

SOUTH WESTERN RAILWAY



Work Study Report

On

**“Review of Staff Strength of SSE/WORKS units in Engineering
Department of MYS Division”**

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The Work-Study team is also thankful to all the supervisory staff for their co-operation in carrying out the Work-Study effectively.

SYNOPSIS

A Work-Study on “Review of staff strength of SSE/JE’s Works of MYS division was conducted based on the Railway Board’s Bench Marking report of May -2019.

SSE/JE’s Works units under take maintenance and repairs works through departmental staff and Zonal contract. Details of Sanctioned Staff strength were collected from Sr.DPO/O/MYS, actual men on roll and ITKM from the respective units of SSE/JE’s works of MYS division. The present sanctioned staff strength available in SSE/JE’s Works/MYS division is **249** as per Book of sanctions of 01/04/2017, against **147** men on Rolls. The existing ITKMs of SSE/JE’s Works units of MYS division are **364.05 ITKMs** of plinth area of residential and service building. The work study team analysed existing work load, employees employed, critical examination of existing practices and methodology.

The data collected was evaluated as per Indian Railway Benchmarking, current IR average and general principles of work-study. After critical examination with the existing ITKMs of 364.05, work study team opines that the requirement of staff under SSE/JE’s Works in MYS division is **165** duly applying Railway Board Benchmarking report of May - 2019 i.e. **0.40 men** per ITKM of plinth area if less than 750 ITKM).

Hence **249 - 165 = 84** posts are found surplus to the requirement in the units of SSE/JE’s Works over MYS division.

Railway Board letter dated; 15.03.2017 of Para 6 stating that more non-core activities, which are not directly related with train operations and safety can be outsourced.

Optimisation of manpower results in improvement of work culture, and increase productivity.

TERMS OF REFERENCE

As per the instructions of AGM/SWR, a study for “Review of staff strength of SSE/JE’s Works Engineering department of MYS division has been carried out.

METHODOLOGY

- Collection of data from site.
- Discussions with field officials and staff.
- Benchmarking / Critical Analysis.

SUMMARY OF RECOMMENDATIONS

The work–study team collected the details of sanctioned staff strength from office of Sr.DPO/MYS, men on Roll and ITKMs from the respective units of SSE/JE's of MYS division. The work study team critically analyzed the requirement of staff based on the data collected duly applying Indian Railway Benchmark & current IR average of MAY -2019 and general principal of work study.

Present Sanctioned staff strength as per BOS of 01/04/2017 and actual as per the data submitted by the respective units of SSE/JE's works of MYS division is enclosed as **Annexure-I**.

Men on Roll collected from the respective units of SSE/JE's works of MYS division are as below: (enclosed as **Annexure-II**).

SI No	CATEGORY	S	A	V	E
01.	MASON	27	06	21	Nil
02.	CARPENTER	23	08	15	Nil
03.	PAINTER	11	05	06	Nil
04.	FITTER/PLUMBER	12	11	01	Nil
05.	BLACK SMITH	03	0	03	Nil
06.	CARETAKER	04	02	02	Nil
07.	CHOWKIDAR	08	04	04	Nil
08.	LASCAR	08	04	04	Nil
09.	REST HOUSE WATCHMAN	03	01	02	Nil
10.	SANITARY KHALASI	03	02	01	Nil
11.	VALVE MEN	07	01	06	Nil
12.	GARDEN KHALASI	06	05	01	Nil
13.	KHALASI	134	98	36	Nil
	TOTAL	249	147	102	Nil

Section wise ITKMs details submitted by the respective units of SSE/JE's works of MYS division are enclosed as **Annexure -III**.

Benchmarking is the continuous process of comparing different units and identifying the employees with maximum output. The requirement of staff strength is achieved duly applying IR average of Benchmarking report vide Railway Board letter No.2006/E&R/2800/Rly/Imp/Vol.V(Corr) dated: 31.03.09 to 27.11.09, man power planning is to be adopted based on current IR average,

Current IR average (**0.40 men** per ITKM of plinth area if less than 750 ITKM as per May -2019 report) in each division. Hence the requirement of staff in SSE/JE's Works is worked out based on the current IR average and benchmarking report of May -2019 issued by per Railway Board letter dated 27/6/2019 enclosed as **Annexure –IV**

Railway Board letter dated; 15.03.2017 of Para 6 stating that more non-core activities, which are not directly related with train operations and safety can be outsourced. enclosed as **Annexure –V**

The Work Study Team has analyzed the Manpower requirement based on the above guide lines and general principal of work study.

The total number of staff required as per IR average Norms is 0.40 Men per ITKM (Divisions less than 750 ITKM).

Sanctioned staff strength as per BOS 01/04/2017	Actual requirement of staff as per present IR average of May-2019 = 0.40 men per ITKM	No. of posts recommended for surrender which are found surplus to the requirement
249	Total ITKM = 364.05 $364.05 \times 0.40 = 146 \text{ men}$ LR @ 12.5% = 19 Total requirement = <u>165 men</u>	249 - 165 = 84 posts

Details of unit wise ITKM and total requirement of staff as per benchmarking report of May -2019

Sl. No	SSE units	1 ITKM = 1500 Sqm plinth area	Sanction staff strength as per BOS 1/4/2017.	Men On Roll	Men required as per Railway Board Bench marking report of MAY- 2019 i.e. 0.40 men per ITKM	12.5% LR	Total requirement of staff in SSE/JE's units of MYS division
1	SSE/W/MYS	136.11	85	55	55	6.9	61.9
2	SSE/W/AP	24.23	21	10	10	1.25	11.25
	SE/W/HAS	07.17	22	07	03	0.38	3.4
3	SSE/W/DVG&HRR	20.38	25	31	08	1.04	9
4	SSE/W/ASK	37.95	18	18	15	1.88	16.9
5	SSE/W/CTA&RRB	12.93	28	12	05	0.63	5.6
6	SSE /SKLR	20.78	33	02	08	1.04	9
7	SSE/W/KBPR	30.40	0	06	12	1.51	13.5
8	SSE/W/SMET	74.10	17	06	30	3.77	33.8
	TOTAL	364.05	249	147	146	18.4 say 19	164.35
							Say 165

During the discussion with Sr.DEN/Co-ord/MYS agreed for surrender the posts as recommended by the work study team, and it was also stated in the remarks furnished by Sr.DEN/Co-ord/MYS that the 74 posts are already surrendered.

CHAPTER – I

INTRODUCTION:-

Capital and labour are the basic factors of production for any organization. The role of these two factors is complimentary and not supplementary. While the capital provides for basic infrastructure, labour makes use of the same and contributes for production. The requisite production cannot be achieved in the absence of any of these two factors.

Human resources are the most indispensable asset of any organization. Effective utilization of this asset is the prime responsibility of the Management, especially for an organization like Indian Railways, The Engineering Department is one of the important department in Indian Railways and first largest department in terms of manpower employed.

The work force cost constitutes around 40% (excluding pension) of gross ordinary working expenses of Indian Railways. Human resource development and manpower planning are thus crucial for Indian Railways financial viability. Continuous updating and designing of job descriptions, reduction of number of categories for job enrichment through multi skilling, qualifications and responsibilities are need of the day.

Review of work methods and sequences regularly, so as to create groups for execution of job whenever new technologies are introduced. The controlling of the manpower and its best utility is the need of the hour in the organization. It is realized that output of every individual railway employee has to be substantially optimized to enable the railway system to work with requisite economy and achieve more productivity.

Keeping the reforms in view, there should be sweeping changes in the content and composition of manpower.

In view of the fore said objectives, AGM/SWR has advised the Work-Study cell to take up study on “Review of Staff Strength of SSE/JE’s Works units of Engineering department of MYS division.

CHAPTER - II

Existing Manpower:

Sanctioned Staff strength of SSE/JE's works of MYS division as per BOS of 01/04/2017 and actual as per data collected from the respective units of SSE/JE's of MYS Division is shown below:-

Sl No	CATEGORY	S	A	V
01.	MASON	27	06	21
02.	CARPENTER	23	08	15
03.	PAINTER	11	05	06
04.	FITTER/PLUMBER	12	11	01
05.	BLACK SMITH	03	0	03
06.	CARETAKER	04	02	02
07.	CHOWKIDAR	08	04	04
08.	LASCAR	08	04	04
09.	REST HOUSE WATCHMAN	03	01	02
10.	SANITARY KHALASI	03	02	01
11.	VALVE MEN	07	01	06
12.	GARDEN KHALASI	06	05	01
13.	KHALASI	134	98	36
	TOTAL	249	147	102

Nature of duties of staff of SSE/ JE's Works over MYS division:-

Sl No	Category/designation	Nature of duties
1	Mason	Attending masonry repair works at colony, staff quarter and service building.
2	Carpenter	Attending Carpentry repair works in Railway Colony, staff quarter and service building.
3	Fitter	Maintenance of railway colony pipe line and repair works of pipe line in staff quarter and service building.
4	Plumber	
5	Painter	Attending Painting works in colony, staff quarter, service building name boards and tank painting.
6	Care take	Working as caretaker in ORH/SRH
7	Chowkidar	Working as office watch man
8	Khalasi/Helper	Assisting all technicians for repair works and loading and unloading of materials.
9	Sanitary/Khalasi	Attending Sanitary works in colony, staff quarter, service building.
10.	Valve man	Watering arrangement

ITKM (Integrated track kilometre) of SSE/JE's Works over MYS division:-

Sl. No	SSE units	1 ITKM = 1500 Sqm plinth area
1	SSE/W/MYS	136.11
2	SSE/W/AP	24.23
	SE/W/HAS	07.17
3	SSE/W/DVG& HRR	20.38
4	SSE/WW/ASK	37.95
5	SSE/W/CTA&RRB	12.93
6	SSE /SKLR	20.78
7	SSE/W/KBPR	30.40
8	SSE/W/SMET	74.10
	TOTAL	364.05

Details of actual Staff strength as per the data collected from the field units of SSE/JE's of MYS division:

1) SSE/W/MYS:-

Sl. No	CATEGORY	S	A	V	E
01.	MASON	05	01	04	-
02.	CARPENTER	01	01	Nil	-
03.	PAINTER	02	02	Nil	-
04	FITTER/PLUMBERS	02	03	Nil	01
05.	CARETAKER	02	02	Nil	
06	CHOWKIDAR	01	01	Nil	-
07	KHALASI	62	35	27	-
08	STORE WATCH MAN	02	Nil	02	
09	LASCAR	04	02	02	
10.	SANITARY KHALASI	03	02	01	-
11.	GARDEN KHALASI	06	05	01	-
12.	VALVE MAN	01	01	Nil	
13.	LORRY ATTENDER	01	Nil	01	
	TOTAL	92	55	38	01

2) SSE/W/HAS:-

Sl. No	CATEGORY	S	A	V
01.	MASON	03	01	02
02.	CARPENTER	04	02	02
03.	PAINTER	02	Nil	02
04.	BLACK SMITH	01	Nil	01
05.	FITTER/PLUMBERS	02	01	01
06	VALVE MAN	02	Nil	02
07	KHALASI	10	03	07
	TOTAL	24	07	17

3) SSE/W/DVG & HRR:-

Sl. No .	CATEGORY	S	A	V	E
01.	MASON	09	Nil	09	Nil
02.	CARPENTER	05	02	03	Nil
03.	PAINTER	02	01	01	Nil
04.	BLACK SMITH	01	Nil	01	Nil
06.	FITTER/PLUMBERS	02	01	01	Nil
07	CHOWKIDAR	02	Nil	02	Nil
08	KHALASI	25	26	Nil	01
09	LASCAR	02	01	01	Nil
10	SANITARY KHALASI	02	Nil	02	Nil
11	GARDEN KHALASI	05	Nil	05	Nil
12	VALVE MAN	02	Nil	02	Nil
	TOTAL	57	31	27	01

4) SSE/W/AP:-

Sl. No .	CATEGORY	S	A	V
01.	MASON	01	Nil	01
02.	CARPENTER	04	Nil	04
03.	FITTER/PLUMBERS	03	01	02
04.	KHALASI	10	09	01
05.	SANITARY KHALASI	01	Nil	01
06.	VALVE MAN	01	Nil	01
	TOTAL	20	10	10

5) SSE/WS/ASK:-

Sl. No .	CATEGORY	S	A	V	E
01.	MASON	05	03	02	
02.	CARPENTER	03	01	02	
03.	PAINTER	01	Nil	01	
04.	FITTER/PLUMBERS	02	04	Nil	02
06.	BLACK SMITH	01	Nil	01	
07	CARETAKER	01	Nil	01	
08	CHOWKIDAR	01	Nil	01	
09	KHALASI	08	10	Nil	02
10	LASCAR	01	Nil	01	
11	VALVE MAN	01	Nil	01	
	TOTAL	24	18	10	04

6) SSE/CTA/RRB:-

Sl. No .	CATEGORY	S	A	V
01.	MASON	04	0	04
02.	CARPENTER	03	01	02
03.	PAINTER	01	01	0
04.	FITTER/PLUMBERS	01	0	01
05.	BLACK SMITH	01	0	01
06	CHOWKIDAR	02	02	0
07	KHALASI	13	06	07
08	LASCAR	01	01	0
09	VALVE MAN	01	0	01
10.	SANITARY KHALASI	01	0	01
11.	REST HOUSE WATCHMAN	01	01	0
	TOTAL	29	12	17

7) SSE/W/SKLR & KBPR:-

Sl. No .	CATEGORY	S	A	V
01.	MASON	03	01	02
02.	CARPENTER	04	01	03
04.	BLACK SMITH	01	Nil	01
06.	FITTER/PLUMBERS	02	01	01
07	VALVE MAN	01	Nil	01
08	CHOWKIDAR	03	01	02
09	KHALASI	29	04	25
	TOTAL	43	08	35

8) SSE/W/SMET:-

Sl. No .	CATEGORY	S	A	V
01.	MASON	03	Nil	03
02.	CARPENTER	03	Nil	03
03.	PAINTER	01	Nil	01
04.	FITTER/PLUMBERS	01	Nil	01
05	KHALASI	09	06	03
06	DRIVER	01	Nil	01
07	CARETAKER	01	Nil	01
	TOTAL	19	06	13

CHAPTER – III

SUGGESTIONS:

1. All Engineering works staff are required to be trained in multi-skilling works using modern technology.
2. Maintenance of Residential Buildings and Service Buildings can be done through maintenance contract as per Railway Board instruction vide letter dated: 15.03.2017.
3. Maintenance of work may strictly be done by implementing direct buildings maintenance scheme (DBM).
4. It is suggested for timely dismantling of identified condemned quarters to avoid Unauthorized occupation and theft of Railway materials.

CHAPTER – IV

CONCLUSION:

The work study is concluded with the recommendation for surrender of **84** posts in the units of SSE/JE's Works of MYS division which are found surplus to the requirement based on the Railway Board Benchmarking report of MAY - 2019. The money value thus obtained from these surrenders may be utilised for the creation of safety posts.

SI • No •	CATEGORY	S	A	V	No. of Posts recommended to surrender
01.	MASON	27	06	21	08
02.	CARPENTER	23	08	15	08
03.	PAINTER	11	05	06	0
04.	FITTER/PLUMBER	12	11	01	0
05.	BLACK SMITH	03	0	03	03
06.	CARETAKER	04	02	02	04
07.	CHOWKIDAR	08	04	04	08
08.	LASCAR	08	04	04	08
09.	REST HOUSE WATCHMAN	03	01	02	03
10.	SANITARY KHALASI	03	02	01	0
11.	VALVE MEN	07	01	06	0
12.	GARDEN KHALASI	06	05	01	06
13.	KHALASI	134	98	36	36
	TOTAL	249	147	102	84

CHAPTER – V

FINANCIAL IMPLICATIONS:

Implementation of work study recommendations will increase productivity in the units of SSE/JE's works Engineering Department of MYS Division and SWR can save **Rs. 4,52,60,748.00** annually as shown below:-

SI No	CATEGORY	S	A	V	Posts recommended to surrender	Emoluments per month in Rs	Annual Emoluments in Rs
01.	MASON (GP-1900)	27	06	21	08	48614.00	46,66,896.00
02.	CARPENTER (GP-1900)	23	08	15	08	48614.00	46,66,896.00
03.	PAINTER(GP-1900)	11	05	06	0	48614.00	0.00
04.	FITTER/PLUMBER (GP-1900)	12	11	01	0	48614.00	0.00
05.	BLACKSMITH (GP-1900)	03	0	03	03	48614.00	17,50,086.00
06.	CARETAKER (GP-1800)	04	02	02	04	43817.00	21,03,192.00
07.	CHOWKIDAR (GP-1800)	08	04	04	08	43817.00	42,06,384.00
08.	LASCAR (GP-1800)	08	04	04	08	43817.00	42,06,384.00
09.	REST HOUSE WATCHMAN (GP-1800)	03	01	02	03	43817.00	15,77,394.00
10.	SANITARY KHALASI (GP-1800)	03	02	01	0	43817.00	0.00
11.	VALVE MEN (GP-1800)	07	01	06	0	43817.00	0.00
12.	GARDEN KHALASI (GP-1800)	06	05	01	06	43817.00	31,54,788.00
13.	KHALASI (GP-1800)	134	98	36	36	43817.00	189,28,728.00
	TOTAL	249	147	102	84		4,52,60,748.00

ANNEXURES

Sl. No.	Description	Annexure
1.	BOS OF 1/4/2018 as issued by Sr.DPO/O/MYS	I
2.	Actual staff On Roll statement of respective SSE/Works units	II
3.	ITKM details of respective of SSE/JE's Works of MYS division.	III
4.	Railway Board Benching marking report of MAY – 2019	IV
5.	Railway Board letter dated 10.01.2017 Para 6	V