



WORK STUDY REPORT  
ON  
REVIEW OF MISC. GROUP 'D'  
STAFF WORKING UNDER SSE/WORKS  
OF ENGINEERING DEPTT  
OVER  
FIROZPUR DIVISION  
2019-20  
WORK STUDY TEAM

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No. 16-CP/05/WS/2019-20

Central Planning Cell,  
Northern Railway,  
Headquarters Office,  
New Delhi.

## EXECUTIVE SUMMARY

This study was allotted to the Central Planning Cell, HQ Office, with a view to identify redundant/unproductive activities in the working of Group 'D' staff working in Engineering department over Firozpur division. On roll Group 'D' staff is 392 against the sanctioned strength of 715 and 323 posts are lying vacant under SSE/W over FZR division.

### STAFF POSITION

The total sanctioned and on roll strength of misc. Group 'D' staff under SSE/W of Engg Department is mentioned as under: -

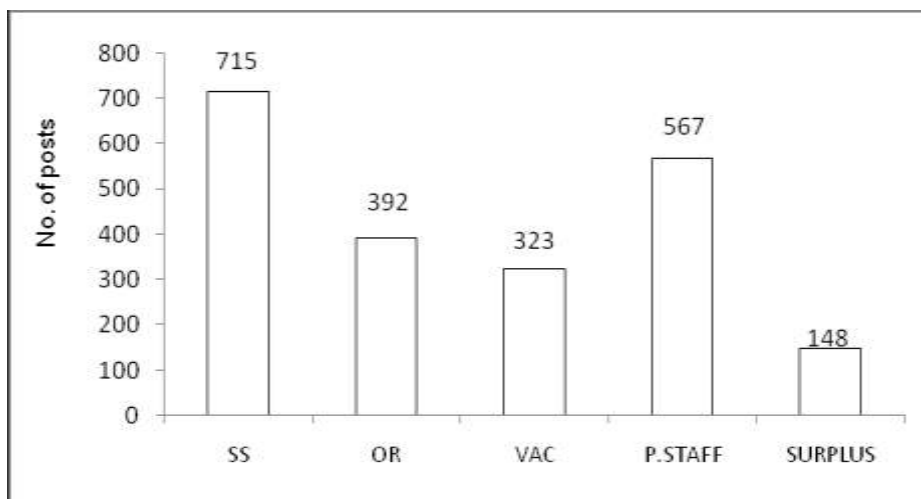
S.N.	Category	S/S	O/R	Var.
1	Group 'D'	715	392	323
Total		715	392	323

No. of posts identified as surplus and recommended for Group 'D' staff surrender: -

Group 'C' = Nil  
Group 'D' = 148 posts  
Total = 148 posts

### FINANCIAL IMPLICATIONS

Anticipated recurring savings = 744.92 lakh per annum  
Capital savings = Nil  
Total savings\_ = 744.92 lakh per annum



## I N D E X

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## SYNOPSIS

Indian Railways is the cheapest mode of transport in the country. It is biggest organization of government with huge manpower engaged in its safe working. Several departments are functioning as a team to keep the wheels moving and achieve the goal by transporting passengers and freight from one place to another. The Civil Engineering department plays twin role in providing public utility services. The P.Way department provides good quality of track fitness. On the other hand the works department provides maintenance the infrastructure like residential and service buildings, water supply system, rest houses and public amenities to rail users.

In Railways, the process of absorption of modernization has been started and still in progress in every sphere of system. These technological upgradations have shown considerable improvement in the efficiency and manpower productivity in Railways.

In view of technological developments in every sphere of railway working, the Engg Works department has also adopted the pattern of working by multiskilling in trades, closing down of redundant activities and outsourcing of major works to contractors. The departmental labour is attending minor/petty repair work, which shows reduced workload. Although the Engineering department has executed construction work, wooden/steel work on contractual basis, yet the manpower is being engaged in excess.

Keeping above in view, SDGM/NR assigned this work study to Central Planning Cell, HQ Office with a view to optimize utilization of manpower. After review of existing workload in SSE/works over FZR division, the team identified 148 posts of different categories of Gr 'D' staff as surplus and recommended for surrender. After implementation of all the recommendations made in the report, a net recurring annual saving to the tune of Rs. 744.92 lakh per annum will be achieved.

## SUMMARY OF RECOMMENDATIONS

S. No.	Recommendations	Ref. Para No.	Accepting/ Implementing authority																																													
1	<p>It is proposed that 148 posts of different Group 'D' staff are identified as surplus and recommended for surrender as under:</p> <table><tr><th>S No</th><th>Category</th><th>Grade</th><th>Surplus Posts</th></tr><tr><td>1</td><td>Works Khallasi</td><td rowspan="12">Rs. 5200-20200+1800</td><td>53</td></tr><tr><td>2</td><td>Works Mate</td><td>04</td></tr><tr><td>3</td><td>Chainman</td><td>10</td></tr><tr><td>4</td><td>Chowkidar</td><td>10</td></tr><tr><td>5</td><td>Safaiwala</td><td>07</td></tr><tr><td>6</td><td>Mali Khallasi</td><td>39</td></tr><tr><td>7</td><td>Helper Khallasi</td><td>10</td></tr><tr><td>8</td><td>Care taker</td><td>05</td></tr><tr><td>9</td><td>Cleaner</td><td>01</td></tr><tr><td>10</td><td>Store Khallasi</td><td>04</td></tr><tr><td>11</td><td>Chalandar</td><td>01</td></tr><tr><td>12</td><td>Chlorination Khallasi</td><td>04</td></tr><tr><td colspan="3">Total</td><td>148</td></tr></table>	S No	Category	Grade	Surplus Posts	1	Works Khallasi	Rs. 5200-20200+1800	53	2	Works Mate	04	3	Chainman	10	4	Chowkidar	10	5	Safaiwala	07	6	Mali Khallasi	39	7	Helper Khallasi	10	8	Care taker	05	9	Cleaner	01	10	Store Khallasi	04	11	Chalandar	01	12	Chlorination Khallasi	04	Total			148	2.2.1	ADRM/FZR SR.DEN/C/FZR SR.DPO/FZR
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### ACKNOWLEDGEMENT

The work study team is highly grateful to Shri Sukhvinder Singh, ADRM/ FZR, Shri D. K. Singh, Sr.DEN/C/FZR, Sh. Jusuf Kabir, Sr.DPO/ FZR and other functionaries for giving their valuable guidance and extending their full cooperation in providing relevant data/information during the conduct of the study.

## 1.0 INTRODUCTION

- 1.1 Indian railway provides transportation services at a desired level of safety to its users. Being a public utility service it also provides various passenger amenities like drinking water, waiting rooms, clean platform environment within railway premises
- 1.2 It is the Civil Engineering department, which maintains track fitness and maintenance of infrastructures. It is necessary to say that entire maintenance (works) of service/residential buildings, bridges, foot over bridges, water system, approach roads etc. is supervised by Sr. Section Engineer (Works) in his jurisdiction.
- 1.3 In works department, a huge manpower has been engaged to meet with the day to day maintenance activities, with heavy amount incurred by railways to meet out their high wages. It is true that Engg. Department is highly expenditure orientated so more attention is required towards its economical approach of men and materials.
- 1.4 The modernization and technological up-gradation in railway system has brought a lot of change in policies, the maintenance work is being outsourced by Engineering (works) department. All the major works are being outsourced. This has resulted in improved quality of maintenance and reduction in workload of works department. Keeping in view above, SDGM/NR assigned the work study to Central Planning Cell HQ Office with a view to review the Misc Group 'D' staff of Engg/W Department in relation to existing workload.

## 1.5 TERMS OF REFERENCE

The work study has been conducted under the following terms of references:

1. To review staff strength vis-à-vis existing workload.
2. To identify redundant/unproductive/obsolete activities with a view to eliminate wasteful expenditure.
3. To suggest ways and means to improve the efficiency and productivity of the system.

## 1.6 METHODOLOGY ADOPTED

The following method study and work measurement techniques of work study were applied for conducting the review:-

1. Data collection and its critical analysis to assess the factual position
2. Application of yardstick in vogue, if any
3. Held discussions at various levels.

## 2.0.0 BRIEF DESCRIPTION, STAFF POSITION, CRITICAL ANALYSIS, REQUIREMENT OF STAFF AND RECOMMENDATIONS

### 2.1.0 BRIEF DESCRIPTION

Firozpur division is an important division of Northern Railway. The layout of FZR division spread over the territory of Jammu & Kashmir, Punjab, Himachal Pradesh and Rajasthan. The sectional ADEN layout of FZR division is as under: -

ADEN	SSE/Works	
FZR-I	Firozpur	FZR
	Kotkapura	KKP
FZR-II	Lohian Khas	LNK
	Jalalabad	JBD
	Jagraon	JGN
LDH	Ludhiana	LDH
	Phagwara	PGW
PTK	Mukerian	MEX
	Pathankot Jn	PTK
	Pathankot Cantt	PTKC
PLMX	Palampur	PLMX
	Nagrota	NGRT
JAT	Kathua	KTHU
	Jammu Tavi	JAT
JRC	Jalandhar City	JUC
	Jalandhar Cantt	JRC
ASR	Amritsar M/L	ASR M/L
	Amritsar B/L	ASR B/L
	Amritsar Workshop	ASR WKS
UHP	Udhampur	UHP
BDGM	Badgaon	BDGM



#### 2.1.1 ACTIVITIES PERFORMED BY MISC. CATEGORY GR 'D' STAFF (WORKS)

The misc Group 'D' staff working under control of SSE/SE (Works) and carry out the following activities under their jurisdiction.

1. The works khallasi staff is provided in Engg (Works) to assist the artisan staff i.e. Mason, fitter, Black Smith, carpenter and painter.
2. The works khallasi staff also assists in the working which is deputed by the SSE/SE works.
3. Valveman, chainman, Mali khallasi, store khallasi, safaiwala staff, chlorination khallasi, chowkidar etc are also deputed to perform their duties in day to day working

2.1.2 Sr.DEN/C is the administrative head of Engg. Deptt. There are total 21 sub sectional offices of works branch under the control of SSE/SE/Works over the FZR division.

### 2.1.3 STAFF POSITION

The team collected the maintenance staff position of Misc. Gr 'D' staff working under SSE/SE (W) over FZR division from the divisional headquarter which is placed as annexure-II in the report and the summarized position of staff of these units is given as under: -

ADEN	SSE/W		Sanctioned Strength	On Roll	Vacancy
FZR-I	Firozpur	FZR	93	56	37
	Kotkapura	KKP			
FZR-II	Lohian Khas	LNK	77	30	47
	Jalalabad	JBD			
	Jagraon	JGN			
LDH	Ludhiana	LDH	85	45	40
	Phagwara	PGW			
PTK	Mukerian	MEX	74	49	25
	Pathankot Jn	PTK			
	Pathankot Cantt	PTKC			
PLMX	Palampur	PLMX	63	34	29
	Nagrota	NGRT			
JAT	Kathua	KTHU	62	32	30
	Jammu Tavi	JAT			
JRC	Jalandhar City	JUC	73	51	22
	Jalandhar Cantt	JRC			
ASR	Amritsar M/L	ASR M/L	141	51	90
	Amritsar B/L	ASR B/L			
	Amritsar Workshop	ASR WKS			
UHP	Udhampur	UHP	17	16	01
BDGM	Badgaon	BDGM	30	28	02
Total			715	392	323

The above table reveals that on roll Group 'D' staff working under SSE/W over FZR division of Engg department is 392 against the sanctioned strength of 715 and 323 posts are lying vacant in different categories.

Category wise staff position of Misc Group 'D' staff under SSE/W of Engg department over FZR division:

S No	Category	S/S	O/Roll	Vacancy
1	Works Khallasi	509	280	229
2	Works Mate	8	04	04
3	Chainman	25	15	10
4	Chowkidar	40	30	10
5	Safaiwala	16	09	07
6	Mali Khallasi	60	21	39
7	Helper Khallasi	24	14	10
8	Care taker	11	06	05
9	Cleaner	01	01	00
10	Store Khallasi	13	09	04
11	Chalandar	01	0	01
12	Chlorination Khallasi	07	03	04
Total		715	392	323

The above table reveals that on roll Group 'D' staff working under SSE/W over FZR division of Engg department is 392 against the sanctioned strength of 715 and 323 posts are lying vacant in different categories.

#### 2.1.4 Workload:

During the conduct of work study the team collected the ADEN wise workload in terms of ITKM of Engg/works from divisional office FZR which is depicted as under:

ADEN	SSE/W	ITKM
FZR-I	FZR	658.110
	KKP	
FZR-II	LNK	437.940
	JBD	
	JGN	
LDH	LDH	700.340
	PGW	
PTK	MEX	532.710
	PTK	
	PTKC	
PLMX	PLMX	299.400
	NGRT	
JAT	KTHU	657.500
	JAT	
JRC	JUC	450.670
	JRC	
ASR	ASR M/L	819.805
	ASR B/L	
	ASR WKS	
UHP	UHP	705.570
BDGM	BDGM	550.430
Total		5812.475

The above table reveals that 5812.475 ITKM are maintained by the Engg/works department over FZR division

#### 2.1.5 CRITICAL ANALYSIS

Since manpower is the biggest component of the expenditure of Indian Railways, rightsizing of manpower to reduce unit costs is an effective way to increase efficiency of Indian Railway.

The study is confined to provide the actual requirement of misc Group 'D' staff in view of existing workload. In Engineering Deptt/Works the major works are outsourced under Zonal contracts. Similarly road construction, replacement of wooden/iron doors and windows is being carried out by contractors. Certain annual maintenance and repairs like white washing and painting of staff quarters/service buildings, remodeling of quarters, petty repairs etc. are also carried out under zonal contract.

The one of biggest advantage of outsourcing is cost savings. The lower cost of labour provided by outsourcing is very economical to the system. In the Engineering/works department the misc Group 'D' staff is a big force. This staff is deployed to assist the artisan staff and other associated activities. This staff falls in unskilled and non safety category. The departmental labour cost much higher than the contractual labour. There are certain categories like chainman, valveman, chowkidar, challandar, mali khallasi, safaiwala, water carrier etc; which are redundant/diminishing categories in nature.

## 2.2.0 REQUIREMENT OF MISC GROUP 'D' STAFF WORKING UNDER SSE/W OVER FZR DIVISION

During the conduct of work study the team collected the workload in terms of ITKM and analysed critically. The work study team has taken into consideration, the yardstick in vogue, contract works, deployment of staff, and held discussion at various level while proposing the requirement of staff. Guidelines for requirement of manpower circulated to divisions CE/G/NR vide No. 385-W dt.11.01.91. The basic factor to calculate the manpower in works branch is Integrated Track Kilometer (ITKM). The equivalent factors to calculate ITKM are as under:-

SN	Description	ITKM
1	1500 sqm plinth area of residential and service building, floor and platform surface	1 ITKM
2	100 mtrs. of water way of major bridges track.	3 ITKM
3	100 mtrs of water way of minor bridges tunnels, FOB, ROB, RUB track.	2 ITKM
4	Water pumping station, water treatment plant.	5 ITKM
5	Quarries	20 ITKM
6	1000 mtrs road.	2 ITKM

Strength of Works staff recommended for each 150 ITKM:-

- i) 2 mason with 4 khallasi
- ii) 2 carpenter with 4 khallasi
- iii) 1 fitter (pipe) with 1 khallasi
- iv) 1 painter with 1 khallasi
- v) 1 blacksmith with 1 khallasi as hammer man,
- vi) 1 workmate with gang of 6-10 khallasi for misc work (Since most of the labour work is being carried out on contract basis under zonal contracts only two men are provided as gang of khallasi)

- 2.2.1 The Misc group 'D' staff is unskilled and falls in the non safety category. The activities of these unskilled staff may be outsourced through a labour contract. The safety is not infringes by the outsourcing the activities of Helper Khallasi and other Group 'D' staff. Rightsizing of the Railways has been the refrain in recent times particularly since it has a direct bearing on the profitability of the Railways and operating ratio. This will be cost saving to the Railways. The requirement of Gr 'D' staff has been assessed on the basis of yard stick and ITKM which is as under:

ADEN	SSE	ITKM	Yard Stick @ 11 man/150 ITKM+2man	LR @ 12.5%	Total (iii+iv)
	i	ii	iii	iv	v
FZR-I	FZR	658.110	57.036	7.130	64.166
	KKP				
FZR-II	LNK	437.940	37.955	4.744	42.699
	JBD				
	JGN				
LDH	LDH	700.340	60.696	7.587	68.283
	PGW				
PTK	MEX	532.710	46.168	5.771	51.939
	PTK				
	PTKC				
PLMX	PLMX	299.400	25.948	3.244	29.192
	NGRT				
JAT	KTHU	657.500	56.983	7.123	64.106
	JAT				
JRC	JUC	450.670	39.058	4.882	43.940
	JRC				
ASR	ASR M/L	819.805	71.050	8.881	79.931
	ASR B/L				
	ASR WKS				
UHP	UHP	705.570	61.149	7.644	68.793
BDGM	BDGM	550.430	47.704	5.963	53.667
Total		5812.475	503.748	62.968	566.716 Say 567

The proposed requirement of group 'D' staff comes to 567 against the sanctioned strength of 715 and 148 posts in different categories are identified as surplus and recommended for surrender.

Chainman, chowkidar, safaiwala, mali khallasi, helper khallasi, cleaner, chalandar and chlorination khallasi are redundant and diminishing category and there will no intake in future of these categories, vacant posts of these categories rendered surplus and recommended for surrender.

#### RECOMMENDATION NO.1

It is proposed that 148 posts of misc Gr 'D' staff are identified as surplus in different categories and recommended for surrender as follow.

S No	Category	Grade	Surplus Posts
1	Works Khallasi	Rs. 5200-20200+1800	53
2	Works Mate		04
3	Chainman		10
4	Chowkidar		10
5	Safaiwala		07
6	Mali Khallasi		39
7	Helper Khallasi		10
8	Care taker		05
9	Cleaner		01
10	Store Khallasi		04
11	Chalandar		01
12	Chlorination Khallasi		04
Total			148



### 3.0.0 FINANCIAL IMPLICATIONS:

SN	Category	Pay scale + Grade pay ■	No. of posts	Monthly value per post ■.	Total annual recurring saving ■.
1	Helper Khallasi	5200-20200- 1800	148	41944	74492544/-
Total					

No. of posts identified as surplus: -

Group 'C' = Nil posts

Group 'D' = 148 posts

Total = 148 posts

Anticipated recurring saving = ■ 744.92 lakh per annum

Capital saving = Nil

Total saving = ■ 744.92 lakh per annum

#### 4.0.0 PRODUCTIVITY:

4.1.0 The annual expenditure as per 7<sup>th</sup> CPC on Group 'D' staff of Engineering (Works) working under SSE/SE/Works over FZR division is as under:-

S. No.	Category	Grade in ■■	Monthly value per post in ■■	S/S	Annual expenditure in ■■
1	Misc Group 'D' staff	5200-20200-1800	41944	715	359879520/-
Total			41944	715	359879520/-

The above table reveals that the annual expenditure being incurred on 715 sanctioned strength of Group 'D' staff of Engineering (Works) working under SSE/Works over FZR division 359879520/-

4.1.1 The annual expenditure on the proposed strength of Group 'D' staff of Engineering (Works) working under SSE/Works over FZR division as under:-

S. No.	Category	Grade in ■■	Monthly value per post in ■■	P/S	Annual expenditure in ■■
1	Misc Group 'D' staff	5200-20200-1800	41944	567	285386976/-
Total			41944	567	285386976/-

The above table reflects that after the implementation of the work study report, the expenditure on the proposed staff will come to ■■285386976/-Therefore the expenditure will be reduced from ■■ 359879520/- to■■285386976/-/-per annum.

LIST OF ANNEXURE

SN	Contents	Annexure No.
1	Letter of C.P. Cell to initiate the work study No. 16-CP/05/WS/19-20 dt.02.04.2019.	I
2	Statement showing staff position of SSE/SE(Works) depots over FZR division	II

### **WORK STUDY REPORT DETAILED CHART**

Department: - Engineering (Works)

Name of study: - Review Misc Group 'D' staff working under SSE/SE/works over FZR division

Activity Centre: - Over Firozpur division.

S N	Sub activity	Brief description of workload	Actual staff deployed	Work Study recommendation s	Representati ve workload (in ITKM)
1	SSE works Depot. FZR, KKP, LNK, JBD, JGN, LDH, PGW, MEX, PTK, PTKC, PLMX, NGRT, KTHU, JAT, JUC, JRC, ASR M/L, ASR B/L, ASR WKSH, UHP, BDGM	Maintenance of service/residential building, L. Xing gates, bridges, hand pumps, water pumping stations, sewerage system, lawns, parks, ORH and SRH etc. Workload in terms of ITKM	SS= 715 posts OR= 392 posts Vac= 323posts	S/S= 715 Staff proposed =567 posts surplus=148 posts	5812.475 ITKM over FZR division

Annexure No I

Annexure No II

## Salient features of the work study

**Name of the Work study:** Review of Misc Group 'D' staff working in Engg/works department over FZR division **No. 16-CP/05/WS/19-20**

The study is confined to provide the actual requirement of Misc Group 'D' staff in view of the existing workload. In Engineering Deptt (Works side) the major works are outsourced. Similarly road construction, replacement of wooden/iron doors and windows is being carried out by contractors. Certain annual maintenance and repairs like white washing and painting of staff quarters/service buildings, remodeling of quarters etc. are carried out under zonal contract.

The Helper khallasi and other misc group 'D' staff are unskilled and falls in the non safety category. The departmental labour cost much higher than the contractual labour. The most of the activities of misc group 'D' staff is already outsourced in zonal contract of Engg department for maintenance over FZR division for day to day requirement.

The requirement of Misc Gr 'D' staff has been assessed on the basis of yard stick and ITKM. Total ITKM of Engg (works)/FZR division is 5812.475. Requirement of Gr 'D' staff comes to 567 against the sanctioned strength of 715.

148 posts of different categories are identified as surplus and recommended for surrender.

1. (i) Total sanctioned of Misc Group 'D' staff =715
- (ii) On roll strength =392
- (iii) Vacancy =323
- (iv) Proposed strength =249

No. of posts identified as surplus and recommended for surrender: -

Group 'C'	= Nil
Group 'D'	= <u>148 posts</u>
<u>Total</u>	= <u>148 posts</u>

### FINANCIAL IMPLICATIONS

Anticipated recurring savings =744.92 lakh per annum  
Capital savings = Nil  
Total savings\_ =744.92 lakh per annum