

WORK STUDY

ON

REVIEW OF STAFF STRENGTH

OF

NARROW GUAGE (ALL DEPARTMENT)

UNDER

VADODARA DIVISION

> Central Planning Organization Headquarter Office, Churchgate, Mumbai-20.

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EXECUTIVE SUMMARY

Serial No. - 03

Study No. - WR/WS-03/2019-20

Case No. - G.463/WR/WS-03/2019-20

Subject - Review of staff strength of all department of

Narrow Gauge (NG) section under Vadodara

(BRC) Division.

Area - Vadodara

Division - Vadodara

Department - All

Authority - AGM-CCG's approval letter No.G.463/3/Vol.IV

dated 08.04.2019

Terms of Reference - To identify the actual requirement of staff strength

corresponding to arising/existing work load of Narrow Gauge (NG) section of all departments

under BRC Division.

No. of Recommendations - 6 (Six)

Summary of Recommendation - Page 6

Projected Manpower :

Sr.	Cotogory	Sanctioned	Man	Proposed	Post Ider	ntified for	Surrender
No.	Category	Cadre	on Roll	cadre	Total	Vacant	Live
1	Group C	93	61	51	42	32	10
2.	Group D	46	38	32	14	8	6
	Total	139	99	83	56	40	16

Financial Implication - Recurring Savings of Rs. **512.00 Lakhs**

(approx.) per annum.

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ACKNOWLEDGEMENT

The work study team of the Central Planning Organization Western Railway, Headquarter Office, Churchgate wishes to express their gratitude to all staff of Narrow gauge Section of BRC Division for their whole hearted co-operation for providing required data and suggestion for conducting and finalizing the work study of staff strength of all department of Narrow gauge (NG) section under BRC Division

TERMS OF REFERENCE

As per Annual Programme of work studies for the year 2019-20, approved by AGM/CCG on file No. G 463/3/IV dated 08.04.2019, the work study on review of staff strength of all department of Narrow gauge (NG) section under BRC Division has been undertaken during financial year 2019-20 for assessment of man power requirement corresponding to arising/existing work load.

METHODOLOGY

Collection of data required for conducting the study Sanctioned cadre, Deployment of staff strength, failure rates and related workload. Observation of area wise and activity wise working system. Critical Analysis of data collected, existing staff strength, deployment, quantum and frequency of work load arising. Discussion with concerned officers and supervisors in regard to work load arising and actual requirement of staff. Consideration of suggestions and guidelines given by supervisors and other staff. of man power requirement corresponding to arising Assessment work load on need base. Identification of surplus posts available over and above the need based requirement. Finalization of work study report with necessary recommendations for implementation.

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SUMMARY OF RECOMMENDATIONS

Recommendation No.

Para No.

Recommendation No. 1

2.1.4

In view of the above, work study team recommended that one post of Safaiwala <u>Commercial department</u> is recommended for surrender. As per recent Rly Boards policy, the cleanliness activities are to be outsourced.

Recommendation No. 2

2.2.5

In view of the above, work study team recommended that 9 posts of SSE/Tech./Khalasi of <u>Electrical department</u> are justified and 10 posts of Tech/Khalasi of <u>Electrical department</u> are recommended for surrender.

Recommendation No. 3

2.4.5

In view of the above, work study team recommended that 39 posts of SSE/Tech./Khalasi of NG-DLS Shed /PRTN of Mechanical department are justified and 35 posts of SSE/Tech./Khalasi of NG-DLS Shed /PRTN of Mechanical department are recommended for surrender

Recommendation No. 4

2.5.5

In view of the above, work study team recommended that 16 posts of SSE/Tech./Khalasi of NG-DLS Shed /Daboi, operated at MYG of Mechanical department are justified and 1 post of Tech. of NG-DLS Shed /Daboi, operated at MYG of Mechanical department is recommended for surrender.

Recommendation No. 5

2.6.5

In view of the above, work study team recommended that 10 posts of SSE/Tech./Khalasi of NG C&W Depot - Daboi, operated at MYG of Mechanical department are justified and 8 posts of Tech./Khalasi of NG C&W Depot - Daboi, operated at MYG of Mechanical department are recommended for surrender.

Recommendation No. 6

2.7.5

In view of the above, work study team recommended that 9 posts of SM/Pointsman of Operating department are justified. Thus, one post of cook of Operating department is not justified and recommended for surrender.

CHAPTER-I

INTRODUCTION:

1.0 **General**

- 1.1 Indian Railways holds the status of being a premier Transport Service provided to the nation. It is entrusted with the responsibility of carrying the Passenger Traffic across the length and breadth of the country, serving national interest with a social centric objective in spite of the demanding task of remaining financially viable. The organization has been successful lending impetus to the nation's economic and industrial progress on the strength of the sustained approach towards technology Upgradation of infrastructure.
- 1.2 Continuous updating and designing of job description, reduction of 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 assess requirement of Man power.
- 1.3 Man power is the biggest component of the expenditure of Indian Railways. Rightsizing of man power to reduce unit cost is an effective way to increase efficiency of Indian Railways.
- 1.4 Keeping the above said objective in view, competent authority has desired to review the working of Narrow Gauge (NG) sections of BRC Division of Western Railway. The Work Study Cell has conducted above Work Study of NG Sections of BRC Division.

1.5 Narrow Gauge Sections of BRC – Division are as follows:-

Section	KMs	UP Trains	DN Trains	
Bharuch – Jambusar -	73.39	-	-	Suspended
Kavi				
Kosamba- Umarpada	61.96	-	-	Suspended
Malsar – Miyagam	37.86	4	4	Working
Karjan				
Miyagam Karjan –	49.21	-	-	Closed for BG
Dabhoi - Chandod				Conversion
Choranda – Motikoral	18.45	2	2	Working
Jambusar- Pratapnagar	51.25	2	2	Working
Chhuchhapura –	51.25	-	-	Suspended
Tankhala				
Nadiad -Bhadran	59.76	-	-	Suspended
Dabhoi – Timba Road	100.35	-	-	Suspended
Jhagadiya - Netrang	27.21	-	-	Suspended
Total	496.18	8	8	

Total 107.56 KMs are presently in working.

- 1.6 Manpower for Narrow Gauge (NG) section of BRC Division :-
- 1.6.1 For Accounts Dept., Engg. Dept, Medical Dept, Personnel Dept, S&T Dept, and Stores Dept., No separate staff for Narrow Gauge (NG) activities is available.
- 1.6.2 Separate Staff is available for Commercial Dept, Electrical Dept, Mechanical Dept, & Operating Dept. The details are as follows:-

Sr. No.	Category	Sanctioned Cadre	Man on Roll	Vacancy
A.	Commercial Dept.	01	0	01
B.	Electrical Dept.	19	09	10
C.	Mechanical Dept.	109	80	29
D.	Operating Dept.	10	10	0
	Grand Total	139	99	40

1.6.3 This work study is limited to Commercial Dept, Electrical Dept, Mechanical Dept, & Operating Dept., where man power is available.

1.6.4 **Appling Yard Stick**:

There has been vast change in working pattern due to introduction of modern and innovative technology and outsourcing activities, therefore, the yard stick in many cases is redundant and is not useful in present scenario. Work study team noticed that work load of Narrow Gauge (NG) Sections of BRC division is reduced day by day due to conversion of Narrow Gauge into Broad Gauge.

The available yard stick is very old and there are more changes in working pattern. *Hence, this work study is conducted on the basis of need base requirement and outsourcing of activities, if any.* So, the man power is provided *on the need base* and accordingly the provision are made.

1.7 An item has been made in forth coming chapter to analyze each aspect of workload and requirement of man power.

CHAPTER - II

2.0 Analysis of work load and staff strength of all department of NG section under BRC

In BRC Division, presently, there are 10 narrow gauge sections. Out of which Only 3 sections are in Working Condition. These 3 sections have 107.56 KMs. Rest 7 Sections are suspended and staffs of these sections are transferred or are under transferring process to other places. So, the cadre of Narrow gauge staff are became surplus, hence this study of Narrow Gauge sections of BRC division is conducted to identify surplus staff and recommends to surrender or redeploy.

2.1 Commercial Department :-

2.1.1 <u>Sanctioned cadre</u> of Commercial Department of NG section :-

Sr.	Category	Sanctioned	Man on Roll	Vacancy
No.		Cadre		
1	Group C	0	0	0
2.	Group D	1	0	1
	Total	1	0	1

- 2.1.2 Present, Sanctioned cadre of Commercial Department of NG section is 1 post only. The post of Safaiwala available at Chorand (CRND) Station is lying vacant since long. Thus, the post of Safaiwala is recommended for surrender. As per recent Rly Boards policy, the cleanliness activities are to be outsourced.
- 2.1.3 As such, one post of safaiwala of <u>Commercial department</u> may be surrender immediately.

2.1.4 Recommendation No. 1

In view of the above, work study team recommended that one post of Safaiwala <u>Commercial department</u> is recommended for surrender. As per recent Rly Boards policy, the cleanliness activities are to be outsourced.

2.2 **Electrical Department**:-

In BRC Division, one NG Workshop is available at PRTN. NG Workshop – PRTN is situated near PRTN Rly Station. This NG Workshop – PRTN is working in General Shift i.e. 08 to 17 Hrs. This NG Workshop–PRTN is meant for repairing & maintenance of the NG Coaches i.e. POH maintenance.

2.2.1 <u>Sanctioned Cadre</u>, Man on Roll, Vacancy position of staff of <u>Electrical</u> <u>department</u> deployed at NG Workshop – PRTN is as under :-

Sr.	Category	Sanctioned	Man on Roll	Vacancy
No.		Cadre		
1	Group C	15	7	8
2.	Group D	4	2	2
	Total	19	9	10

2.2.2 Present Deployment of staff & working in brief:

Presently, 6 Technician & 2 Khalasi are deployed for NG Workshop – PRTN.

	1 7			
1 SSE	Overall In charge of NG Workshop – PRTN.			
6 Technician	General Shift (i.e 08 to 17 Hours)			
	2 Tech for Sick Line working			
	1 Tech for TL Upper Frame working			
	1 Tech for TL Under Frame working			
	1 Tech for Battery			
	1 Tech working as RG/LR			
2 Khalasi	General Shift (i.e 08 to 17 Hours)			
	1 Khalasi for TL Upper Frame working			
	1 Khalasi for TL Under Frame working			
9	Total			

2.2.3 <u>Workload</u>: NG Workshop – PRTN is old Narrow Gauge Workshop. NG Workshop – PRTN is doing POH of NG Coaches, which includes Upper Frame items like fans, switches, lamps wiring etc., Under frame items like alternator safety chain panel etc., Office work like maintaining Telly book, indents, office record, correspondence with CWM office etc. NG Workshop – PRTN's work is carried out in General Shift only.

Coach Out Turn of NG Workshop - PRTN for last three years :-

For last three years, POH of average 2 Coaches per month is done at NG Workshop – PRTN. Thus, for 2 Coaches of POH, 1 SSE, 4 Technician & 4 Khalasi, total 9 staff are sufficient.

2.2.4 Critical Analysis

After critical analysis of present & arising workload, the work study team justifies, 9 posts of SSE/Tech./Khalasi of Electrical department for present workload *on need base requirement* for NG Workshop – PRTN, against sanctioned cadre of 19 posts of SSE/Tech./Khalasi and thereby 10 posts of Tech/Khalasi are found excess to the requirement and recommended for surrender.

2.2.5 Recommendation No. 2

In view of the above, work study team recommended that 9 posts of SSE/Tech./Khalasi of <u>Electrical department</u> are justified and 10 posts of Tech/Khalasi of Electrical department are recommended for surrender.

2.3 Mechanical Department:-

In BRC Division, 2 NG Diesel Shed & 1 NG C&W Depot are available in Narrow Gauge Section. The details are as follows:-

- a. Diesel Shed Pratapnagar (PRTN)
- b. Diesel Shed Daboi (DB)
- c. C&W Depot Daboi (DB)

2.4 NG Diesel Shed - Pratapnagar (PRTN) :-

Presently, Narrow Gauge Diesel Shed PRTN is maintaining the schedule of narrow gauge locomotives of Western Railway. NG Diesel Shed - PRTN is maintaining Narrow Gauge Locomotives of ZWM-5 with GI schedule, T schedule, M schedule, Quarterly schedule, Half yearly schedule, M-24 yearly schedule, M-48 2 yearly schedule and M-72, 3 yearly schedule round the year and if need be they were also attending other railways narrow gauge locomotives. All staffs of NG Diesel Shed - PRTN are under the administrative control of Sr. DME/BRC.

2.4.1 **Cadre** position of Supervisory and maintenance staff of NG-DLS Shed /PRTN

Sr.	Category	Sanctioned	Man on Roll	Vacancy
No.		Cadre		
1	Group C	55	39	16
2.	Group D	19	13	06
	Total	74	52	22

2.4.2 Present Deployment of staff :-

Presently following staff is available at NG Diesel Shed – PRTN.

1 SSE(Loco)	Overall In charge of NG Diesel Shed – PRTN.
2 COS/OS	For Clerical Work
36 Technician	For maintaining Narrow Gauge Locomotives of ZWM-5 with
and	GI schedule, T schedule, M schedule, Quarterly schedule,
13 Khalasi	Half yearly schedule, M-24 yearly schedule, M-48 2 yearly
	schedule and M-72, 3 yearly schedule round the year
52	Total

2.4.3 <u>Workload</u>: In BRC, 26 NG Locos were available in NG Diesel Shed – PRTN. One SPARMV/ARTV is also available in Diesel Shed – PRTN. Our of these 26 Locos, 8 Locos had been transfer to Different Railways for heritage, preservation, 3 Locos had been stop, after closing of MYG section, 4 Locos had been stop, after closing of JMB section and 3 Locos had been stop, after closing of BIM section.

Thus, presently, 6 Locos are available in Diesel Shed – PRTN. One SPARMV/ARTV is also available in Diesel Shed – PRTN.

Requirement of staff, as per Bench Marking,

- (i) Required staff for 6 Locos (ZDM-5) is $6 \times 3.25 = 19.5 \text{ say } 20$
- (ii) Required staff for 1SPARMV/ARTV is 1 X 7.0 = 7
- (iii) Required staff for emergency work is 5
- (iii) LR $32 \times 20\% = 6.4 \text{ Say } 7$

Thus, Total requirement is 20 + 7 + 5 + 7 = 39

2.4.4 **Critical Analysis**

After critical analysis of present & arising workload, the work study team justifies, 39 posts of SSE/Tech./Khalasi for present workload **on need base requirement** for NG Diesel Shed – PRTN, against sanctioned cadre of 74 posts of SSE/Tech./Khalasi and thereby 35 posts of Tech/Khalasi are found excess to the requirement and recommended for surrender.

2.4.5 Recommendation No. 3

In view of the above, work study team recommended that 39 posts of SSE/Tech./Khalasi of NG-DLS Shed /PRTN of Mechanical department are justified and 35 posts of SSE/Tech./Khalasi of NG-DLS Shed /PRTN of Mechanical department are recommended for surrender.

2.5 <u>Diesel Shed – Daboi (DB), Operated at MYG</u>

Presently, Narrow Gauge Diesel Shed Daboi is closed and staff of Narrow Gauge Diesel Shed Daboi is transferred at Miyagam Karjan (MYG). Presently, 4 Locos are running at Miyagam Karjan (MYG). MYG is maintaining Narrow Gauge Locomotives of ZWM-5 with GI schedule, Trip schedule, M schedule, Quarterly schedule, Half yearly schedule, M-24 yearly schedule, M-48 2 yearly schedule and M-72, 3 yearly schedule round the year. All staffs of NG Diesel Shed –DB PRTN are under the administrative control of Sr. DME/BRC.

2.5.1 <u>Cadre position</u> of Supervisory and maintenance staff of NG-DLS Shed /DB operated at MYG:

Sr.	Category	Sanctioned	Man on Roll	Vacancy
No.		Cadre		
1	Group C	13	9	4
2.	Group D	4	4	0
	Total	17	13	4

2.5.2 Present Deployment of staff :-

Presently following staff of NG Diesel Shed – DB is operated at MYG.

1 SSE(Loco)	Overall In charge of NG Diesel Shed – DB @ MYG
12 Technician	For maintaining 4 Narrow Gauge Locomotives of ZWM-5
and	with GI schedule, T schedule, M schedule, Quarterly
4 Khalasi	schedule, Half yearly schedule, M-24 yearly schedule, M-48
	2 yearly schedule and M-72, 3 yearly schedule round the
	year
17	Total

2.5.3 <u>Workload</u>: - Presently, 4 Locos are available at MYG of NG Diesel Shed – Daboi.

Requirement of staff, as per Bench Marking,

- (i) Required staff for 4 Locos (ZDM-5) is 4 X 3.25 = 13
- (iii) LR $13 \times 20\% = 2.6 \text{ Say } 3$

Thus, Total requirement is 13 + 3 = 16

2.5.4 **Critical Analysis**

After critical analysis of present & arising workload, the work study team justifies, 16 posts of SSE/Tech./Khalasi for present workload **on need base requirement** for NG Diesel Shed work at MYG, against sanctioned cadre of 17 posts of SSE/Tech./Khalasi and thereby 1 posts of Tech is found excess to the requirement and recommended for surrender.

2.5.5 Recommendation No. 4

In view of the above, work study team recommended that 16 posts of SSE/Tech./Khalasi of NG-DLS Shed /Daboi, operated at MYG of Mechanical department are justified and 1 post of Tech. of NG-DLS Shed /Daboi, operated at MYG of Mechanical department is recommended for surrender.

2.6 NG C&W Depot - Daboi (DB), Operated at MYG

2.6.1 <u>Cadre</u> position of Supervisory and maintenance staff of NG C&W Depot – Daboi, operated at MYG

Sr.	Category	Sanctioned	Man on Roll	Vacancy
No.		Cadre		
1	Group C	9	5	4
2.	Group D	9	10	-1
	Total	18	15	3

.6.2 Present Deployment of staff :-

Presently following staff of NG C&W Depot – DB is operated at MYG.

1 SSE(C&W)	Overall In charge of NG Diesel Shed – DB @ MYG
4 Technician and 10 Khalasi	For Train Duty, Primary maintenance at Pit line, Repair of coaches at sick line and other allied works.
15	Total

2.6.3 **Workload**: Presently, 4 rakes of train are available at MYG for Train Duty Primary maintenance at Pit line, Repair of coaches at sick line and other allied works, for which staff of NG C&W Depot – Daboi is utilised. At MYG, the out turn is 2 rakes/per day.

Thus, for 2 Rakes Requirement of staff is as follows,

- (i) For Train Duty Work and other allied works :-1 Supervisor, 1 Technician & 2 Khalasi = 4
- (ii) For Primary maintenance work at Pit line and Repair of coaches at sick line:-

1 Technician & 3 Khalasi = 4

(iii) LR $8 \times 20\% = 1.6 \text{ Say } 2$

Thus, Total requirement is 4 + 4 + 2 = 10

2.6.4 **Critical Analysis**

After critical analysis of present & arising workload, the work study team justifies, 10 posts of SSE/Tech./Khalasi for present workload **on need base requirement** for NG C&W Depot work at MYG, against sanctioned cadre of 18 posts of SSE/Tech./Khalasi and thereby 8 posts of Tech/Khalasi are found excess to the requirement and recommended for surrender.

2.6.5 Recommendation No. 5

In view of the above, work study team recommended that 10 posts of SSE/Tech./Khalasi of NG C&W Depot - Daboi, operated at MYG of Mechanical department are justified and 8 posts of Tech./Khalasi of NG C&W Depot - Daboi, operated at MYG of Mechanical department are recommended for surrender.

2.7 **Operating Department**

2.7.1 <u>Sanctioned Cadre</u>, Man on Roll, Vacancy position of staff of <u>Operating</u> <u>department</u> is as follows:-

Sr.	Category	Sanctioned Cadre	Man on Roll	Vacancy
No.				,
1	Group C	1	1	0
2.	Group D	9	9	0
	Total	10	10	0

2.7.2 **Present deployment** is as under:-

Sr. No.	Station	Cadre	MOR	Deployment
1	Choranda Jn.	SM -1,	SM -1,	SM in Broken C
		Pointsman-4	Pointsman-4	Roster & Pointsman
				in broken El Roster
2	Motikoral	Pointsman-1	Pointsman-1	Pointsman in broken
				El Roster
3	Malsar	Pointsman-1	Pointsman-1	Pointsman in broken
				El Roster
4	Jambusar	Pointsman-1	Pointsman-1	Pointsman & Cook in
		Cook -1	Cook -1	broken El Roster
	Total	10	10	

2.7.3 Present Workload of Operating Department of NG section of BRC- Disision.

Narrow Gauge sanctions	KMs	UP	DN Trains	
of BRC Divn.		Trains		
Malsar – Miyagam Karjan	37.86	4	4	Working
Choranda – Motikoral	18.45	2	2	Working
Jambusar- Pratapnagar	51.25	2	2	Working
Total	107.56			

Presently, there are 10 narrow gauge sections. Out of which Only 3 sections are in Working Condition. These 3 sections have 107.56 KMs. Rest of the 7 sections are suspended, till further order. Thus, as such existing deployment of 01 SM and 08 Pointsman are justified. 01 post of cook is not justified and recommended for surrender immediately.

2.7.4 Thus, Operating department for 3 working sections of NG, the present deployment of 9 posts (01 SM and 08 Pointsman) of are justified, Thus, one post of cook is not justified and recommended for surrender immediately.

2.7.5 Recommendation No. 6

In view of the above, work study team recommended that 9 posts of SM/Pointsman of Operating department are justified. Thus, one post of cook of Operating department is not justified and recommended for surrender.

2.8 The Summary of Existing and Proposed Gr. 'C' & 'D' staff of Narrow Gauge (NG) sections staff of all department under Vadodara Division:-

Department / Category	Sanctioned Cadre	On Roll	Vacancy	Proposed	Proposed for Surrender	Refer Para
A. Commercial						
Gr. C	0	0	0	0	0	
Gr. D	1	0	1	0	1	2.1.3
Total	1	0	1	0	1	
B. Electrical						
Gr. C	15	7	8	7	8	
Gr. D	4	2	2	2	2	2.2.5
Total	19	9	10	9	10	
C. Mechanical						
(a) Diesel Shed -PRTN						
Gr. C	55	39	16	26	29	
Gr. D	19	13	6	13	6	2.4.5
Total	74	52	22	39	35	
(b) Diesel Shed -DB @ MYG						
Gr. C	13	9	4	12	1	
Gr. D	4	4	0	4	0	2.5.5
Total	17	13	4	16	1	
(c) C&W Depot - DB @ @ MYG						
Gr. C	9	5	4	5	4	
Gr. D	9	10	-1	5	4	2.6.5
Total	18	15	3	10	8	
(d) Total of Mechanical						
Gr. C	77	53	24	43	34	
Gr. D	32	27	5	22	10	
Total	109	80	29	65	44	
D. Operating						
Gr. C	1	1	0	1	0	
Gr. D	9	9	0	8	1	2.7.5
Total	10	10	0	9	1	
E. <u>Total - All</u> <u>Department</u>						
Gr. C	93	61	32	51	42	
Gr. D	46	38	8	32	14	
Total	139	99	40	83	56	

CHAPTER-III

FINANCIAL IMPLICATIONS

- 3.1 After critical analysis of present workload of staff of Narrow Gauge (NG) sections of all departments under Vadodara Division, the work study team proposes 83 posts (51 Group-C and 32 Group-D) against the sanctioned cadre of 139 posts (93 Group C & 46 Group D), where as 56 posts (42 Group C & 14 Group D) are identified as surplus to the requirement and recommended for surrender immediately.
- 3.2. On implication of the study report and on surrendering above mentioned surplus posts annual recurring saving will be achieved as tabulated below:

Category	No. of Surplus posts	Average cost per Employee	Annual saving in Rs.
Group-C	42	Rs.10,03,714	Rs. 4,21,55,988
Group -D	14	RS.6,45,968	Rs. 90,43,553
Total	56		Rs. 5,11,99,540

3.3 The annual recurring saving due to surrender of 56 posts of Narrow Gauge (NG) sections of all departments under Vadodara division will be **Rs. 512.00 Lakhs (approx).**

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