



WORK STUDY
ON
REVIEW OF STAFF STRENGTH OF SSE/C&W/NBQ UNIT UNDER SR DME/RNY IN RANGIYA
DIVISION.

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STUDY NO. WSNF/ 24 /2018-19

CASE NO. Z/375/10/24 /2018-19

CENTRAL PLANNING ORGANISATION

N. F. RAILWAY/MALIGAON

GUWAHATI – 781011

EXECUTIVE SUMMARY

**SUBJECT : “REVIEW OF STAFF STRENGTH OF SSE /C&W/NBQ UNIT UNDER Sr DME/RNY
IN RANGIYA DIVISION”.**

STUDY NO	:	WSNF/ 24 /2018 -19
CASE NO	:	Z/375/10/ 24 /2018 -19
AUTHORITY	:	SDGM/N.F.R.
CONCERNED DIV.	:	RANGIYA.
DEPARTMENT	:	MECHANICAL.
DATE OF COMMENCEMENT	:	14.05.2018.
DATE OF COMPLETION	:	28.05.2018.
DATE OF SUBMISSION	:	28.05.2018.

TERMS OF REFERENCE:

Approved annual Programme of Work Study for the year 2018-19

NOS. OF RECOMMENDATION: 1 (One).

The study team has identified total 24 nos. of vacant Posts different categories (Sr.Clerk- 1, Tech Gr-III - 6, Tech Gr-I (Painter) -1, Tech Gr-I (Welder) - 1 Tech Gr-I (AC Driver) -1, Tech Gr-II (Carpenter) - 1, Tech Gr-I (Crane driver) -1, Khalashi helper-12) as surplus and proposed for surrender.

PROJECTED MAN POWER : 24 Posts.

PROJECTED FINANCIAL SAVING : Rs 109.23 Lakhs per annum.

MONTH AND YEAR OF CIRCULATION : May/2018

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CHAPTER -1

1.0. INTRODUCTION :

The main area of responsibility Mechanical Department.

Train Operation.

Motive Power Availability.

Crew Management.

Rolling Stock Management.

Traffic Restoration in case of accident.

Production Units – Locomotives, Coaches, Wheel Sets Etc.

Repair and manufacturing workshops.

All the Coaches and Wagons are maintained by the mechanical Department. The Air- Conditioning part of the Coaches on the system is maintained by the Electrical Department.

2.0. ACKNOWLEDEMENT :

Work Study team is grateful to Shri M.K.Nagar Sr DME/RNY for his kind guidance and Cooperation for conducting this study.

Work Study team is grateful to Shri D . Pathak DME/NBQ and P. Brahma SSE /C&W/NBQ for his assistance rendered to the Work Study team for conducting the subject study.

3.0. RATIONALE FOR CONDUCTING THIS STUDY.

Man power is the most costly and precious resource over Indian Railway and right sizing is the need of the hour.

Focusing attention on core activities by reducing/elimination of non-core activities .

Improving the efficiency (output/input) either by improving the output(numerator) or by decreasing the input (denominator)

Multi-skilling of existing staff and combining various activities.

Up-gradation/introduction of automation/Innovations.

Outsourcing the non-core activity.

Availability of better process/technology.

Reducing /removing redundancy in work.

4.0. TERMS OF REFERENCE :

Annual work study programme approved by SDGM/NFR.

5.0. METHODOLOGY :

a) Discussion with Sr Subordinate.

During field work, discussion was done regarding present work load of the depot and adequacy of staff strength with respect to present work load, any further prospects of the depot with Senior Subordinate and yard stick for workload versus manpower required is utilized in this study. The nomination of official regarding this study is placed as Annex-I

b) Collection of Data relating to Workload.

Relevant data was obtained from SSE/C&W/NBQ, on the basis data obtained assessment of workload is done in the study report.

c) Assess the workload for monthly turn out and target.

Assess the workload is done in Chapter –II.

d) Assess of Staff requirements for the above workload.

Assess of Staff requirement is done in Chapter –III.

CHAPTER -II

SUMMARY OF WORKLOAD.

The main function of C&W depot is to examine the wagon in the pit line , sick line, train passing examination and other Miscellaneous activity such as collection of scraps, Dressing of Store Materials, Chasing and Collection of Materials and to maintain record/accounts of store, to keep in good condition for any movement to accident site ,to maintain M&P and tools, collection of broken parts from accident site , arrangement of spares for accident involved rolling stock timely replacement of consumable items like DA Oxygen gas , nuts-bolts , oils etc.

DIFFERENT WORKLOAD AND ACTIVITIES OF C&W DEPOT/NBQ

1. **No.of pit line & length: 01**

L/No – 49

LENGTH – 382.5 Meter

2. **Holding capacity of coaches in each pit.**

L/No:- 49

Coaches: -17

3. **Jurisdiction of Depot:-**

SL	LINE	AREA	KM
1	BG-1	NBQ- PBL	66 km
2	BG-2	NBQ - AZRA	162 km
3	BG-3	DDNI-MNDP	19 km
TOTAL			247 km

4. **Primary Maintenance :**

No of Rakes/day

1.3 Rakes/day

5. **Secondary Maintenance**

Train No. /rakes: -

19 Coaches/day (Consisting Millinium Parcel, Millitary spl,

Demu and other spares.

6. **No of goods trains Originates at yard/day - 3.3 trains/day.**

7. Details of train attended at (last one week).

SN	Train No	Date	Service from -To	Total Coach	Gauge
Pit Line					
1	55809 up + 55801 up (spare)	23.04.18	12/10-16/00	17	
2	55801 up	24.04.18	00/00-03/50	17	
3	55809 up +Spares	24.04.18	12/10-16/15	15	
4	Spares	24.04.18	17/30-19/00	06	
5	55809 up +Spares	25.04.18	12/10-16/00	12	
6	Spares	26.04.18	00/20-01/40	04	
7	55809 up + 55801 up (spare)	26.04.18	12/15-16/00	17	
8	55801 up	27.04.18	00/00-3/55	17	
9	55809 up +Spares	27.04.18	12/10-16/05	11	
10	Dn Millitary Spl + Spares	27.04.18	16/45-19/00	07	
11	Up/Dn Millitary Spl	28.04.18	01/25-04/30	08	
12	55809 up +Spares	28.04.18	12/25-16/00	12	
13	Spares	28.04.18	16/40-18/30	05	
14	55809 up +Spares	29.04.18	12/10-16/05	16	
15	Spares	29.04.18	17/10-19/30	10	

SN	Train No	Date	Service from -To	Total Coach	Gauge
Freight Examination Yard.					
1	Up BOXN ES	23.04.18	01/20-09/50	60	
2	Up NGC Spl	23.04.18	10/00-11/45	21	
3	Dn BCN ES	23.04.18	11/55-15/15	43	
4	Dn BCN ES	23.04.18	08/30-13/30	43	
5	Dn BCN ES	23.04.18	15/30-20/30	43	
6	Dn Test Wagon	23.04.18	19/10-19/40	06	
7	Dn BRPL BTPN	23.04.18	20/45-02/30	52	
8	Dn BCN ES	24.04.18	02/40-07/30	41	
9	BTPN SL Lead	24.04.18	04/30-04/40	01	
10	Dn BCN ES	24.04.18	07/40-12/00	43	
11	Dn STA BCN ES	24.04.18	12/35-17/00	44	
12	Dn STA BCN SL Lead	24.04.18	17/50-18/00	02	
13	Dn BCN ES	24.04.18	18/30-23/20	43	
14	Dn BCN ES	25.04.18	01/10-05/30	43	
15	Dn FKM/C/Sleeper	25.04.18	07/30-08/30	12	
16	Up Dn JTTN Salt	25.04.18	13/20-17/40	43	
17	Dn BCN ES	25.04.18	17/50-23/45	43	
18	Dn BCN ES	26.04.18	00/25-04/45	43	
19	Dn BCN ES	26.04.18	09/10-13/50	43	

20	Dn Test Wagon	26.04.18	09/30-10/00	06	
21	Dn NJP Spl	26.04.18	14/15-18/45	41	
22	Dn BCN ES	26.04.18	23/00-04/00	43	
23	BTPN ES	27.04.18	01/05-01/30	04	
24	Dn BCN ES	27.04.18	09/30-13/40	43	
25	Dn BRPL Test Wagon	27.04.18	14/20-14/50	06	
26	Dn NJP Spl	27.04.18	20/40-21/55	12	
27	Up/Dn Military Spl	27.04.18	23/50-01/40	19	
28	Dn BRN ES	28.04.18	01/50-03/00	14	
29	Dn BCNHL ES	28.04.18	09/25-13/50	59	
30	Dn BCN ES	28.04.18	08/05-08/10	01	
31	Dn BCN ES	28.04.18	08/35-08/45	01	
32	Dn BRPL BTPN.	28.04.18	19/10-23/30	52	
33	Dn BCN ES	29.04.18	01/55-05/50	44	
34	Dn BCN ES	29.04.18	06/15-10/35	43	
35	Dn BCN ES	29.04.18	10/50-15/50	44	
36	Dn BCN ES	29.04.18	16/35-20/00	35	
37	Up T 20 Machine	29.04.18	20/30-21/00	03	
38	Dn BCN ES	29.04.18	22/15-02/50	43	
BRPL Sliding					
1	Dn MS/SKO/HSD IODT	24.04.18	09/20-18/00	52	
2	Dn HSD NJP	24.04.18	21/15-05/10	52	
3	Dn MS IRPN	26.04.18	05/20-17/00	52	
4	Dn LDO HACG	27.04.18	02/45-10/45	52	
5	Dn /SKO/HSD POIA	28.04.18	09/50-19/10	52	
6	Dn MS/SKO/HSD IOSD	29.04.18	06/30-16/00	52	
7	Dn NAPTHA ICB	29.04.18	20/10-05/30	52	
Platform					
1	Mail/Express/Passenger Train	23.04.18	One full day	48	
2	Goods Train	23.04.18	One full day	28	
3	Mail/Express/Passenger Train	24.04.18	One full day	46	
4	Goods Train	24.04.18	One full day	28	
5	Mail/Express/Passenger Train	25.04.18	One full day	48	
6	Goods Train	25.04.18	One full day	24	
7	Mail/Express/Passenger Train	26.04.18	One full day	42	
8	Goods Train	26.04.18	One full day	26	
9	Mail/Express/Passenger Train	27.04.18	One full day	50	
10	Goods Train	27.04.18	One full day	24	
11	Mail/Express/Passenger Train	28.04.18	One full day	47	
12	Goods Train	28.04.18	One full day	33	
13	Mail/Express/Passenger Train	29.04.18	One full day	46	
14	Goods Train	29.04.18	One full day	28	

8. **Sick line activity: -**

- I) Petty repair of Coaches.
- II) IOH of NBQ base Coaches.
- III) Petty repair of Wagons.
- IV) Trolley changing and maintaining ABCD parameters of bogie of Coaches sending from other depot under N.F.Railways .
- V) Maintenance of M&P's under C&W depot.
- VI) Record keeping and passing the same.

SN	Type	Quantity	Total
1	GS	44	69
2	WGSCZ	14	
3	SLR	3	
4	SLRD	8	
5	RCC	1	16
6	ART/ARME	13	
7	VPH	2	
Grand Total			85

9. The depot has 06 **Nos.** of ministerial staff. They work for the maintenance of staff present at the depot. Preparation of master Roll, Maintenance of sick & leave register, various correspondences for staff activities involved with the depot including material handling (store).

10. **Miscellaneous activities.**

- a) ART- Class A ART (140T BD Crane) available under C&W depot, NBQ for which manpower are deputed for maintenance activity on daily basis. During the time of call/accident more than 30 Nos staff proceed with relief train.
- b) ARME – Scale I ARME available in NBQ for which staff are deputed for maintenance of M&P on daily basis and 12 to 15 staff are proceeds in case of accident.
- c) Issue of store items – Manpower deputed for collection of materials from different store depot and subsequently issuing the same.
- d) Statistical collections – Manpower are deputed for collection the information to up keep the record of the working points under C&W depot and also interchange the information with the NBQ Workshop and keep the record .
- e) Out Station Work – Manpower deputed for break down of rolling stock, weight bridge maintenance and other activities under NBQ jurisdiction frequently to avoid mechanical detention.

10. DEPLOYMENT OF EXISTING STAFF (Category wise).

a) Carriage fitter and carriage Khalasi.

AREAS	CARRIAGE FITTER	CARRIAGE KHALASI
PIT LINE	19	01
PLAT FORM/SUBYARD,	21	03
RG BATCH	17	04
OUT STATION/TRAINING	03	02
SICKLINE.	19	04
MATERIAL COLLECTION	03	0
RCD	13	06
BRPL SIDING	13	08
FRIEGHT EXAMINATION YARD	20	10
QUALITY CONTROL(NBQS)	02	0

b) S/Cleaner

Pitline : Nil.

Platform/Sub-Yard : Nil.

RCD ; 02

Freight Yard : 01.

c) Ancillary.

Sick line : 02.

Pit Line : 05.

Freight Yard : 06.

140T BD Crane : 04

d) Supervisor :

Pit Line & Sick Line 05

Platform/ Freight Yard : 07.

ART/ARME : 02

STAFF POSITION OF C&W/NBQ UNIT

SN	CATEGORY	SCALE	G/PAY	BOS	ON ROLL
1	SSE/C&W & SE/C&W/NBQ	9300 – 34,800	4600	17	7
2	JE/C&W/NBQ	-do -	4200	6	7

3	COS	-do -	4600	1	2
4	OS/G	-do -	4200	4	4
5	Sr Clerk	5200-20,200	2800	2	-
6	Jr Clerk	-do -	1900	-	-
7	Sr Tech	-do -	4200	23	44
8	Tech Gr-I	5200-20,200	2800	62	42
9	Tech Gr-II	-do -	2400	30	26
10	Tech Gr-III	-do -	1900	25	19
11	Sr Tech (Painter)	9300 – 34,800	4200	Nil	1
12	Tech Gr-I (Painter)	5200-20,200	2800	2	Nil
13	Tech Gr-II (Painter)	-do -	2400	1	Nil
14	Tech Gr-III (Painter)	-do -	1900	Nil	1
15	Sr Tech (Welder)	9300 – 34,800	4200	1	Nil
16	Tech Gr-I (Welder)	5200-20,200	2800	3	1
17	Tech Gr-II (Welder)	-do -	2400	2	1
18	Tech Gr-III (Welder)	-do -	1900	Nil	3
19	Sr Tech (AC Driver)	9300 – 34,800	4200	1	2
20	Tech Gr-I (AC Driver).	5200-20,200	2800	2	Nil
21	Tech Gr-II (AC Driver)	-do -	2400	1	1
22	Tech Gr-III (AC Driver).	-do -	1900	Nil	1
23	Tech Gr-I (Carpenter).	5200-20,200	2800	1	Nil
24	Tech Gr-II (Carpenter)	-do -	2400	1	Nil
25	Tech Gr-III (Carpenter)	-do -	1900	Nil	1
26	Sr Tech (Crane driver)	9300 – 34,800	4200	1	2
27	Tech Gr-I (Crane driver)	5200-20,200	2800	2	Nil
28	Tech Gr-II (Crane driver)	-do -	2400	1	1
29	Tech Gr-III (Crane driver)	-do -	1900	Nil	1
30	Khalashi helper	-do -	1800	51	37
31	Safiwala & S/Cleaner	-do -	1800	3	3
TOTAL				243	207

CHAPTER - III

CRITICAL ANALYSIS AND STAFF REQUIREMENTS

I. The Work Study Team critically examined the various activities & work load of SSE/C&W/NBQ Depot.. The staff requirement for the Depot is arrived at based on the yardstick issued by Mechanical Directorate of Railway Board (norms for primary maintenance, Platform train examination and other allied activities) vide letter No.2000/M (C) /143/5 dt. 24.12.2001 & copy of Compendium of Yard Stick of Finance Branch /SE Railways(Annex-V) and on need base for miscellaneous works.

II. YARD STICK

COACHING STAFF (B.G. & M.G):

1. All Railways should gradually work to a target of 0.15 men per coach held for sick line attention except such Railways which already been operating below this level. These Railways should gradually move towards a target of 0.12 men per coach held.
2. Central, Eastern, Northern, South-Central and Western Railways are already operating at or about the level of 0.15 men per coach held. Southern, South Eastern, North Eastern and North East Frontier Railways are however carrying extra men.
3. For primary maintenance of coaches following yardsticks is recommended for BG and MG:-
 - i) For super fast and long distance trains 1.2 men/coach/day
 - ii) For other mail/Express trains 1 men/coach/day
 - iii) Passenger trains 0.8 men/coach/dayBG trains plying longer than 1500 kms and MG trains plying longer than 900 Kms are to be considered as long distance trains.
4. For secondary maintenance the staff should be provided at a scale of 50% of the staff for primary maintenance. The figure for the same would, therefore be as follows(for BG & MG)
 - i) Superfast and Long distance trains: - 0.6 men/ coach/ day.
 - ii) Other Mail and Express trains: - 0.5 men/ coach/ day.
 - iii) Passenger trains :- 0.4 men/ coach/ day
5. For washing and cleaning of Coaches following yardstick is recommended (for BG and MG).
 - i) For washing and cleaning: - :- 0.7 men/ coach cleaning/ day
 - ii) For internal dry cleaning: - 0.5 men/ coach/day.
6. The committee is conscious of the fact that the yardstick now being recommended for washing and cleaning may result in some increase in staff. This, however, is considered necessary as lack of cleanliness of coaching stock and inadequate amenity standards have been a matter of service criticism from the traveling public over the years. The yardstick, is however, Very tight to work study norms and is the barest minimum necessary.
7. Train passing examination staff should be provided depending upon the local needs. The trains should, however, be examined after they have traveled for not less than 500 km on BG and 300 km on MG.
8. The Railway should review their train examination pattern and close down the reluctant train examination stations.

WAGONS:

The following yardsticks are recommended: -

Intensive Repair Examination:

BG 70 FW unit trains	40 man hours
MG 70 FW unit trains	32 man hours (80% of BG)
Safety to run examination:	
BG	12 man hours
MG	9 man hours (80% of BG)

ROH Bogie Wagons:

20 men per ROH per day (Inclusive of LR & RG)

ROH of FW Roller Bearing Stock (CRT & IWS)

6 men per ROH per day (Inclusive of LR & RG)

Repacking of BG FW Wagons:

5.25 men per wagon per day (Inclusive of LR/RG)

Repacking of MG FW Wagon:

4.2 men per wagon per day (Inclusive of LR/RG) (80% of BG)

The staff requirement for train examination for coach Zonal Railway can be broadly based on its local wagon holding with a suitable adjustment for the rate of loading more, shall require more staff per thousand wagons than those loading less. It is assessed that generally staff employment per thousand wagon should be as per table below:

LOADING/1000 WAGONS	STAFF REQUIRED/1000 WAGONS	
	B.G	M.G
80	45.6	36.6
80-90	48.9	-
90-100	51.8	-
100-110	54.5	-
110-120	57.0	-
120-130	59.3	-

10. Similarly, the deployment of staff in sick line should be 40-men/1000 wagons for B.G. and 32-men/1000 wagons for M.G. This will be inclusive of all scheduled and unscheduled repairs except corrosion repair and panel patching for which 7 men (for BG) and 6 (for MG) per 1000 ons held may be employed.

11. The 60:40 ratio of staff between artisan and unskilled may continue unchanged. A ratio of 1:11 is recommended between supervisor and staff (skilled and unskilled both) for coaches as well as wagon maintenance.

Special Note: (A) No yardstick has been fixed for following items: -

1. Watering on pit (Ref Para 3.4.5.4). Separate staff is to be kept for this purpose.
2. Separate staff is to be provided as per necessity for train passing (passenger trains)
3. Staff calculation as per the above report includes RG and LR both.

(B) Requirement of staff for the following ancillary and odd job is not considered in the above yardstick. So, if required, staff requirement may be calculated against specific workload:

Break down

Outstation works such as attention of damaged rolling stock, collection and chasing of materials, train run etc.

Military, goods shed, transshipment siding.

Refinery siding (BHPL, ICC etc)

Authority : Railway Board's report on Manpower Productivity on the Railways.
(Mechanical Department – Open line), April'86 (for item No. 1 to 11)

12. **ROH of BOX'N' WAGONS:**

- (A) **ROH for 10 BOX'N' wagon per day** @ 125 man hours/wagon (Para-803)
(B) Other than ROH: @ 2 wagons/rake @ 5 men/wagon (Para 8.3)
(Damage/sick wagon)
(C) Indirect staff for painting etc. 10% of sick line staff (Para 8.3)

Authority: Director of Mechanical Engineer's letter No. 73/M (N)/204/2/Pt.II dt.18.10.82.

13. **Yardstick for Escorting staff on Rajdhani Express Trains:**

Supervisor	-	1
Fitter	-	1
Safaiwala	-	3

Authority: Rly. Board's letter No. 96/M(C)/141/125 dt. 09.12.96.

14. **Yardstick for Loco Inspector:**

1 link Inspector may be provided for 25 posts of Driver working on Diesel Traction.

1 Link Inspector may be provided for 50 posts of Shunters working on Diesel Traction.

Authority: Rly. Board's letter No. 82/M (L)/467/125 dt.26.09.91

15. **Maintenance of Diesel locos:**

The following Yardstick is recommended:-

- | | | |
|----|-------------|--------------|
| a) | Supervisors | 0.7 per loco |
| b) | Artisans | 3.4 per loco |
| c) | Unskilled | 2.5 per loco |

Authority: Railway Board's Report on Man Power Productivity on the Railway's
(Mech. Dept. Open line) April'86.

IV. **REQUIREMENT OF STAFF THE UNIT OF C&W/NBQ**

Name of Depot : C&W/NBQ.

Work load :

1. Pit Line
2. Train Passing.
3. Ancillary staff
4. Miscellaneous activity.

V. Man Power Calculation :

1. Primary Maintenance:-

- i) For super fast and long distance trains 1.2 men/coach
- ii) For other mail/Express trains 1 men/coach/day
- iii) Passenger trains 0.8 men/coach/day

BG trains plying longer than 1500 kms and MG trains plying longer than 900 Kms are to be considered as long distance trains.

Total staff required for Primary Maintenance:-

SN	RAKE	TYPE OF TRAINS	LOAD	NO OF RAKES	TOTAL LOAD	MAN POWER REQUIREMENT @ 0.8 men/Coach/day
1	55801 up	Passenger		1	17 X 1 = 17	66 X 0.8 = 52.8. (SAY 53)
2.	55809 up/ 55801 up(spare)	Passenger		2	17 X 2 = 34	
3.	Dn Military Spl	mixed		1	7X1=7	
4.	UP/DN Military Spl	Mixed		1	08X1=8	
TOTAL LOAD				5	66	53

2. Total staff required for sick line attention.

- a) Sick line activity –
 - Holding – 85 Wagons.
 - In FWU – 170 units.
 - Yard Stick – 32 men per 1000 wagons.
 - Hence staff required – $(32 \times 170) / 1000 = 5.4$ (SAY 6)

3. WAGONS :

No of goods trains Originates at Yard/day = 3.3 rakes/day average @ 40.36 Wagons per rakes (including BOXN ES-60 RAKES & ALL BRPL SIDINGS -52 RACKES,) i.e. total - NOS. of Wagons- $40.36 \times 3.3 = 133.188 = 134$ (say)

Total staff required for Intensive Repair Examination :

Intensive Repair Examination :

- BG 70 FW unit trains 40 man hours
- MG 70 FW unit trains 32 man hours (80 % of BG)

Safety to run examination :

- BG 12 man hours
- MG 9 man hours (80 % of BG).

Now-a-days FW is replaced by EW unit trains.

Therefore , considering the above.

SN	BG 70 EW UNIT Trains	YARD STICK considering 1.5 Multiplication factor of FW unit to convert in EW unit of trains		TOTAL MAN POWER
		Intensive Repair Examination (Considering hours – 6 hours/day)	Safety to run Examination (Considering hours – 6 hours/day)	
1	Considering 4 Rackes per day (Maximum)	60 Man hours	18 Man hours	
2	$43 \times 4/70 = 2.457$	$2.457 \times 60/6 = 24.5$ (Say 25)	$2.45 \times 18/6$ $= 7.35$ (Say 8)	
	Man power required	25 Men	8 Men	33 Men

- At present, though the Intensive Repair Examination at C&W/NBQ is not carried out by the Unit, but provision of extra staff requirement is kept for any future planning.

Total man power required for the unit is (53 + 06 + 33) = 92

At the ratio 60 : 40 of Skilled and Un- Skilled

Skilled = 55.8 (Say 56) And Un-Skilled = 37.2 .

L.R. & R.G. (20% of 56) = 11.2 . L.R. & R.G. (20% of 37.2) = 7.44 TOTAL = 18.62 (Say 19)

Total man power required including RG & LR is 93 + 19 = 112 Nos.

4. During the intensive study at the unit, a joint memorandum with SSE/C&W/NBQ(IC) regarding requirement of staff at BRPL siding inside BRPL plant, which is placed at Annex-II.

(i) SSE/C&W/NBQ(IC) informed the study team that at present, the workman strength inside the BRPL plant is 21 , including 2 nos. of supervisors and LR(12%) to carry various activities . The daily attendance of the staff is maintained at BRPL site and master roll is maintained at C&W/NBQ unit.

(ii) In view of above, the study team jointly calculated with SSE/C&W/NBQ(IC) the actual requirement of man power to carry various activities as below-

(a) Max.Nos. of rack filled per day- 2 nos.

(b) Each rack consists of 50 Wagons, the total nos. of Wagons are 100 nos.

Activity -1

(i) Opening of Blank flange cover – 4 nos/wagon

- (ii) Tightening of Master Valve - 2 nos/Wagon
- (iii) Opening of bottom Valve - 2 nos/Wagon
- (iv) Leakage test by pouring 200lts. Oil/wagon and final fit for loading
- Man power required /day for above activities is 5.5 man/day

Activity-2

Final Fit for loading

- (i) By Tightening of flange bolt, gasket, etc.
- (ii) Closing of bottom valve.
- Man power required /day for above activities is 5.5 man/day

Activity-3

Issue of non-leakage Certificate(NLC)

Inspecting Officials:

Representative of IOC, Goods clerk and Supervisory staff of C&W/NBQ from Railway side.

- Man power required /day for above activities is 2 nos. of supervisory staff and 2nos. of assisting fitter staff., i.e. 4 man/day (including two supervisory staff)

The total man power required for the above activities is 15.

LR against 15 staff strength is $15 \times 12.5 / 100 = 1.8$ (say 2)

The Total staff required at BRPL Plant is $(15+2)=17$ nos.(incl. supervisors and LR)

5. The total calculated Man power required in C&W/NBQ Unit is

1. Primary Maintenance:-	53
2. Staff required for sick line attention-	6
3. Staff required for Intensive Repair Examination and Safety run Examination- 33	
4. LR & RG Staff required against above strength-	19
<u>5. Staff Required at Filling Station of BRPL Plant(incldg. Supervisors & LR)-</u>	<u>17</u>
	128 NOS.

ON ROLL & VACANCY POSITION OF STAFF AND IDENTIFICATION OF SURPLUS POSTS

SN	CATEGORY	SCALE	G/PAY	BOS	ON ROLL	VAC	SURPLUS POSTS
1	SSE/C&W & SE/C&W/NBQ	9300 – 34,800	4600	17	7	+10	
2	JE/C&W/NBQ	-do -	4200	6	7	-1	
3	COS	-do -	4600	1	2	-1	
4	OS/G	-do -	4200	4	4	0	
5	Sr Clerk	5200-20,200	2800	2	-	+2	1
6	Jr Clerk	-do -	1900	-	-	0	
7	Sr Tech	-do -	4200	23	44	-21	
8	Tech Gr-I	5200-20,200	2800	62	42	+20	
9	Tech Gr-II	-do -	2400	30	26	+4	
10	Tech Gr-III	-do -	1900	25	19	+6	6
11	Sr Tech (Painter)	9300 – 34,800	4200	0	1	-1	
12	Tech Gr-I (Painter)	5200-20,200	2800	2	0	+2	1
13	Tech Gr-II (Painter)	-do -	2400	1	0	+1	
14	Tech Gr-III (Painter)	-do -	1900	0	1	-1	
15	Sr Tech (Welder)	9300 – 34,800	4200	1	0	+1	
16	Tech Gr-I (Welder)	5200-20,200	2800	3	1	+2	1
17	Tech Gr-II (Welder)	-do -	2400	2	1	+1	
18	Tech Gr-III (Welder)	-do -	1900	0	3	-3	
19	Sr Tech (AC Driver)	9300 – 34,800	4200	1	2	-1	
20	Tech Gr-I (AC Driver).	5200-20,200	2800	2	0	+2	1
21	Tech Gr-II (AC Driver)	-do -	2400	1	1	0	
22	Tech Gr-III (AC Driver).	-do -	1900	0	1	-1	
23	Tech Gr-I (Carpenter).	5200-20,200	2800	1	0	+1	
24	Tech Gr-II (Carpenter)	-do -	2400	1	0	+1	1
25	Tech Gr-III (Carpenter)	-do -	1900	0	1	-1	
26	Sr Tech (Crane driver)	9300 – 34,800	4200	1	2	-1	
27	Tech Gr-I (Crane driver)	5200-20,200	2800	2	0	+2	1
28	Tech Gr-II (Crane driver)	-do -	2400	1	1	0	
29	Tech Gr-III (Crane driver)	-do -	1900	0	1	-1	
30	Khalashi helper	-do -	1800	51	37	+14	12
TOTAL				243	207	36	24

- As per calculation in para -5 of Chapter-III, the required strength of staff is 128 against staff strength of 243 as per BOS out of on roll strength 207 and vacancies of 36 posts of different categories, the identified nos. of surplus posts is 24 nos.

- Though there is 3 nos.of Posts Safiwala & S/Cleaner are manned posts , this posts is listed under obsolete Category (circular is placed at Annex-III) . Moreover , the redundancy of work load of this category is caused due to engagement of out-agencies vide- C.A No-ME20160015 dt-24.10.16 valid upto 21.06.2019 (Placed at Annex-IV). Therefore , proposed for re-deployment of on roll staff of Safiwala & S/Cleaner category.

Thus, the study team has proposed to surrender the identified 24 nos. of vacant surplus posts and those may be deleted from the working BOS of the concerned unit.

CHAPTER-IV

RECOMMENDATION

The study team has identified total 24 nos. of vacant Posts different categories (Sr.Clerk- 1, Tech Gr-III - 6, Tech Gr-I (Painter) -1, Tech Gr-I (Welder) - 1 Tech Gr-I (AC Driver) -1, Tech Gr-II (Carpenter) - 1, Tech Gr-I (Crane driver) -1, Khalashi helper-12) as surplus and proposed for surrender.

CHAPTER-V
FINANCIAL IMPLICATION

EXPENDITURE / FINANCIAL SAVINGS PER ANNUM

5.0. The calculation of total expenditure Grade-wise is furnished below-

SN	Category	Pay Band	G/Pay	Basic Pay in Rs	Revised Pay as per 7 th CPC	Salary per annum in INR	Nos of posts proposed for surrender	Total amount in Rs
1	Sr.Clerk/G	5200-20200	2800	15,500	39,835	4,78,020	1	4,78,020
2	Tech Gr-III	5200-20200	1900	14,600	37,522	4,50,264	6	27,01,584
3	Tech Gr-I (Painter)	5200-20,200	2800	15,500	39,835	4,78,020	1	4,78,020
4	Tech Gr-I (Welder)	5200-20,200	2800	15,500	39,835	4,78,020	1	4,78,020
5	Tech Gr-I (AC Driver).	5200-20,200	2800	15,500	39,835	4,78,020	1	4,78,020
6	Tech Gr-II (Carpenter)	5200-20,200	2400	15,100	38,807	4,65,684	1	4,65,684
7	Tech Gr-I (Crane driver)	5200-20,200	2800	15,500	39,835	4,78,020	1	4,78,020
8	Khalashi helper	5200-20,200	1800	14,500	37,265	4,47,180	12	53,66,160
	TOTAL						24	Rs 1,09,23,528 109.23 Lakh

6.0. PROJECTED FINANCIAL SAVINGS PER ANNUM :

If the recommendation of this study be implemented, the financial savings per annum will be Rs. 109.23 Lakhs (say) per annum.

CHAPTER - VI

6.0. READY RECKONER

	Mean pay	GP	Basic Pay in	M.F. of 7th	Salary per
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Pay Band			Rs	CPC(2.57) & revised Pay	annum in INR
9300-34800	22050	4200	26,250	67,462.5	809,550
5200-20200	12700	2800	15,500	39,835	478,020
5200-20200	12700	2400	15,100	38,807	465,684
5200-20200	12700	1900	14,600	37,522	450,264
5200-20200	12700	1800	14,500	37,265	447,180