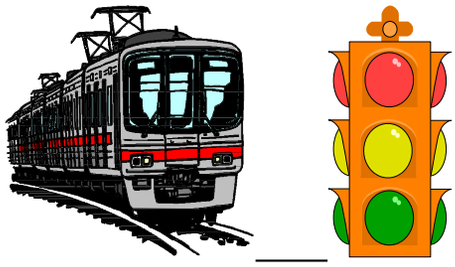

WORK STUDY TO REVIEW THE STAFF STRENGTH OF SSE/SIGNAL/TPJ AT TPJ DIVISION

SOUTHERN RAILWAY

PLANNING BRANCH

G. 275 / WSSR-411819 / 2018-19

WORK STUDY TO REVIEW THE STAFF STRENGTH OF SSE/SIGNAL/TPJ AT TPJ DIVISION

STUDIED BY

WORK STUDY TEAM
OF
PLANNING BRANCH

JUNE 2019

(i)

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(i)
ACKNOWLEDGEMENT

The work study team acknowledges its gratitude to Sr.DSTE/TPJ, ADSTE/TPJ (Co-ordinating Officer), SSE/S/RRI/TPJ (Coordinating Supervisor) and other signalling staff working under SSE/S/RRI/TTPJ for their valuable inputs and guidance in conducting and completing the study in time.

(ii)
AUTHORITY

Annual programme of work studies, approved by SDGM for the year 2018-19.

(iii)
TERMS OF REFERENCE

To review the staff strength of SSE/Signal/TPJ section in TPJ Division.

(iv)
METHODOLOGY

The following methodology has been adopted while conducting the study:

1) Collection of data

2) Discussion and interaction with officers and supervisors of the unit.

3) Field observation

4) The requirement of man power has been arrived on need base and application of benchmark norms.

(V)

SUMMARY OF RECOMMENDATIONS

Recommendation No.1

One vacant post of Technician - III in GP Rs.1900/- may be surrendered and credited to Vacancy Bank**.** **(One Post)**

Recommendation No.2

Two posts of Helper in GP Rs.1800/- sanctioned excess to the requirement may be surrendered and credited to Bank of surplus post**.** **(Two Posts)**

(Total 3 posts)

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CHAPTER – I

1.0 INTRODUCTION

1.1 Signalling is an important requirement for the safe and punctual running of trains. It also helps to increase speed and frequency of operation and to reduce failures in human operations. The signalling system in Railways have made tremendous progress from the old semaphore signals with Kerosene lamps etc to the fully automatic signalling and looks forward to cab signalling now. The interlocking of the signals with points, level crossings, block instruments, track, wind, falling rocks etc makes it a ubiquitous arrangement in all walks of Railway operations. The monitoring system like data loggers, BPAC, Computerised on line panel testing etc have made the maintenance and inspections more efficient and foolproof. Anti Collision Device (ACD), integrated power supply, LED lamps, PA / coach guidance / train display boards, integrated surveillance system etc have a big role in enhancing safety, security and customer help.

1.2 The signal department is headed by PCSTE in the zone and Member/Electrical at the Board Level. Sr.DSTE is the head of the department in the Divisions.

1.3 In addition to Signalling department, there are separate wings for construction and project for S&T Department. The Tele-communication wing is also separated in sections. The OFC Wing and the Railtel are also involved in the installation activities. The Station Working Rules (SWR) of stations is prepared by operating department along with S&T Wing. The signal manual, general rules, block working manual etc are the governing rules and instructions related to S&T Department. There are many joint inspections with operating, engineering and electrical departments and maintenance works are to be carried out in liaison with these departments.

1.4 The Signal and Telecommunication Department is responsible for the installation and maintenance of the Signalling system essential for the safe and speedy movement of trains and the Telecommunication systems required for the effective utilisation of the large fleet of locomotives, other rolling stock and track as well as for the administration of the vast Railway Network. In terms of the

sophistication in Signalling and Telecommunication installations, Southern Railway occupies the place of pride among the various Indian Railway systems.

1.5 Keeping the above objectives in view, an analysis is made to study the present system of functioning in SSE/S/RRI/TPJ Unit of TPJ Division through Benchmarking and need basis as a means of reducing cost and improving productivity. It is the process of comparing the performance with the most successful competitor who is managing with optimum productivity level. With the increased DESUS and further scope of growing technology, the workload Vs requirement of the manpower is critically examined in the subsequent chapters.

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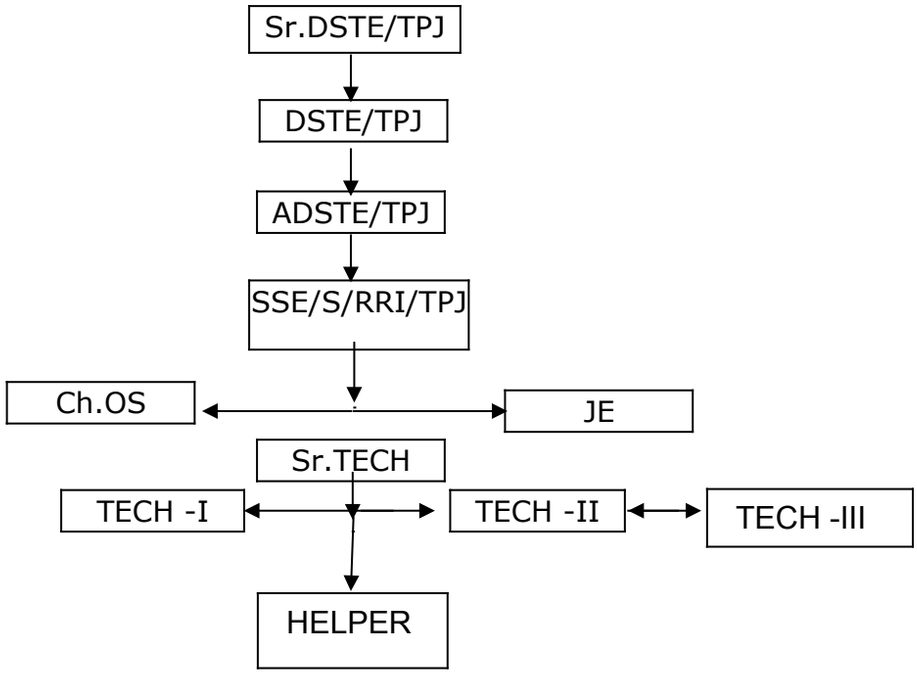
CHAPTER - II

2.0 PRESENT SCENERIO

2.1 The SSE/Signal/RRI /TPJ Section includes

SSE in-charge for all sections
JE incharge for TPJ Yard partially, GOC Yard Partially, TRB & LC Gates
JE incharge for TPJ Yard partially, GOC Yard Partially, TRB & LC Gates
CH.OS (Looking after 3 Sections (SSE/RRI/TPJ, SSE/TJ & SSE/LINES/TPJ) – (Each section for 2 days in a week)

2.2. **Organisational Structure:**



2.3 **The following are the stations in the jurisdiction of SSE/Signal/RRI/TPJ**

1. TPJ Yard @ KM 340.29, EI with 327 Routes
2. GOC Yard @ KM 337.45, EI with 184 Routes
3. ARMG Hut @ KM 335/000, Slave EI of Distributed version
4. MCJ Hut @ KM 399/700, Slave EI of Distributed version
5. TRB Station @ KM 394.82, EI with 32 Routes
6. TOM Station @ KM 389.57, IBP with HASSDAC Axle Counters
7. SGM Station @ KM 383.74, EI With 28 Routes

8. LC No 324 @ KM 400/000-100, Interlocked with GOC Panel working
9. LC No 323 @ KM 399/500-600, Interlocked with GOC Panel working
10. LC No 322 @ KM 399/100-200, RRI with Panel working
11. LC No 321 @ KM 398/500, RRI with Panel working
12. LC No 319 @ KM 395/900-396/0, RRI with Panel working
13. LC No 317 @ KM 392/400-500, RRI with Panel working
14. LC No 316A @ KM 390/100-200, RRI with Panel working
15. LC No 316 @ KM 387/300-400, RRI with Panel working
16. LC No 314 @ KM 385/300-400, RRI with Panel working

2.4 Types of Signalling and System of working:

Station	**System of working**	**Standard of Interlocking**	**No of Routes**
TPJ	Electronic Interlocking	Std I R	Major RRI (327 Routes)
GOC	Electronic Interlocking with 10 OC	Std II R	Major RRI (184 Routes)
ARMG	Electronic Interlocking with 3 OC	Included with GOC, Std II R	-
MCJ	Electronic Interlocking with 4 OC	Included with GOC, Std II R	-
TRB	Electronic Interlocking	Std II R	Major RRI (32 Routes)
TOM	Intermediate Block Signalling	-	-
SGM	Electronic Interlocking	Std II R	Major RRI (27 Routes)

2.5 **Staff strength:-**

The details of the Sanction, Actual, Vacancy and Excess staff strength is given in **Annexure – I.** As per the DPO/TPJ letter No.T/P524/IX/S & T Admin dated 14.12.2018 and the actual staff working at SSE/S/RRI/TPJ are given below:

S.No	Designation	Sanction	Actual	Vacancy	Excess
1.	SSE	2	1	1	0
2.	JE	2	2	0	0
3.	Sr.Tech	6	6	0	0
4.	Tech-I	11	9	2	0
5.	Tech-II	3	5	0	2
6.	Tech-III	2	1	1	0
7.	Helper	5	7	0	2
8.	Ch.OS	1	1	0	0
Total		32	32	4	4

The above sanctioned strength of staff is not yet pin pointed.

2.6 **DUTY ROSTER OF SSE/S/RRI/TPJ**

RRI YARD/TPJ

Sl.No	Section	Sr.Tech	Tech-I	Tech-II	Tech-III	Helper	Total	REMARKS
1	TPJ	05	05	02	-	06	**18**	TPJ RRI/EI Yard

Days	MCM-1/ Grade I-1	MCM-1/ Grade I-1	MCM-1/ Grade I-1	MCM-1/ Grade II-1 (RG)
Sunday	REST	00.00-07.00	07.00-11.00 21.00-24.00	11.00-21.00
Monday	11.00-21.00	Rest	00.00-07.00	07.00-11.00 21.00-24.00
Tuesday	07.00-11.00 21.00-24.00	11.00-21.00	Rest	00.00-07.00
Wednesday	00.00-07.00	07.00-11.00 21.00-24.00	11.00-21.00	Rest
Thursday	11.00-21.00	00.00-07.00	07.00-11.00 21.00-24.00	07.00-12.00 (GOC) 14.00-17.00 (GOC)

Friday	07.00-11.00 21.00-24.00	11.00-21.00	00.00-07.00	07.00-12.00 20.00-24.00 (GOC)
Saturday	00.00-07.00	07.00-11.00 21.00-24.00	11.00-21.00	00.00- 07.00(GOC)
Total Hours	48 Hours	48 Hours	48 Hours	48 Hours

General Duty Helpers – 07.00 to 12.00 & 14.00 to 17.00

RRI YARD/GOC Staff Particulars

Sl.No	Section	Sr.Tech	Tech-I	Tech-II	Tech-III	Helper	Total	REMARKS
1	GOC	01	02	01	01	01	**06**	GOC/ARMG HUT/MCJ HUT

Duty Roster

General Duty – 5 Nos – 07.00 to 12.00 & 14.00 to 17.00, Rest on Sunday

Call Duty – 2 Nos – Grade 1, From TPJ Yard, Helper 1, From GOC – 18.00 to 06.00 – 12 Hours (EI Roster)

TRB Control Staff

Sl.No	Section	Sr.Tech	Tech-I	Tech-II	Tech-III	Helper	Total	REMARKS
1	TRB	01	01	02	-	-	**04**	TRB, TOM, SGM, LC319, LC317, LC316, LC316A & LC314

Duty Roster

General Duty – 04 Nos – 07.00 to 12.00 & 14.00 to 17.00, Rest on Thursday

2.7 **Duties of Supervisors & Technicians:**

1. Monthly inspections in TPJ Yard, GOC Yard, TRB & SGM, LC322, LC321, LC319, LC317, LC316A/TOM, LC316, LC314

2. Special works carried out like Periodical renewal of signalling gears

3. Alterations of circuits issued from the Head Quarters

4. Foot Plate inspection

5. Annual cable meggering

6. Attending accident & derailments

7. Counselling of staff

8. Attending failures

9. Preparing documents such as infringement of gears, Track circuit calculations, earth readings.

10. Complaints for the letters & inspections by the officers of Signal & Other department

11. Attending annual inspections conducted by HOD's, PHOD's and other officers

12. Commissioning of new works

13. Attending meeting with higher officials and with other departments

14. Carried out Power Audits at stations indoor & outdoor signalling gears

15. Analysing everyday's fault logics triggering through data logger and report sent to head quarters.

16. Excess/Unwanted materials released from the section are taken into account and get approval from officers and returned to Stores (DS8)

2.8 LC Gates:-

There are 5 LC Gates provided between TRB – GOC and 4 LC gates are provided between SGM - TRB **(Total 09).** All the gates are interlocked and communications have been provided to the concerned stations. Of the 9 LC gates, one LC gate is traffic gate and the others are engineering gates. The details are enclosed in **(Annexure - II)**

2.9 Divisional Signal Units in SSE/S/RRI/TPJ section:

Sl. no As per Lr	Description of equipment	Unit	TPJ Yard	GOC STN	LC322 & LC321	LC 319	TRB STN	LC 317	LC 316A & TOM	LC 316	LC 314	SGM STN	TOTAL	
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Unit
10	Colour light signal 2 A	6.0	25	19	2		4	2	4	5	2	4	**67**	**402**

11	Multiple CLS	6.0	7	8	3	2	5	1	2		1	6	**35**	**210**
12	Route indicator per route	6.0	21	13			2					2	**38**	**228**
13	Colour /Position light shunt signal and SPI	4.0	41	27			6					2	**76**	**304**
14	Calling on signal	0.5	24	23			2					2	**51**	**25.5**
15	Illuminated AAG Signs and Guards Repeater Signals	0.5	6										**6**	**3**
17	IBS Signal and Electronic Stop Signals only												**0**	**0**
18	Slot or control for signal, point, crank handle, inter cabin, station master's LC gate mechanical or Elec.	2.0	74	71	0	0	19					17	**181**	**362**
22	Double rail DC Track Circuit	6.0	98	99			31		4			28	**260**	**1560**
28	Digital Axle Counter per controlled Track	6.0		4			6					4	**14**	**84**
	POINTS												**0**	**0**
32	Key locked point	3.0		1									**1**	**3**
	LC GATE												**0**	**0**
37	Electrically operated point and lock	6.0	55	23			4					4	**86**	**516**
51	LC gate phone only within station limit	2.0		1	1	1	1	1	1		1	1	**8**	**16**
52	LC gate phone only outside station limit	10.0								1		1	**2**	**20**
53	LC gate - swing gate interlocked within station limits	3.0											**0**	**0**
54	LC gate LB winch operated within station limits	4.0		2			2					1	**5**	**20**
56	LC gate - swing gate interlocked outside station limits	15.0										1	**1**	**15**
57	LC gate LB	20.0		2			1					1	**4**	**80**

	winch operated outside station limits												
	BLOCK INSTRUMENT											**0**	**0**
63	Double line block instrument per pair	6.0		2			2				2	**6**	**36**
64	Extra Weitage for RE Area	1.0	1	1	1							**3**	**3**
65	Key transmitter per pair (RKT)	1.0	16	16			4				4	**40**	**40**
	OTHERS											**0**	**0**
71	RRI/PI per route	2.0	327	184			32				27	**570**	**1140**
76	Indicator boards shunting / block limit, sighting and others	0.5	3	2								**5**	**2.5**
	Axle Counter Complete	20.0										**0**	**0**
	Data logger	10.0	1	1			1				1	**4**	**40**
	Generator	25.0	1	1			2			1	2	**7**	**175**
	Point to point phone	1.0	16	16			4				4	**40**	**40**
	TOTAL		**716**	**516**	**7**	**3**	**128**	**4**	**11**	**7**	**4**	**114**	**1510**	**5325**

2.10 **Signal Failure Statistics at SSE/S/RRI/TPJ:-**

Sl. No	**Descrip-tion**	**2016**				**2017**				**2018**				**Total**
		TPJ	**GOC**	**TRB**	**SGM**	**TPJ**	**GOC**	**TRB**	**SGM**	**TPJ**	**GOC**	**TRB**	**SGM**	
1	Signal	10	12	01	0	03	18	05	0	0	03	01	01	54
2	Track	04	01	0	01	04	04	0	01	04	02	0	0	21
3	Point	04	01	03	0	01	04	01	04	01	02	0	01	22
4	Block	01	01	04	03	0	0	06	08	0	0	02	01	26
5	Others	24	08	09	04	27	42	10	06	20	13	19	04	186
Total		**43**	**23**	**17**	**08**	**35**	**68**	**22**	**19**	**25**	**20**	**22**	**07**	**309**

2.11 Details of Maintenance schedule of signalling assets

Every fortnight, the following signalling gears, parameters are checked, cleaned and readings are recorded in the prescribed format given by the Head quarters

1. Point Machines
2. Signals (Main & Shunt, SPI, Route Indicators & C-On)
3. Locations, Cable HUT, Gate Lodge
4. Track circuits
5. Batteries
6. SPT
7. Renewals of lead wires
8. LC gate maintenance
9. IPS
10. Generators
11. COA
12. Data Logger
13. Relay Room
14. Panel
15. SM's VDU
16. MT VDU
17. Block Instruments
18. Axle Counters
19. Changeover of EI Systems
20. Cleaning of Vegetation around the locations & Signalling gears

2.12 List of Equipments, Tools & spares available at the control of SSE/S/RRI/TPJ:

Equipments:

1. Chargers	5. Axle Counter	9. Monitoring Systems
2. LED	6. Relays	10. Illumination Panel & VDU
3. Point Machine	7. IPS	11. Computer
4. Block Instrument	8. Batteries	12. And other miscellaneous Items

Tools:

1 Drill Bits	12 Generator Portable	23 Steel Punches
2 Tommy Bars	13 Hammer	24 Shunt Resistance
3 Chisel cold	14 Hack Saw Frame	25 Relay Testing Kit
4 Computer	15 Iron Soldering Electric	26 Rail Jumper
5 Crimping Tool	16 Insulation Tester	27 Spanner S.E.
6 Screw Driver Set	17 Lever Sprit	28 Tong Tester
7 Earth Megger	18 Drilling Machine Electric	29 Vice Bench
8 File Flat	19 Grinding Machine Electric	30 Wrench
9 Flags Banner	20 Mamootes	31 Walkie-Talkie
10 Hand Rubber Gloves	21 Meter Testing	
11 Grease Gun	22 Cutting Pliers	

Spare Materials:

1. Track Chargers	12. Fuse HRC 2Amps	23. Lead Seal	34. Oil SAE 30/40
2. Battery Charges of different capacities	13. Hacksaw Blade	24. LED Aspect Green	35. Paint Aluminium with Paste
3. Relays	14. Hydrometer	25. LED Aspect Red	36. Paint Enamel Black
4. Spare cards for EI	15. Ins. D Bracket	26. LED Aspect Yellow	37. Paint Enamel Red
5. Spare cards for HASSDAC	16. Ins. L Bracket	27. LED Calling on	38. Paint Enamel White
6. Spare Tools	17. Ins.Flexible stretcher Set	28. LED Route	39. Paint RED Oxide
7. Block Instrument	18. Ins.Gauge Tie Plate	29. LED Shunt	40. Solder Rosin Core
7. Block Instrument	18. Ins.Gauge Tie Plate	29. LED Shunt	40. Solder Rosin Core
8. Track Drill bit Spares	19. Ins.RJ 52KG Set	30. M S Packing Plate	41. Tape Insulation
9. SPT	20. Ins.RJ 60kg Set	31. Oil Axle Mineral	42. Transmitter Insert
10. Bond Wire 8 SWG GI	21. Ins.RJ.90R. Backing Plate	32. Oil HSD	43. Ward Spring
11. Epoxy Gel Coat	22. Kettle Element	33. Oil Kerosene	44. Waste Cotton

13 **Details of special works and outsourcing activities carried out by SSE/S/RRI/TPJ:**

1. Commissioning of LC Gates – LC316, LC317, LC322 and done by external agencies and completed on 18.03.2017

2. EI Commissioning at TP Yard 04-2016

3. Bye-pass Commissioning at GOC Yard on 30-01-2017

4. GOC-SRGM Doubling commissioning at GOC Yard on 30-05-2017

5. GOC-TRB, LC322, LC321, LC319, TRB-TOM, LC317, LC316A, TOM-SGM, LC314 Doubling commissioning on 30-09-2017

6. Periodical renewal of Track Charges and batteries on 13-06-2017

7. LUS work done by External Agencies and completed on 29-11-2018

8. Periodical renewal of Point Machine – 30 Nos done by External Agencies completed on 24-06-2018

9. 3rd Line between TPJ-GOC and GOC-DG Commissioning done on 28-03-2018

10. Commissioning of IPS for DG Side at TPJ Yard on 30-07-2018

11. 52kg to 60kg Layout replacing work TPJ 15 Nos & GOC 7 Nos (total 22 Nos) work in progress.

2.14 Details of Modification projects, technical up gradation, introduction of Modern Equipments' Electronic signalling systems. Etc.

1. Relay interlocking is changed to Electronic Interlocking at stations {TPJ-Medha, GOC-Medha, TRB-Kyosan & SGM-Kyosan}
2. SM Slides in LC Gates is changed to RRI Panel in the following gates

   {LC 314, LC316, LC316A, LC317, LC319, LC321, LC322}
3. Batteries Bunk with Chargers for individual circuits Like internal, External, Block Line, Block Local, Tele, Point, etc.. are replaced with Integrated Power supply{IPS} in the following stations & LC's

   {TPJ, GOC, ARMG Hut, MCJ Hut, TRB, TOM, SGM, LC 314, LC316, LC316A, LC317, LC319, LC321, LC322}
4. Single Section Digital Axle counter for BPAC are replaced with High Availability Single Section Digital Axle Counters at GOC-TRB, TRB-TOM, TOM-SGM
5. Conventional SM's Operating Panel are replaced with Dual VDUs in all Stations
6. Control Office Applications for installed at TPJ Yard for monitoring the real time entry and exit of trains with platform and networked through CRIS
7. All bulbs in signals are replaced with LED in the entire sections.
8. Track Charger failure monitoring systems are installed in stations

9. Conversional Power supply of Solar panel installed in LC Gates and TOM Stations
10. Earth Leakage Detector {ELD} installed in all stations to minimise earth fault in cables
11. Intermediate Block Signal introduced between TRB-SGM on UP & DN Lines to increase frequencies of train
12. SMS Alert Systems are provided at LC Gates to triggering messages during IPS failures
13. SMS Alert Introduced to all SSE/JE/ESM during any signaling gear failures through Data Logger
14. Signal abnormalities which is noticed by Driver/Guard are SMS through ABNR via AD-IRCRIS and also monitored by S&T Control
15. Exceptional Report are analysed regarding S&T Gear failures through data logger daily at 16.00hrs and report sent to head quarters for further review.

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CHAPTER – III

3.0 CRITICAL ANALYSIS

3.1 Right sizing of Man Power in Railways is an ongoing process and it is being done after assessment by Planning Branches of concerned Divisions, Departments and by the specialized common branch under SDGM. Railway Board is fixing the annual target for surrender of posts for every zone. Technological improvements, computerization, investments in modernization, improved skills and training and even certain external factors like availability of competitive and quality products from outside, improvement and economy in outsourcing, transport etc help to achieve a better man power ratio. The productivity per employee calls for a work force which is optimum for the requirement. The ground realities are given due consideration during the review of staff strength.

3.2 A work study will have to consider not only the yardstick and benchmarks but also the scope for revising the yardsticks and for attaining or even excelling the

benchmarks. Certain macro factors are also to be considered though the work study is basically a micro study of various activities, processes and time. Though the quantum of idle man power may not be linear across the departments or divisions, every unit has to strive hard to achieve the common target. This is especially so in Southern Railway since our productivity per employee ratio is less than the whole IR average. The magnitude of pending projects also demands such savings.

3.3 The failure analysis shown in para No.2.10 does not provide any perfect guidance or norms for the arrival of man power requirement. Apart from attending failures, signal maintainer has to perform the routine, preventive check and maintenance. Also in changing scenario of signaling ie., Electronic Signaling system, warrants outsourcing of certain activities such as maintenance activities through OEM/AMC contracts for the electronic items like charger inverter, CVT, IPS, Data logger, AFTC, Digital Axle Counter etc.

Therefore the study team has adopted benchmarking methodology to arrive the man power requirement for rightsizing the man power to improve the efficiency coupled with productivity.

3.4 **DESU Based Calculation:**

Divisional Equated Signal Units is a derived unit from signal units after the addition of many other factors and constants like annual train kms, route kms etc., the abbreviations in the formula are as under:-

I.	**A 1**	**=**	**Total No. of Signal Units at TPJ**	**= 76034.0**
II.	**F**	**=**	**Annual trains kms**	
	ii) H	=	Passenger & Proportion of Mixed trains	= 5620.664
	i) J	=	Goods including goods portion of Mixed trains	= 832.022
	ii) K	=	Department trains	= 44.693
	iii) L	=	EMU trains	= 1372.331
	iv) Total F=		**H + J + K + L**	**= 7869.710**

III. **Calculation of A2**

i) G = Total route KMs = 836.000

ii) Z = F/G - 7.3 = 2.114

iii) **A2 = A 1 (F / G - 7.3) 3.42 / 100 =5495.941**

IV. **Calculation of A3**

i) A3 =A1 /G(Signal Units/Route kms) = 90.950

ii) value of Y = 0.000

V. **Calculation of A4**

i) Z = F/G = 9.41

ii) **A4 = A1 X Z X 0.94 / 100 = 6725.511**

VI. **Calculation of A5**

A5 = G X 1.67 = 1396.120

DESU = A1 + A2 + A3 + A4 + A5 = (76034+5495.941+0+6725.511+1396.120) = 89651.452 for **SSE/S/RRI/TPJ**

3.5 **Requirement of man power for SSE/S/RRI/TPJ:**

The bench mark ratio of signalling divisions having less than 120 Divisional Integrated Signalling & Telecom units (DISTUs) and the current bench mark man power ratio as on Nov 2018 published by Railway Board is as follows:

1. Current IR average B/M : 3.80 men per thousand DESU. (Copy enclosed)

2. Current Man power Ratio B/M : SA division of SR at 2.38

As per the above, the current bench mark man power ratio of Indian Railway, SA division is the least one with 2.38 men to maintain the Signalling units having less than 120 DISTUs. TPJ division is also having less than 120 DISTU. If the IR Bench mark has applied, it is difficult to reach at par ratio of SA division immediately. **The unit may try to reach the IR bench mark gradually**. Hence, instead of applying the least man power ratio of 2.38 men for thousand DISTUs,

the work study team has taken the Indian Railway average current bench mark ratio of 3.80 to arrive the requirement of man power for SSE/S/RRI/TPJ.

1. DESU of TPJ division = 89654
2. Total Signal units at TPJ division = 76034 (Ref. A1)
3. Total number of Signal Units at SSE/S/RRI/TPJ = 5325.0 (Ref. Para 2.9)
4. The ratio of DESU = 89654/76034 = 1.179 **(Say 1.18)**
5. DESU for SSE/S/RRI/TPJ = 5325 X 1.18 = 6283.5 **(Say 6284)**
6. Current IR average Bench Mark = 3.80
7. Requirement of man power for current DESU = 6284/1000 X 3.80 **= 23.87 (Say 24 staff)**

In addition to above staff, two SSEs are allowed to act as over all in-charge for office as well as sections. Apart from that, one JE in each location at GOC and TRB respectively (Total - 2) are allowed to look after the concerned location duties. To do the office, stores and other correspondence work, one Ch.OS is allowed. **(Total – 5)**

3.6 The **Net requirement of staff for SSE/S/RRI/TPJ** is tabulated below:

Sanction Vs Requirement :

Sl. No	Category	Sanction	Actual	Requirement	Surplus
Supervisors					
1	SSE	2	1	2	0
2	JE	2	2	2	0
Total		**4**	**3**	**4**	**0**
Technicians/Helpers					
3	Sr. Technician	6	6	6	0
4	Technician – Gr.I	11	9	11	0
5	Technician – Gr.II	3	5	3	0
6	Technician – Gr.III	2	1	1	1
7	Helper	5	7	3	2
Total		**27**	**28**	**24**	**3**
Office Staff					
8.	Ch.OS	1	1	1	0
Total		**32**	**32**	**29**	**3**

Recommendation No.1

One vacant post of Technician - III in GP Rs.1900/- may be surrendered and credited to Vacancy Bank**.** **(One Post)**

Recommendation No.2

Two posts of Helper in GP Rs.1800/- sanctioned excess to the requirement may be surrendered and credited to Bank of surplus post**.** **(Two Posts)**

(Total 3 posts)

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CHAPTER – IV

4.0 PLANNING BRANCH'S REMARKS ON CO-ORDINATING OFFICER'S VIEWS

4.1 The draft work study report was handed over to the Co-ordinating Officer (ADSTE/TPJ) on 01.02.2019 and a reminder also sent on 17.04.2019. But, so far, no reply has been received. The time limit allowed for the Co-ordinating Officer to respond is only 15 days.

In this connection, the Co-ordinating officer has not responded even after 56 days, from the date submission of the draft report.

Hence, the report os released without the remarks of the Co-ordinating Officer.

CHAPTER – V

5.0 FINANCIAL SAVINGS / TPJ

5.1 If the recommendations made in the study report are implemented, the annual recurring financial savings will be as under:

Sl. No.	Category	Grade pay (Rs.)	No.of post	Mean Pay (Rs.)	Annual Financial savings (Rs.)
1	Technician – Gr.III	1900	1	45290	5,43,480
2.	Helper	1800	2	40821	9,79,704
Total			**3**		**15,23,184**

ANNEXURE – I

SCALE CHECK OF SSE/S/RRI/TPJ

Sl. No.	Category	GP Rs.	Sanction	Actual	Vacancy	Excess
1	SSE	4600	2	1	1	0
2	JE	4200	2	2	0	0
3	Office Supdt.	4200	1	1	0	0
4	Sr. Technician	4200	6	6	0	0
5	Technician – Gr.I	2800	11	9	2	0
6	Technician – Gr.II	2400	3	5	0	2
7	Technician – Gr.III	1900	2	1	1	0
8	Helper	1800	5	7	0	2
Total			**32**	**32**	**4**	**4**

Note: Sanctioned strength is not yet pin pointed.