

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, Lallaguda 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/ Lallaguda / Secunderabad Division.**
- **AUTHORITY: Annual programme of Work Studies 2018-19.**
- **STUDY No: WSSCR-41/2018-19.**
- **REFERENCE File No: G.276/2/WSSCR-41/2018-19.**
- **AREA OF ACTIVITY: Electric Loco Shed/LGD/SC 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.
- Summary of SAVE position of ELS /LGD is as follows:

ELS /LGD	San	Act	Vac
Grand Total	691	629	62

- Holding of locos:

S.No	Rolling Stock	Number of locos
1.	WAP 7– Passenger locos	98
2.	WAP 4– Passenger locos	25
3.	WAG 9 (Goods locos)	71
4.	WAG 9H (Goods locos)	41
Total		235

Passenger locos = 123
Goods locos = 112
Total = 235

- 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 surplus / redundant posts to be surrendered from Book of Sanctions of ELS/SC.

S No	Designation	No.of posts	Remarks
1	Peon	6	Redundant vacant post
	Total	6	

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 6 surplus / redundant Posts of Peons from book of sanctions of ELS/LGD**

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1.0 ಇರೋಟೋ ಇಂಟ್ರೂಡಕ್ಷನ್:

- 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 Lallaguda.**

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2.0 **ஆதாரம் உள்ள சூழல்** EXISTING SCENARIO:

- 2.1 Electric Loco shed Lallaguda was constructed as a part of Vijayawada – Balharshah Railway Electrification project at a cost of Rs. 25 crore including the Machinery & Plant with a designed homing capacity of 100 Locos. The shed was inaugurated on 06.09.1995. The shed has started with initial holding of 72 Locomotives comprising of WAM4 & WAG5 for hauling Passenger and Goods Trains. Subsequently higher Horse Power Express locos of WAP4 class were inducted at the end of year 1995. The state of Art technology Three phase locos are inducted in May 2007.
- 2.2 Apart from the Home Railway, the shed is catering to the needs of Exp/Mail services for other railways also.
- 2.3 At present the shed has a total holding of 235 Locomotives including 123 coaching locos.
- 2.4 ELS/LGD carries out Minor maintenance schedule (IA/IB/IC/IT) and Major Maintenance Schedules (AOH/MOH/IOH) as well as unscheduled repairs of locos. POH of Locos is carried out at Bhusawal, Perambur, Kancharapara & Dahood Loco workshops.
- 2.5 **SAVE position of ELS/LGD:**

S.N	CATEGORY	SANCTION	ON ROLL	VACANCY
1	SSE	42	44	-2
2	JE	21	19	2
3	App.JE /SE	0	0	0
	Supervisors Total	63	63	0
4	Sr.Tech	85	47	38
5	Tech-I	197	185	12
6	Tech-II	29	50	-21
7	Tech-III	212	100	112
8	App. Fitter	0	17	-17
	Artisans Total	523	399	124
9	KHP	74	20	54
10	KH	14	130	-116
11	Sub KH	0	0	0
	Group D Total	88	150	-62
1	ChOS	2	2	0
2	OS	6	5	1
3	Sr.Clerk	1	0	1
5	Jr.Clerk	0	2	-2
6	SSE(Drg)	2	1	1
7	JE(Drg)	3	3	0
8	CMS - I	2	1	1
9	CMA	1	2	-1
10	Steno Gr-I	0	1	-1
	Ministerial staff Total	17	17	0
	Grand Total	691	629	62

2.6 **Holding of locos of ELS/LGD**

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1	WAP 7- Passenger locos	98
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2.7 Activities carried out at different sections:

E1/PPO	:	Progress Planning Organization
E2	:	3 phase loco propulsion equipment (Traction converter, Auxiliary converter, Control electronics), SIV, MPCS
E2BA	:	Batteries maintenance
E3AUX	:	Auxiliary machines Inspection, Repair and overhauling
E3TM	:	Traction Motor & SL's Inspection, Repair and overhauling
E4	:	Relays, SPM, Meters, VCB, EP/EM Contactors, CTF & Reversers , Driver display, Angle Transmitter Inspection, Repair and overhauling
E5	:	Transformer, Tap Changer & SMGR's Inspection, Sensors, radiators, Repair and overhauling
E6	:	Roof equipment, Cables HL,FL, Electrical equipment changing
M1	:	Mechanical Inspection and running repairs of Bogies
M2	:	Body , CBC, Cattle guard Inspection, Repair and overhauling
M3&M5	:	Pneumatic equipment & pipeline, Brake system and Pantograph Inspection, Repair and overhauling
M6	:	Mechanical overhauling and major repairs of Bogies

MW & M4	:	Mill Wright & machine shop: maintenance of machinery and plants & wheel turning
Tool room	:	Maintenance and calibration of Tools /instruments
Lab	:	Testing of materials& equipments to establish quality, condition monitoring tests DPT/MPT,DGA of oils, Grease sample test for metal content, Ultrasonic test of Axles
NS Stores	:	Stocking and issue of material & disposal of scrap
General	:	Cleaning and painting of the locomotives. General upkeep of the shop floor.
MMS	:	Indenting and procurement of stock and non stock material
Drawing	:	Specifications/Drawings , Outsourcing and contract works.
Technical & Investigation	:	Reliability action plan / Modifications/Developments Failures investigations & Analysis
Office	:	Establishments/ Budget
ISO	:	ISO implementation /Skill development Training

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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.

3.2 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.

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3.5 Periodicity of schedule attention of locos in the LGD 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

Holding of locos:

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3.8

Work study team identified the following posts as surplus / redundant with the following reasons.

3.9

Work study team identified the following surplus / redundant posts to be surrendered from Book of Sanctions of ELS/LGD.

S No	Designation	No.of posts	Remarks
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CHAPTER –IV

4.0 FINANCIAL IMPLICATIONS:

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	6	37450	3370.5	244923	2939076
TOTAL				6	Rs. 29,39,076			

- On implementing the recommendations, the financial savings would be to the **Rupees 29.39 lakhs per annum.**

5.0 Recommendation

S No.	Recommendation	Para No.
1	It is recommended to surrender 6 surplus / redundant posts of Peons from book of sanctions from ELS/LGD	3.10

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