

EASTERN RAILWAY

**WORK STUDY REPORT
ON
REVIEW OF STAFF STRENGTH VIS-À-VIS WORKLOAD OF WATCHMAN,
KH/HELPER, FIELDMAN, MALI AND SAFAIWALA IN WORKS UNITS
UNDER ENGINEERING DEPARTMENT OVER SDAH DIVISION**

(STUDY NO.WSER-20/18-19)

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TERMS OF REFERENCE

The subject work-study has been conducted based on the following terms of references –

- i) Existing sanctioned strength and MOR of Watch Man, Kh/Helper, Field Man, Mali & Safaiwala.
- ii) Activities of the specific categories of Watch Man, Kh/Helper, Field Man, Mali & Safaiwala.
- iii) Need based requirement of Watch Man, Kh/Helper, Field Man, Mali & Safaiwala based on change in working scenario.
- iv) Activities outsourced.

METHODOLOGY

In conducting the subject work study, the study team has applied the following methodology.

- i) The study team recorded the existing system of working in each section.
- ii) A threadbare discussion was made with the supervisors and staff concerned.
- iii) Critically analyzed the deployment of staff against existing workload.

SUMMARY OF RECOMMENDATION

Summarizing the proposed requirement, it is recommended that 21 posts consist of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala should be rendered as surplus from the existing sanctioned strength of Works wings in Engineering Department of SDAH division.

CHAPTER-I

1.0 Introduction:

- 1.1 The subject work study undertaken by the GM's Efficiency Cell was not included in the list of programmed work studies during the year 2018-2019. The study has been undertaken in the 4th quarter of 2018-2019 based on the position collected by the study team during pilot study in connection with the status of staff strength of diminishing categories. This time, a pocket of surplus posts pertaining to diminishing categories of staff namely Watch Man, Kh/Helper, Field Man, Mali & Safaiwala deployed at Engineering Works units over SDAH division have been arrested by the study team of GM's Efficiency Cell and the concerned authority is fully convinced with the justification of surplus of such posts raised by the study team during the study period.

In view of above, it is to mention here that the main target of conducting the subject work study is to justifiably curtail the staff strength of diminishing category of staff like Watch Man, Kh/Helper, Field Man, Mali & Safaiwala deployed at Engineering Works units over SDAH division.

- 1.2 As the main objective of Indian Railway is to improve the operating Ratio of railway, the GM's Efficiency Cell always pays attention to curtail manpower from different wings of different departments that are found excess in all respect based on the justification drawn by the study team during period of physical observation and as a result, the productivity is increased by decreasing the inputs i.e. by surrendering the excess manpower. Thus, the financial savings achieved due to surrender of manpower would obviously improve the operating ratio of E. Rly.
- 1.3 Indian Railway is facing tremendous financial crunch after implementation of 7th Pay Commission. Operating ratio is gradually increasing. Though Indian Railway is not a business organization but to survive, it is always essential to make the organization in profit i.e. operating ratio should be less than 100. The "Operating Ratios" from 2014-15 to 2018-19 shown in the corporate plan booklet published by the Eastern Railway are given below –

2014-2015	177.27%
2015-2016	180.75%
2016-2017	165.25%
2017-2018	181.15%
2018-19 (Proposed)	168.66%

As a result, Railway Board is paying more attention to the concept of rightsizing of manpower to achieve an optimum level of productivity in the Zonal Railways keeping the revised concept of modernization in view.

- 1.4 In view of the above, Rly Board issued nos. of circulars, orders, etc to minimize expenses and increase earnings to Zonal Railways to achieve better Operating Ratio. The Zonal Railways also implement various measures for financial discipline.

At this juncture, the role of Railway Efficiency & Research Directorate is also very important in connection with the productivity without hampering normal progress and

activity by eliminating diminishing categories/redundant activities, etc. The Railway has also invested huge amount in capital expenditure to improve its infrastructure by adopting new technology time to time.

- 1.5 The prime aim of conducting the subject work study is to assess **the revised requirement of Watch Man, Kh/Helper, Field Man, Mali & Safaiwala in Engineering Department over SDAH division consequent upon the changed scenario in activities of these categories.** The subject work-study has been undertaken by GM's Efficiency Cell/E.Rly during the current financial year 2018-2019 to improve the productivity index of the Railway.

CHAPTER-II

2.0 EXISTING SCENARIO & CRITICAL ANALYSIS:

2.1 Indian Railway system is one of the largest railway systems in the world under a single management having over 63000 routes Km and about 1.1 lakh track kilometers. Volume of traffic moved & its relatively low cost to common man makes Indian Railway the prime mover of the nation.

Civil Engineering department or commonly known as Engineering department of the Railways specifically performs or holds responsibility of the following three different kinds of works.

- i) To upkeep the railway track under the supervision of PWI or Sr. Section Engineer (P Way)
- ii) To upkeep the building, sewage, water system etc under the supervision of IOW or Sr. Section Engineer (Works).
- iii) To upkeep the bridges under the supervision of BRI or Sr. Section Engineer (Bridge).

2.2 The main activities of Works units are to upkeep the service building, staff quarter, Railway colony road, drain, Pipe line, Water Installations, Rly Bridge excluding steel structure, track structure, sewages and water supply system etc. It is pertinent to say that at present major repairing works are carried out by the contractual agencies. Departmental staffs are responsible for the patch repairing works or small repairing works.

All the Works units are under the overall control of Sr.DEN/Co-Ord and under direct supervision of concerned DEN & AEN in divisional level. Each Works unit is functioning directly under SSE/Works in regard to maintenance of different activities mentioned above obeying of safety rules.

The maintenance works under engineering department over SDAH division are being made mainly in the following sections:

Sealdah North and Main Section:

- i) SDAH-KNJ and covering Ranaghat to Gede, Shantipur, Bangaon
- ii) SDAH-DKAE
- iii) SDAH-Bangaon and also covering Barasat to Hasnabad

Sealdah South Section:

- i) SDAH-Diamond Harbour, Lakshmikantapur, Namkhana, Canning and Budge Budge.
- ii) Circular Railway up to Majerhat.

2.3 There are total 17 Works units (including Water Works) in Sealdah division out of which three units i.e. W/KPA, E/KPA and WS/KPA are under the administrative control of the CWM/KPA.

2.3.1 Total workload in terms of ITKM catered by 14 IOW units is 2870.818. The ITKM of three units under AEN-I/KPA i.e. W/KPA, E/KPA & WS/KPA is 784.60.

The workload in terms of ITKM (Integrated Track Kilometer) of 17 works unit under SDAH division is appended below:

Sl. No.	Works Units	ITKM
1	SDAH	346.029
2	NKG	125.437
3	CP	367.395
4	BP	187.417
5	NH	149.962
6	L/KPA	100.173
7	RHA	183.474
8	KNJ	204.411
9	BEB	115.571
10	BT	241.225
11	BNJ	178.01
12	BLN	251.39
13	SPR	331.856
14	NAP	88.468
15	SSE/WEST/KPA	784.6
16	SSE/East/KPA	
17	SSE/WS/KPA	
TOTAL		3655.418

2.3.2 Presently major repairing works under IOW units have already been given to private agency. Now this contractual work has been processed through special work and yearly contract basis i.e. zonal work. The store function under each IOW unit has also been reduced due to larger amount of contractual work. Existing staff are deployed to

cater the small/petty repairing works based on the complaints registered by staff. The following items of works are generally maintained by the Works units under Engineering Department

- i) Building (Service & Residential)
- ii) Major/Minor Bridge
- iii) FOB/ROB/RUB
- iv) Water treatment plant
- v) Surface drainage (Service building & Colonies)
- vi) Underground drainage (Service building & Colonies)
- vii) Road area (Service building & Colonies)
- viii) PF(covered & uncovered)
- ix) Pipeline (Service building & Colonies)
- x) Pumping installation (Service building & Colonies)

2.4 The study team has conducted the subject work study on the activities performed by the categories such as Watch Man, Kh/helper, Safaiwala, Field Man and Mali in engineering department over SDAH division as because the activities of these categories have become redundant due to change in scenario in working condition.

2.4.1 Unit wise sanctioned and men on roll position of the above categories are tabulated below-

[illegible]

IOW/WS/KPA	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
IOW/KNJ	2	2	0	4	4	0	4	3	1	0	0	0	0	0	0
IOW/BEB	3	3	0	6	6	0	3	2	1	0	0	0	0	0	0
IOW/RHA	2	2	0	5	5	0	1	1	0	0	0	0	0	0	0
Sub-Total	38	36	2	118	111	7	37	27	10	1	0	1	20	19	1

2.5 Major complaints faced by the IOW units over SDAH division in connection with the maintenance of Railway assets are of common nature. Accordingly departmental staff is booked to comply the same on urgent basis.

The following major complaints are as under:

- i) Life of staff quarter/service building is more than 50 years and roof of the building is jack arch with lime concrete terracing. Almost main complaint received from occupants of staff quarter due to leakage of building as well as service building.
- ii) Some Railway station platform is very low due to insertion of PSC concrete sleeper. Hence these stations have to raise the Platform height for the safety of passenger.
- iii) Repair of damaged doors & windows of staff quarters/service buildings.
- iv) Repair of damage pipeline, replacement of corroded distribution pipeline including fittings.
- v) Repair of drainage system.
- vi) Repair of floor, wall, ceiling etc.

2.5.1 The contractual work under IOW units over SDAH division is of three types viz. (i) capital work, (ii) special work & (iii) zonal work. All new types of project are under the capital work and it is processed through works programme. Similarly special and zonal works are executed in connection with the maintenance of existing Railway asset through revenue expenditure.

2.6 CRITICAL ANALYSIS AND RECOMMENDATIONS:

2.6.1 The different stages of operation and activities involved in different IOW units over Sealdah division in connection with the construction of new asset as well as maintenance of existing railway assets have been observed by the study team. The proposed requirement of specific categories mentioned earlier under IOW units over SDAH division have been critically analyzed on the basis of existing workload and present working scenario.

2.6.2 Out of 17 IOW units, 14 units are under Sr. DEN/CO-ord/SDAH and rest 3 units viz. IOW/East/KPA, IOW/West/KPA & IOW/WS/KPA are under the control of CWM/KPA but the staff strength of 17 IOW units are maintained by Sr.DPO/SDAH.

2.6.3 During field observation it is noticed that minor maintenance works throughout the year are undertaken by Works units deploying their existing Artisan and Gr.D staff. Among 10 nos items of works mentioned in para 2.3.2, maintenance of building as well as pipelines only are under taken by the departmental staff.

The details maintenance work under IOW units is described as under:

i) Building: (Residential & Service)

Leaky roof treatment, repairing of damaged doors/windows, walls, floors and sanitary works etc are the main jobs carried out by the departmental staff.

ii) Major & Minor Bridge(FOB/ROB/RUB):

Mainly Major and Minor bridge are maintained by Bridge dept. Major repairing work is done through contractual agency and petty repairing work is complied by departmental IOW staff. Jungle cutting of linear water way at the time of summer season and changing of broken wooden/concrete slab under FOB, ROB & RUB are the main maintenance work.

iii) Water treatment plant:

The detail of departmental work is shown as under:

Checking of:

a) Chlorination of water

b) Iron removal from water

c) Water softening

d) Physical test in every month and chemical test at an interval of 3 months are to be made in the outside laboratory by the help of department staff.

iv) Surface /Underground drainage:

The length of underground drain is very less with respect of surface drain. Maintenance of drainage system at service building/colonies is executed by medical dept. repairing of drain as well as cleaning of drain near L/C gate at the time of rainy season is carried out by IOW staff.

v) Road area:

Road repairing works are off-loaded to contractual agency on yearly contract basis. The engagement of departmental staff against repairing of road is nothing.

v) PF(covered/uncovered):

The following maintenance works are carried out departmentally.

a) Changing AC sheets.

b) Cleaning of pipeline attached with PF covered portion during rainy season.

c) Earth filling with cementing near holes in PF uncovered portion.

d) Jungle cutting near PF fencing.

vi) Pumping installation:

Installation and maintenance of pump is done by Electrical Department and only operation of valves for supplying water is undertaken by valve man of Engineering Department.

vii) Pipeline:

Average maintenance work catered by IOW units over SDAH division is focused as under:

- i) Repairing and replacement of damaged pipeline including fittings
- ii) Cleaning and replacement of corroded pipeline
- iii) Cleaning of OH tank and roof tank in a particular time.

2.6.4 It is noticed during physical observation that several contractual works are going on under Works units in SDAH division. The contractual works are simply classified as special work and Zonal work. In Zonal works, all works related to Building, Road, Pipeline, Sanitary, Wood works are carried out according to the work order prepared by the concerned supervisors. It is a yearly maintenance contract and every year it is awarded to the listed contractor for this purpose. Concerned supervisor generally use to comply all complains received throughout the year by this zonal contracts. Besides, some of the major maintenance works are executed through special works contracts. Hence, day to day petty repairing works are only carried out by the departmental staff.

2.7 The activities of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala.

The categories mentioned above except kh/Helper have nothing to do with the various repairing activities done by the Works units mentioned in the previous para, moreover they are diminishing categories due to their redundant activities.

The activities of Watchman are similar to activities of Chowkider and are deployed at store area of Works units to look after the store materials. As the size of store has become small due to outsourcing of Building Materials, the requirement of Watchman has also been reduced automatically.

The activities of Kh/Helper are to assist the artisan staff in minor/petty repairing works which are carried out departmentally. The activities of such nature of work have been reduced due to outsourcing of all repairing works through Zonal maintenance work.

The activities of Field man are similar to the activities of chainman and are deployed to assist supervisors for day to day work.

Malis are deployed to look after the garden under Works units.

The Safaiwalas are utilized to clean the work place so that the routine maintenance works can be carried out in a hygienic condition. Presently, all cleaning activities at station premises as well as in colony area are outsourced. The work load of Safaiwala has become nil. Hence, the Safaiwala category has become diminishing category and the requirement of Safaiwala has automatically been come down.

2.7.1 Excerpts of the reviewed result

On being reviewed the workings vis-a-vis effective utilization of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala in their respective field of work, the study team has drawn conclusion in the fore coming paragraph in order to assess the actual requirement of the said category of staff.

During physical observation, the study team observed that major maintenance works are performed by out sourced agencies. For this purpose, maintenance and repairing

work are awarded annually to the outside agency termed as Zonal maintenance contract. For major or special repairing works, separate works contract are awarded by the department.

Departmental staffs are mainly deployed for minor or petty repairing works against complains registered by the occupants. The concerned categories except Kh/Helper have nothing to do with the day to day maintenance work as described earlier. Even, scope of minor maintenance work is also squeezed due to inclusion of all types of maintenances in Schedule of Rates contracts based on which Zonal maintenance contracts are awarded. Now, through Zonal maintenance contract, all types of repairing and maintenance work can be executed.

Hence, study team opines that the above mentioned category should be surrendered in phase wise as the activities of these categories have become redundant.

Consequent upon the changed scenario the study team thus opines to surrender the existing vacant posts of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala in the 1st phase and the remaining posts may be surrendered in due course.

- 2.7.2 As per analysis made in the study report, it is recommended that the total actual requirement of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala duly revised will be as under.

Division/Department	Existing			Proposed	
	Sanctioned (Gr.C + Gr. D)	MOR (Gr.C + Gr. D)	Vacancy	Requirement	Surrender
Watch Man	38	36	2	36	2
Kh/Helper	118	111	7	111	7
Field Man	1	0	1	0	1
Mali	20	19	1	19	1
Safaiwala	37	27	10	27	10
TOTAL	214	193	21	193	21

2.8 RECOMMENDATION:

Summarizing the proposed requirement, it is recommended that 21 posts consist of Watch Man, Kh/Helper, Field Man, Mali and Safaiwala should be rendered as surplus from the existing sanctioned strength of Works wings in Engineering Department of SDAH division.

CHAPTER-III

3.0 FINANCIAL APPRAISAL:

3.1 According to recommendation made in para-2.8 the financial savings thus achieved on account of surrendering of 21 posts comprising 02 Posts of Watch man, 7 posts of Kh/Helper, 01 post of Field man, 01 post of Mali and 10 posts of Safaiwala is tabulated below. For easier calculation, the bottom most GP on lower Grade pay is considered.

LEVEL	G.P	PAY	MEAN PAY	D.A	NO OF POSTS	MONEY VALUE	
				9%		MONTHLY	ANNUAL
2	1900	19900-63200	41550	3739.5	21	951090.00	11413080.00

Thus, consequent upon implementation of recommendation, **the annual savings will be Rs 1,14,13,080/- \approx Rs.1.14 Cores.**