action is required from the manufacturer to reduce these failures and ensure system reliability. M/s Siemens shall examine these issues and submit their compliance.
vi)	Siemens 2x130 KVA SIV	<b>Total Population: 36, Under AMC: 3, Under Warranty: 27, Out of AMC/Warranty:6</b>
vii)	Failure issues reported by Railways	<ol style="list-style-type: none"> <li>1. ELS/EDE reported frequent tripping due to overvoltage, DC link over voltages logged</li> <li>2. ELS/JHS reported that fault Logged data is for 20 days only while schedule visit of loco is 60 days. Fault logged data shall be available for 60 days min.</li> <li>3. ELS/KYN &amp; ELS/BSL reported that load not shifted from SIV1 to SIV2 in case of fault in SIV1. Phase Lock Loop error logged whenever QSIT drops.</li> </ol>
viii)	Reliability Action Plan	<ol style="list-style-type: none"> <li>1. Based on the discussions &amp; feedback from user railways and to resolve above issues, M/s Siemens has modified the software version as <b>Z5D2N0MA.006</b> and uploaded in one loco no. 27777 of ELS/ED &amp; loco no. 25046 at ELS/BSL.</li> <li>2. These Two locos with the modified software version is in service for more than 15 days and reported to be working normal.</li> <li>3. In view of the above, M/s Siemens is advised to upload the modified software version - <b>Z5D2N0MA.006</b> in all 2x130 KVA SIVs. Completed: 2 locos, pending 34 locos PDC: 30<sup>th</sup> Jun 25</li> </ol>
ix)	Contact details of M/s Siemens	<ol style="list-style-type: none"> <li>1. Sh. Manu Garg, Head/Customer Service Mob. 9918781888</li> <li>2. Sh. Hemant Sathe, Project Manager, Mob. 9819949420</li> </ol>
4	Medha 180 KVA SIV	<b>Total Population: 431, Under AMC: 399, Under Warranty: 7, Out of AMC:25</b>
		Reliability Action Plan
i)	Battery charger control card, Thyristor firing card(TAFC), VFC card, GDU card	<ol style="list-style-type: none"> <li>1. Card modification by changing the layout for electrolytic capacitor for better cooling. Modification is already implemented in SIVs supplied upto 2014.</li> <li>2. This modification is in progress and to be implemented in 107 SIVs supplied from 2014 to 2016. So, far 85 completed, 22 are to be done TDC 30.07.2025.</li> </ol>
ii)	DC link capacitor	Electrolytic capacitor to be replaced with

	4700 mfd, (22 milli farad )	Polypropylene(PP) type dry type capacitors. Firm has to confirm this modification. So far, firm has replaced 83 electrolytic capacitors with Polypropylene type capacitor against the failures.
iii)	<b>2x130 KVA SIV of Medha</b>	<b>Total Population: 86, Under AMC: 3, Under Warranty: 27, Out of AMC/Warranty:6</b>
iv)	Failure issues reported by Railways	<ol style="list-style-type: none"> <li>1. ELS/BZAE &amp; Raipur/DSL reported overheating of capacitor due to Terminal loose connection, capacitor got heated and failed</li> <li>2. ELS/VALSAD reported Date and Time of RTC was corrupting, reported issue in display &amp; load not shifting to SIV 2 in case MCB on front panel is tripped</li> </ol>
v)	Reliability Action Plan	<ol style="list-style-type: none"> <li>1. WIRING IMPROVEMENT IN SINE FILTER CAPACITOR TERMINATION: completed 34 locos, Pending 52 PDC by 31<sup>st</sup> July 25</li> <li>2. Software Modification for Improvement for display LED &amp; QCON Completed : 28, Pending 56, PDC: 31<sup>st</sup> July 25</li> </ol>
vi)	Contact details of M/s Medha	<ol style="list-style-type: none"> <li>1. Sh. V.K.L. Swamy, Asst manager, Mob. 9466007866</li> <li>2. Sh. Arun P, Engineer/R&amp;D, Mob. 9441436234</li> </ol>
<b>5</b>	<b>ABB 180 KVA</b>	<b>Population- 87, Under AMC-38 , Out of AMC:49</b>
i)	Cooling fan	<ol style="list-style-type: none"> <li>1. Churning fans to be replaced in POH as per RDSO's TC/123.</li> <li>2. Replacement criteria for complete cooling fan to be submitted by 15.06.2025</li> <li>3. Bearing replacement periodicity shall be submitted by 15.06.2025</li> </ol>
ii)	Cards	<ol style="list-style-type: none"> <li>1. Filter capacitor checking parameters to be defined &amp; shall be introduced by 15.06.2025</li> <li>2. RCA &amp; RAP for failure of gate drive card to be submitted by 15.06.2025</li> <li>3. RCA &amp; RAP for failure of PEC card to be submitted by 15.06.2025</li> </ol>
iii)	Observations of Railways	<ol style="list-style-type: none"> <li>1. ELS/JHS informed that RCA not shared, UES not maintained and poor response</li> <li>2. Kharagpur &amp; DLS/IZN informed that there is no UES.</li> <li>3. DLS/Raipur informed that ABB make SIV recently cases of blower fan base plate Crack noticed. Alsoinformed about firm's poor response. M/s ABB shall examine these issues and submit their compliance.</li> </ol>
iv)	Contact details of M/s ABB	<ol style="list-style-type: none"> <li>1. Contact details: Sh. Mohit Sharma, 8595653969</li> <li>2. M/s ABB has confirmed that UES issue will be</li> </ol>

		resolved within one month
--	--	---------------------------

This issues with approval of competent authority

Encl: As above

(Rajesh Kumar)  
Director Std. Electrical(Pn.)



## Annexure-I

ALL MANUFACTURER FAILURE DATA 2024-25															
Manufacturer	AAL			ABB			Medha			Hind			Siemens		
Railways	Total Failure	Population	FRPCPY	Total Failure	Population	FRPCPY	Total Failure	Population	FRPCPY	Total Failure	Population	PRPCPY	Total Failure	Population	FRPCPY
CR	24	62	38.71	0	0	#DIV/0!	11	41	26.83	1	6	16.67	20	73	27.4
ECoR	28	85	32.94	1	11	9.09	6	27	22.22	5	18	27.78	4	49	8.16
ECR	18	49	36.73	2	10	20	10	48	20.83	8	15	53.33	10	74	13.51
ER	9	15	60	1	1	100	7	17	41.18	1	5	20	5	44	11.36
NCR	11	22	50	6	14	42.86	7	27	25.93	12	26	46.15	18	54	33.33
NER	9	16	56.25	5	4	125	3	17	17.65	8	17	47.06	14	64	21.88
NR	7	12	58.33	0		#DIV/0!	3	7	42.86	0		#DIV/0!	0		#DIV/0!
NWR	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!
SCR	43	130	33.08	1	10	10	16	89	17.98	8	32	25	10	79	11.39
SECR	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	10	50	20
SER	35	103	33.98	14	10	140	4	68	5.88	20	47	42.55	11	73	15.07
SR	27	54	50	0	2	0	9	37	24.32	9	27	33.33	13	152	8.55
WCR	25	43	58.14	0	2	0	4	18	22.22	7	10	70	5	46	10.87
WR	7	16	43.75	2	3	66.67	4	17	23.53	14	16	87.5	10	52	19.23
Grand Total	243	607	40.03	32	67	47.76	84	413	20.34	93	219	42.47	130	810	15.93

## Attendance Sheet

Annexure - II

## Performance Review Meeting of SIV on 29.05.2025 at RDSO

SL NO	NAME	DESIGNATION	Zone & Shed/Firm	Office	MOBILE NO	Email ID	SIGNATURE
1.	वृन्हाडर संभाषी	JG	NCR & ELS JHS	ELS JHS	7307276914	vrndeyan2016@gmail.com	
2.	Shailendra Maurya	SSE	WR, ELS/UTA	ELS/UTA	9374638701	sm.shailendra.1973@gmail.com	
3.	Kumar Babbar	JE	JE/TRS/DDU	ELS/DDU	9794848422	clsmgs@gmail.com	
4.	Mahesh A. Katre	SSE	ELS/BSL/CP	SE. DEE/HS /BSL	9404374031	Katamahesh661@gmail.com	
5.	Pradeep K. Dade	SSE	ELS/BNDL/SER	SE. DEE/HS BNDL	9777582395	PradeepK2013@gmail.com	
6.	NISHANT NARIN	SSE	SER/ELS/IPTN	Sr. DME/HS IPTN	7766914756	nishantnarin4@gmail.com	
7.	Puneet Panwar	Sr. Engr. CS	M/s Siemens Ltd	Lko	6350529728	Puneet.panwar@Siemens.com	
8.	Mann Garg	Head - CS	M/s Siemens	Delhi	9918701008	mann.garg@Siemens.com	
9.	Hemant Sathre	Project Mgr.	M/s Siemens	Mumbai	9819949420	hemant.sathre@Siemens.com	
10.	Arun Mayekar	DGM	Hind Rectifiers Ltd	Mumbai	8879646320	arunmayekar@hindrect.com	
11.	P. S. PATEL	DGM	Hind Rectifiers	Lucknow	9999706378	patel@hindrect.com	
12.	Mohit Sharma	Service Manager	ABB India Ltd	Delhi	9686841604	mohit.sharma@in.abb.com	
13.	DEEPAK PARASHAR	Service Manager	HAL Noida	Noida	9111999803	d.csnequ@gmail.com	
14.	Sarvesh Trivedi	Sr. Engr. UOIR					
15.	Shishu Shankhola	Tech	IZN	IZN	8430480478	shishu.0945@gov.in	
16.	Ashish Kumar Dwivedi	SSE	IZN Shed	IZN Shed	9780541480	ashishkdwivedi@ptt@gmail.com	
17.	RAVI KUMAR	SSE	DDUX/ECR	DDU Direct shed	8756339084	ravikumar2013@gmail.com	



## 3924944/2025/O/o PED/TRACTION/RDSO

18.	MD. ZEESHAN	SSE/SRE	ELS/TRS/SRE/SER	SRCE	8016081341	ZEE12344@GAIL.COM Ermdzeeshan.sre@gmail.com	for
19.	S.R. Sahu	SSE/ANGL	ELS/ANGL	ANGRE	8455887379	ssmail.111@gmail.com	SL
20.	Binod Kumar	DEE/DLS/R	DLS/R/SECR	DLS/R	9752440904	deedlssaiipu@gmail.com	SL
21.	Abhijeet KUMARASHIN	DEE/TRS/ELN	ELECTRIC Loc. <sup>10/12/2024</sup>	IPTE	9771483401	abhijeetkum54@gmail.com	20/5/25
22.	ABHISHEK SHREERAM	ADRE/TRS/KGPE	ELS/KGPE	KGPE	9002081464	abhishhek.1703@gmail.com	20/01/25
23.	Ch. Ravi Kumar	DEE/DLS/ED	SR; ED <sup>10/12/2024</sup>	EDDX.	9603956427	chervu.ravikumar@gmail.com	20/5/25
24.	Amol Jaiswal	PEE/ELS/GD	NER, LTN, GD	GDDX	9794842415	amol.jaiswal@gmail.in	20/5/25
25.	Aryam Dwivedi	JE/ET/GD	NER, LTN, GD	GDDX	9794842445	aryandwivedi223@gmail.com	20/5/25
26.	Dhan Singh Meena	Sr. Tech.	ELS/ASS/SR	GDDX	8056325960	dhan Singh sr@gmail.com	20/5/25
27.	Kumud Kumar	SSE/DLS/KTE	DLS/KTE/GCR	WCR	7489932940	kbyres87@gmail.com	20/5/25
28.	Emanson Teli	SSE/RDSO	RDSO/LKO	RDSO	9794862736	Emanson.teli@gmail.com	20/5/25
29.	J.K. Saxena	SSE/jmp/ELT	RDSO/LKO	RDSO	8765829088	jksaxena.2013@gmail.com	20/5/25
30.	Vinod Kumar Yadav	SSE/D/ELT	RDSO/LKO	RDSO	9794863139	VK Yadav. elc@gmail.com	20/5/25
31.	V.K. Gupta	SSE/D/EL	RDSO/LKO	RDSO	9794862739	vkgupta.elc@gmail.com	20/5/25
32.	Rajesh Kumar	Dir/Pn	RDSO LKO	RDSO	9794863255	dirph.locob@gmail.com	20/5/25
33.	V.K.L. Swamy	Asst. Manager	RDSO Medha	Hyd	9666007866	swamy.vk@medha.com	20/5/25
34.	P. Anuraj	Engineer	RDSO Medha	Hyd	9441436234	Anurajp@medha.com	20/5/25
35.	Navneet Kumar	Asst. Executive	RDSO Medha	Hyd	9670270002	navneetkumar@medha.com	20/5/25
36.	Sachinjayant Iyer	MISITG - Engr	MEDHA	BYD	9396189448	Sachinjayant.ier@medha.com	20/5/25



3924944/2025/O/o PED/TRACTION/RDSO

37.	M. Satyanarayana	Dy. Manager (C.Y)	MEDHA	MEDHA	9985311304	Satyanarayana emida	<del>Kan</del>
38.							
39.							
40.							
41.							
42.							