

ආචාර්ය ACKNOWLEDGEMENT

The work study team is thankful to the Sr.DEE, DEE, ADEE-I, ADEE-II, SSEs, all other shop Supervisors and staff of Electrical Loco Shed, Vijayawada for their assistance and guidance, extended to the work study team during the conduct of this study.

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The Work Study department has applied the following techniques for completion of the Work Study.

1. Collection of the details of workload particulars.
2. Interaction with Staff and Officers on the Division
3. Observation of the pattern of working.
4. Critical examination of the existing system of working and
5. Assessment of manpower requirement for existing workload.

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SYNOPSIS

- **SUBJECT: Review of Staff Strength of Electric Loco Shed/ Vijayawada / Vijayawada Division.**
- **AUTHORITY: Annual programme of Work Studies 2018-19.**
- **STUDY No: WSSCR-40/2018-19.**
- **REFERENCE File No: G.276/2/WSSCR-40/2018-19.**
- **AREA OF ACTIVITY: Electric Loco Shed/BZA/BZA Division.**
- **Application of Benchmarking Norms:** Benchmarking is based on dynamic and comparative analysis and thus is a very useful tool to manage efficient deployment of staff and monitor effects of improvement in working practices, use of new technologies and level of outsourcing. Railway Board in successive meetings has directed all units to achieve average of Indian Railway Benchmark. Keeping optimum utilization in view, Efficiency directorate/ Railway Board has collected detailed data of various activities of Indian Railways has done extensive exercise and arrived two Benchmarks i.e. IR Average Benchmark and IR Benchmark.
- In view of adoption of benchmarking on Railways, Railway Board advised to adopt first Indian Railway Average Benchmarking and further Indian Railway Benchmarking.
- Due to modernization, certain activities become redundant and some of the maintenance work contracted out. Due to this, the stress of workload comes down. To ensure the optimum utilization of manpower, to bring down the staff cost and for achieving the productivity of manpower, the work-study cell reviewed the staff strength as per IR average for requirement of manpower for Electrical loco Shed activities and other miscellaneous activities in order to bring nearer to Indian Railway Benchmarking.
- **SAVE position of ELS /BZA as on 30.11.2018 is as follows:**

	San	Act	Vac
Combined Grand Total (ELS+ TRS/OP& incl. other staff)	923	641	282

- **Holding of locos:**

S.No	Rolling Stock	Number of locos
1.	WAP 4 – Passenger locos	43
2.	WAG 5 (Passenger locos)	10
3.	WAG 5 (Goods locos)	33
4.	Wag 7 – Goods locos	142
Total		0

Passenger locos = 53
Goods locos = 175

- Staff strength in Electrical loco Sheds (Locos maintenance) has been reviewed on the following basis
 - Practical observation and identifying of redundant category posts, taking into account of Outsourcing of some of the activities.
 - AGM D O letter no. SCR/P-HQ/MPP/156/Rightsizing/VIII dated 23.01.2017 AGM/SCR advised all DRMs to initiate action to surrender vacant/redundant ancillary posts.
- Work study team identified the following posts as surplus / redundant with the following reasons.
 - As there are 3 fork lifters available and 5 sanctioned posts of fork lift operators are available. The operation of fork lifter is carried out in general shift (day) only. To operate 3 fork lifters 4 staff are required (3- to operate 3 fork lifters and 1- rest giver). Hence one post of fork lifter is became surplus.
 - As the activity of sand drying operation and filling in the locomotives is outsourced, hence the post of sand drying operator is became redundant.
 - As the some of activities like painting, welding, bogie frame works, IOH and cleaning of locomotives are outsourced, hence the resultant 5 posts of khalasi are became surplus.
- Work study team identified the following surplus / redundant posts to be surrendered from Book of Sanctions of ELS/BZA.

S No	Designation	No.of posts	Remarks
1	Technician (Fork/Jumbo)	1	Became redundant due to the activity is carried out by mini cranes.
2	Technician (sand drying operator)	1	Redundant since the activity is outsourced.
3	Khalasi helper	5	Became redundant due to Some of the activities like welding, painting and cleaning are outsourced
4	Peon	1	Redundant vacant post
	Total	0	

In view of the above and in order to bring the organization nearer to the I R average benchmarking, the following recommendation is made.

- Recommendation:

It is recommended to surrender 8 surplus / redundant Posts from book of sanctions from ELS/BZA

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1.0 ÍßçðÃððãððÐðð INTRODUCTION:

- 1.1 Indian Railways holds the status of being a premier transport service provider to the Nation. It is entrusted with the responsibility of carrying the bulk of freight and passenger traffic across the length and breadth of the country, serving national interests with a social centric objective in spite of the demanding task of remaining financially viable. The organization has been successful in lending impetus to the Nation's economic and industrial progress on the strength of the sustained approach towards technology up-gradation of infrastructure.
- 1.2 Continuous updating and designing of job description, reduction in number of categories for job enrichment through multi-skilling /qualification and responsibilities are the need of the day. Review of the work methods and sequences regularly, so as to create group for execution of job whenever new technologies are introduced.
- 1.3 Manpower is the biggest component of the expenditure of Indian Railway; rightsizing of manpower to reduce unit cost is an effective way to increase efficiency of Indian Railways. With this end in view, the Indian Railways has embarked on outsourcing various non-core activities and the staff hitherto engaged in such activities are being redeployed in areas concerned with operational & safety aspects. With the outsourcing of non-core activities, the staffs are placed in better places where their services are beneficially & effectively utilized, instead of keeping them in non-core activities, especially when such services are available in the open market at affordable rates.
- 1.4 Keeping the above said objectives in view, Planning Cell has desired to review the working of various Sheds in the South Central Railway and accordingly the Planning Organization has conducted work-study on **REVIEW OF STAFF STRENGTH OF ELECTRIC LOCO SHED AT VIJAYAWADA.**

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2.1 ಇರೋಟೋ ಡಿಫಿಂಟ್ ಇರೋಟೋ ಇರೋಟೋ EXISTING SCENARIO:

2.2 Electric loco shed /BZA was inaugurated on 12.04.1981 by Shri. M Mallikarjun (MOSR). Holding of 100 locos reached in 1985 and at present ELS/BZA is holding 228 locos.

2.3 Apart from the Home Railway, the shed is catering to the needs of Exp/Mail services for other railways also.

2.4 SAVE position of Electric Loco Shed/BZA as on 30.11.2018:

S. No	Category		Scale of pay		ELS/BZA			TRS/OP		
					San	Act	Vac	San	Act	Vac
1	SUPERVISORY									
	SSE	9300-34800+4600	50	36	14	8	7	1		
	JE	9300-34800+4200	27	19	8	2	1	1		
	Total		0	0	0	0	0	0	0	0
2	ARTISAN-Skilled									
	Sr. Technician	9300-34800+4200	126	117	9	15	15	0		
	Technician - I	5200-20200+2800	251	120	131	24	19	5		
	Technician -II	5200-20200+2400	39	16	23	4	1	3		
	Technician -III	5200-20200+1900	226	150	76	21	8	13		
3	Total		0	0	0	0	0	0	0	0
	ARTISAN-Un Skilled									
	Khalasi Helper	5200-20200+1800	84	98	-14	7	2	5		
	Total		84	98	-14	7	2	5		
7	Miscellaneous									
	CMS	9300-34800+4600	2	2	0	0	0	0		
	CMA	9300-34800+4200	1	1	0	0	0	0		
	Points man	5200-20200+1800	4	0	4	0	0	0		
	Ch.O.Supt.	9300-34800+4600	5	3	2	0	0	0		
	O.S	9300-34800+4200	12	11	1	0	0	0		
	Sr.Clerk	5200-20200+2800	1	2	-1	0	0	0		
	SSE (Drawing)	9300-34800+4600	4	3	1	0	0	0		
	JE (Drawing)	9300-34800+4200	2	2	0	0	0	0		
	Sr.Steno	9300-34800+4600	1	0	1	0	0	0		
	Jr.Steno	5200-20200+2400	0	1	-1	0	0	0		
\	B/Peon	5200-20200+1800	1	0	1	0	0	0		
	Group-D	5200-20200+1800	6	7	-1	0	0	0		
	Total		0	0	0	0	0	0	0	0
	Grand Total (Direct& Indirect)		842	588	254	81	53	28		
	Combined Grand Total (ELS+ TRS/OP& incl. other staff)		San: 923			Act: 641		Vac: 282		

2.5 Loco holding of ELS /BZA:

S.No	Rolling Stock	Number of locos
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2.6 Activities carried out at different sections:

Name of the section	Activity
E1 and PPO	Log book verification, loco history and schedule history will be verified
E3	Traction motors, smoothening reactors over hauling (IOH and AOH), schedule activities of IA, IB, IC
E5	Line contactors, shunting contactors, DBR, reversers, CTFs over hauling and schedule activities
M5	Pn. Section equipments over hauling and schedules
E4	Transformer, GR, SMGR, CGR contactors over hauling and schedules.
E7	Micro processors, static inverters, Head Light, CHBA, Flasher Light all mechanical and electrical relays, VCDs, DJ over hauling and schedules.
M3	Aux. motors over hauling and schedules.
E6	All cables checking, RSI blocks, BL boxes, AOH, IOH schedules and co coordinating for heavy schedules.
M4	Machine shop, Turning works, fabrication works, Wheel turning works, electrical substation LT side, gardens, shed cleaning, vehicles, all machine cranes, wheel lathe fitting e.t.c.
M2	Body section- repairs, body painting, over hauling and schedules
CMS lab	Material and oil inspection

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3.0 Critical Analysis

- 3.1 Manpower is the biggest component of the expenditure of Indian Railway; rightsizing of manpower to reduce unit cost is an effective way to increase efficiency of Indian Railways. With this end in view, the Indian Railways has embarked on outsourcing various non-core activities and the staff hitherto engaged in such activities are being redeployed in areas concerned with operational & safety aspects. With the outsourcing of non-core activities, the staffs are placed in better places where their services are beneficially & effectively utilized, instead of keeping them in non-core activities, especially when such services are available in the open market at affordable rates.
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- 3.5 Periodicity of schedule attention of locos in the BZA shed.
- 3.5.1 **Passenger Locos:**

S.NO	Type of Schedule	Periodicity
1	IA	45days
2	IB	90days
3	IC1	135 days
4	IA	180 days
5	IB	225 days
6	IC2	270days
7	IA	315 days
8	IB	360 days
9	IC3	405 days
10	IA	450 days
11	IB	495 days
12	AOH	540 days (1 ½ year)
13	IOH	3 years
14	AOH	4 ½ years
15	POH	6 years (at nominated workshops)

3.5.2 Goods Locos :

S.NO	Type of Schedule	Periodicity
1	IA	60days
2	IB	120 days
3	IC1	180 days

4	IA	240 days
5	IB	300 days
6	IC2	360 days
7	IA	420 days
8	IB	480 days
9	IC3	540 days
10	IA	600 days
11	IB	660days
12	TOH	720 days (2 years)
13	TOH	4 years
14	IOH	6 years
15	TOH	8 years
16	POH	10 years (at nominated workshops)

3.6 The following activities are outsourced at Electric Loco Shed/BZA.

S. No	Contract	Agreement Value	Date of commencement	Time of completion
1	AMC for ADOR Fontech make DC inverter welding plants	597177	29.12.2016	2 years
2	Intensive cleaning of Shed premises and maintenance of garden and garbage disposal	3822168	01.01.2017	2 years
3	PU painting for Locomotives	4581428	22.05.2017	2 years
4	IOH for Bogie frames of WAP4 locos	5479988	09.12.2017	2 years
5	IOH for WAG 7 and WAG 5 Bogie frames	13598419	22.02.2018	2 years
6	Hiring of 6 tonne truck for transportation of railway material	5893451	08.03.2018	2 years
7	Welding of Bogie cracks, Bogie liners and other welding activities at ELS/BZA	5740755	14.05.2018	2 years
8	Operation and maintenance of effluent treatment plant at ELS/BZA	362340	23.05.2018	2 years
9	Hiring of multi utility road vehicles Non-AC	1088640	27.06.2018	2 years
10	Outsourcing of staff canteen	1343153	01.04.2017	2 years

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3.11 Recommendation:

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Sl. No	Category	Scale		No. of posts	Mean Pay	DA 9%	Emoluments P.M (in Rs.)	Total Emoluments P.A (in Rs.)
		From	To					
1	Group 'D'	18000	56900	8	37450	3371	326568	3918816
TOTAL				8	Rs. 39,18,816			

- On implementing the recommendations, the financial savings would be to the **Rupees 39.18 lakhs per annum.**

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5.0 òçđŎîđòŮăđ Recommendation

S No.	Recommendation	Para No.
1	It is recommended to surrender 8 surplus / redundant Posts from book of sanctions from ELS/BZA	3.11

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