WORK STUDY REPORT

ON

REVIEW OF LEVERMAN CUM CABINMAN STAFF WORKING

IN OPERATING DEPARTMENT DUE TO

INTRODUCTION OF PANEL INTERLOCKING
OVER
LUCKNOW DIVISION
2018-19

WORK STUDY TEAM

SH. LALIT KUMAR	AWSO	LEADER
SH. RAJEEV YADAV	CWSI	MEMBER

GUIDANCE BY

SH. ASHOK KUMAR AGARWAL
SWSO

DATE OF COMMENCEMENT: 02/04/2018
DATE OF COMPLETION : 13/04/2018

No. 16-CP/15/WS/18-19

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

EXECUTIVE SUMMARY

This study was allotted to Central Planning Cell, HQ Office with a view to identify redundant/unproductive/obsolete activities due to introduction of technological up-gradation in the working of signaling system and to suggest ways and means to improve manpower productivity over Lucknow Division.

STAFF POSITION

The total sanctioned and on roll strength of lever cum cabin man staff working at stations which have been covered in the review over LKO Division is as under:-

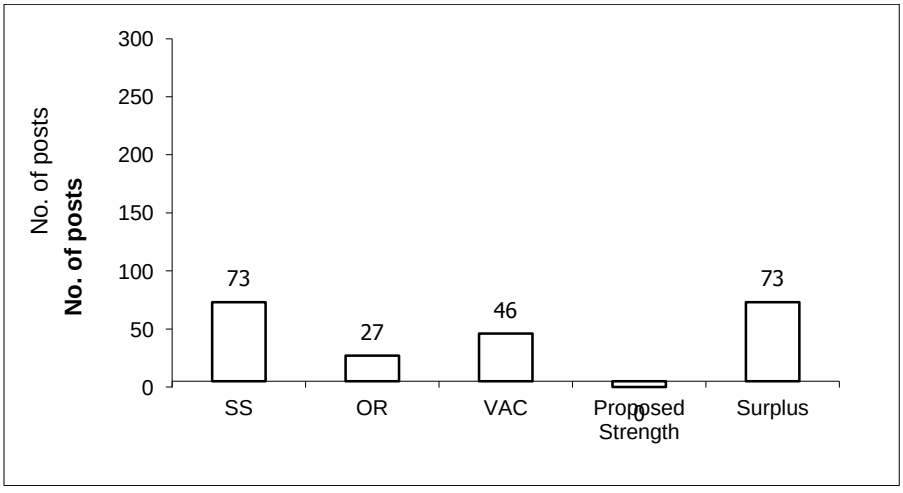
S.No.	Category	S/S	O/R	Variation
1	Lever man cum Cabin man	73	27	46
Total		73	27	46

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

Gr. 'C' = 73 posts
Gr. 'D' = NIL posts
Total = 73 posts

FINANCIAL IMPLICATIONS

Anticipated recurring savings = ₹ 389.46 lacs per annum.
Capital saving = Nil
Total = ₹ 389.46 lacs per annum



I N D E X

S.N.	Contents	Pages	
		From	To
1	Synopsis	4	-
2	Summary of recommendations	5	-
3	Acknowledgement	6	-
4	Introduction	7	-
5	Brief description, staff position, and Workload Critical analysis, proposed requirement of staff and Recommendations.	8	11
6	Financial implications	12	13
7	Work Study Report detailed chart	14	-
9	List of annexure	15	-

******

SYNOPSIS

Indian Railway is one of the largest and busiest rail network in the world and an important mode of public transportation in the country. Today, Indian Railway ranks among the top five railway systems in terms of size and scale and is poised to emerge a world class railway system. Indian Railway has been performing a valuable social role in passenger and freight sector by providing affordable means of relatively safe and efficient transportation for millions of passenger daily.

Indian Railway has successfully adopted to the changing needs of travel and transport and observed the advancement in railway technology to meet with the requirement of moving large volume of passengers and freight traffic. The efficient, safe, fast and reliable operation needs multiple aspect colour light signaling, panel interlocking, SSI, Automatic block signaling system, block proving by axle counter etc. Great emphasize has been laid for enhancing safety of signaling system through provision of track circuiting at stations. The panel interlocking is one of the prime safety measures, which enables safe, secure and reliable train operation at stations. Most of the stations have been equipped with panel interlocking over LKO Division by replacing the obsolete mechanical interlocking system.

Keeping in view of above, SDGM/NR has allotted this work study to Central Planning Cell, HQ Office, to Review Lever man cum cabin man due to introduction of Panel interlocking over LKO Division to eliminate wasteful expenditure as a result of modernization after installation of PI/RRI at various stations e.g. SHNG, MFKA, GNG, PRG, KS, SGJ, HRPG, KEPR, NHH stations etc.

In this review 73 posts of lever man cum cabin man have been identified as surplus. After implementation of all the recommendations made in the report in toto, the railway administration will achieve a net recurring annual saving to the tune of ₹ 389.46 lacs per annum.

******

SUMMARY OF RECOMMENDATIONS

Rec.No	Recommendations	Refer para No.	Accepting/ implementing authority.
1	It is proposed that 73 posts of lever man cum cabin man staff identified as surplus from different stations due to introduction of panel interlocking over LKO Division be surrendered. Lever man cum Cabin man Gr. ₹5200-20200-1900=73 posts	2.5.4(B)	ADRM/LKO Sr.DOM/LKO Sr.DPO/LKO

*****

ACKNOWLEDGEMENT

The work study team is highly grateful to Shri Amit Shrivasta, ADRM/AdmiLKO, Sh. Ajit Sinha, Sr.DOM/LKO and Sh. M.B.Singh, Sr.DPO/LKO and other functionaries for giving their valuable guidance and extending full cooperation in providing requisite data/information during the conduct of study.

*****

1.0.0 INTRODUCTION

1.1.0 The main objectives of the operating department in the Indian Railways is to ensure maximum utilization of line capacity as well as maximum through put with the available resources/assets. All these objectives can be achieved by upgrading the technology in signal and telecommunication, standard of interlocking, strengthening of track and bridges, modernization of rolling stock, replacement of overaged assets etc. To get these objectives, right sizing of staff strength, increase the manpower productivity and economy in expenditure are in the line

1.2.0 Keeping in view of above, SDGM/NR has assigned a work study to review staff strength of leverman cum cabinman due to introduction of panel interlocking over LKO Division to Central Planning Cell, HQ Office with a view to eliminate wasteful expenditure and to ensure optimum utilization of manpower and assets

1.3.0 TERMS OF REFERENCE:

The following terms of reference have been adopted to conduct the study:-

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

1.4.0 METHODOLOGY ADOPTED

The following work study techniques were adopted to conduct the study:-

1. Data collection and its critical analysis
2. Sample check, personal spot observations, activity sampling, analytical estimation and application of yardstick in vogue, if any.

3 Held discussions at various levels.

*****

2.0.0 BRIEF DESCRIPTION, CRITICAL ANALYSIS, REQUIREMENT OF STAFF AND OBSERVATIONS.

2.1.0 This study is confined to certain stations over LKO Division, which has been equipped with panel interlocking. The leverman cum cabinman were posted at the end cabins/central cabins for setting of routes and lowering of signals for reception/dispatch of trains. With the introduction of panel interlocking at various stations e.g. SHNG,MFKA, GNG,PRG,KS,SGJ,HRPG,KEPR,NHH stations of LKO Division, train operation has become centralized and pulling/pushing of levers for setting of routes/signals from end cabins/central cabins have been totally eliminated.

2.2.0 The installation of panel interlocking system has eased the operational working of stations masters. These panels are provided at a centralized place of the station building. It consists of various types of push buttons for operation of motor points and colour light signals. The route and track circuits are exhibited by LEDs. After the introduction of panel interlocking the operation work is carried out by station master on duty. Prior to this the same operation was done by leverman cum cabinman from the end cabins/central cabins on the guidance of on duty station master.

2.3.0 The power cabins are commissioned at major junction stations whereas road side stations have been equipped with axle counter block system/SGE type block instrument for granting/obtaining line clear for reception/dispatch of trains.

2.4.0 ACTIVITIES/WORK DONE BY LEVERMAN CUM CABINMAN

1) Cleaning and maintaining the operational equipments provided at cabins.
2) Operation of levers for setting of points, locks and opening/closing of barrier operated gates.
3) Recording of messages/private numbers with entry in cabin log register for arrival/departure timings of trains.
4) Exchanging private number through telephone with gateman/station master for movement of trains.
5) Exchanging all right signals and ensuring complete arrival of trains.
6) Maintaining the charge diary for taking over/handing over of daily charge.
7) Other misc. works and obeying duties assigned by their senior subordinates from time to time.

2.5.0 CRITICAL ANALYSIS

2.5.1 The upgradation in assets/working systems are introduced to achieve better utilization of available resources. In the panel interlocking system, lesser human involvement is required than mechanical/rudimentary interlocking. In the mechanical/rudimentary interlocking system, the operation for train involves working of rods, wires, levers, gears, bolts, keys etc. which are operated by the leverman cum cabinman staff from the end cabins whereas in the panel interlocking the working of stations for trains has become centralized and carried out through electrical devices by pressing various knobs provided on illuminated diagram/mimic board. After installation of panel interlocking, all these operations are carried out by station master on duty and there is no requirement of leverman cum cabinman staff for end cabins/central cabins. The panel interlocking is more economical, safer and faster in comparison to mechanical interlocking which has also abolished the deployment of leverman cum cabinman staff.

2.5.2 The provision of panel interlocking has increased the line capacity and through put of the Section. In train operation safety has great importance which we derive from panel interlocking/route relay interlocking system. Hence, considering the aforesaid facts involves in the working of operating staff (leverman cum cabinman) over LKO Division, the review has been conducted to eliminate wasteful expenditure which is imperative due to redundant/obsolete activities as a result of modernization after commissioning of panel interlocking.

2.5.3 STAFF POSITION

During conduct of study, the team has considered the staff position of following stations over LKO Division, where panel interlocking has been incorporated and operation has been started. The staff position has been collected from Divisional HQ Office which is tabulated as under:-

stations

S.N	Station	Category	S/Strength	On roll strength	Vacancy
1	SHNG	Leverman cum cabinman	04	01	03
2	MFKA	--do--	06	02	04
3	GNG	--do--	06	02	04
4	PLP	--do--	01	-	01
5	PRG	--do--	06	02	04
6	KHNM	--do--	01	-	01
7	GRMR	--do--	02	-	02
8	ARKA	--do--	06	04	02
9	DYP	--do--	06	02	04

10	LLJ	--do--	03	01	02
11	RRS	--do--	02	01	01
12	KS	--do--	03	01	02
13	SHG	--do--	01	-	01
14	MLPR	--do--	02	01	01
15	JFG	--do--	01	-	01
16	SGJ	--do--	03	01	02
17	HRPG	--do--	03	01	02
18	KEPR	--do--	03	02	01
19	MWP	--do--	02	-	02
20	LBA	--do--	02	01	01
21	NHH	--do--	07	04	03
22	SYK	--do--	03	01	02
Total			73	27	46

The above table reveals that at the above mentioned stations, the total sanctioned strength of lever man cum cabin man is 73 with on roll strength 27 and 46 vacant posts.

2.5.4. REQUIREMENT OF STAFF AND RECOMMENDATIONS

During the course of study, the team collected the staff position and working procedure of said stations where panel interlocking has come into operation. The team noticed that although these stations are equipped with panel interlocking, still the leverman cum cabinman category is being utilized for different work other than to specific and nominated work of Lever man cum cabin man of the operating department. After commissioning of panel interlocking system the cabins have become in operative and redundant.

It is obvious that lever man cum cabin man staff working prior to commissioning of panel interlocking system have become surplus and is recommended to surrender them.

The above table reveals that the total sanctioned strength of lever man cum cabin man at the said stations is 73 and there is no requirement of this staff as stations have been equipped with PI/RRI. Hence, 73 posts of lever man cum cabin man are identified as surplus and recommended for surrender.

2.5.5 SUMMARY OF EXISING AND PROPOSED STAFF

S.N	Station	Category	S/Strength	Proposed strength	Identified surplus
1	SHNG	Leverman cum cabinman	04	-	04
2	MFKA	--do--	06	-	06
3	GNG	--do--	06	-	06

4	PLP	--do--	01	-	01
5	PRG	--do--	06	-	06
6	KHNM	--do--	01	-	01
7	GRMR	--do--	02	-	02
8	ARKA	--do--	06	-	06
9	DYP	--do--	06	-	06
10	LLJ	--do--	03	-	03
11	RRS	--do--	02	-	02
12	KS	--do--	03	-	03
13	SHG	--do--	01	-	01
14	MLPR	--do--	02	-	02
15	JFG	--do--	01	-	01
16	SGJ	--do--	03	-	03
17	HRPG	--do--	03	-	03
18	KEPR	--do--	03	-	03
19	MWP	--do--	02	-	02
20	LBA	--do--	02	-	02
21	NHH	--do--	07	-	07
22	SYK	--do--	03	-	03
Total			73		73

The above table reveals that the total sanctioned strength of lever man cum cabin man at the above said stations is 73 and there is no requirement of this staff as stations have been equipped with PI/RRI. Hence, 73 posts of lever man cum cabin man are identified as surplus and recommended for surrender

RECOMMENDATION NO.1

It is proposed that 73 posts of lever man cum cabin man identified as surplus from SHNG,MFKA, GNG,PRG,KS,SGJ,HRPG,KEPR,NHH etc. stations due to introduction of panel interlocking over LKO Division be surrendered.

Lever man cum Cabin man Gr. ₹ 5200-20200-1900=73 posts

3.0. **FINANCIAL IMPLICATIONS**

3.1. Sanctioned strength: The total annual expenditure on leverman cum cabinman working at various stations which have been covered in this review over the LKO Division is as under:-

S N	Category	Pay Scale + Grade Pay	Monthly value per posts	S/ strength	Monthly expenditure	Total annual expenditure
1	Leverman cum cabin man	5200-20200-1900	44459.00	73	3245507.00	38946084.00
Total				73		38946084.00

The above table reveals that total annual expenditure being incurred on 73 sanctioned posts of lever man cum cabin man working at various comes to ₹ 38946084.00

3.2 Proposed strength: The annual expenditure on the proposed strength of lever man cum cabin man is as under:-

SN	Category	Pay Scale + Grade Pay	Monthly value per posts	Proposed staff	Monthly expenditure	Total annual expenditure
1	Lever cum Cabin man	5200-20200-1900	44459.00	-	-	-

The above table reveals that total annual expenditure on leverman cum cabinman staff at these above said stations will be reduced to zero instead of ₹38946084.00 and net annual saving will be ₹ 38946084.00

3.3 Anticipated Recurring savings:

SN	Category	Grade ₹	No. of surplus posts	Monthly value per posts Rs.	Anticipated annual recurring saving Rs.
1	Leverman cum cabin man	5200-20200-1900	73	44459.00	38946084.00
Total			73		38946084.00

No. of posts identified as surplus: -

Group 'C'= 73 posts
Group 'D'= NIL posts
Total = 73 posts

Anticipated recurring saving = ₹389.46 lacs per annum
Capital saving = Nil
Total saving = ₹389.46 lacs per annum

****

WORK STUDY REPORT DETAILED CHART

Department : - Operating

Name of study : - Review of Lever man cum Cabin man due to introduction of Panel interlocking at various stations over LKO Division.

Activity centre: - Over Lucknow Division.

S.N.	Sub activity	Brief description of workload	Actual staff deployed	Work Study recommend-ations	Representative workload
1	Operational duty performed by leverman cum cabinman to set route and lowering of signals from end cabins/ central cabins before introduction of PI.	Most of the stations over LKO Division have been equipped with PI. therefore mechanical/ rudimentary interlocking has been replaced.	SS= 73 OR= 27 Vac=46	The work study team identified 73 posts of lever man cum cabin man and recommended for surrender.	After commissioning of PI at various stations the mechanical workload has reduced.

****

LIST OF ANNEXURES

S.N.	Description	Annex. No.
1	Statement showing staff position of Leverman cum cabinman at various stations which have been equipped with PI/RRI over LKO Division.	I
2	Letter of C.P. cell to initiate the work study No. 16-CP/15/WS/18-19 dated 02/04/18.	II

*****

Annexure No.I

STATEMENT SHOWING STAFF POSITION OF LEVERMAN CUM CABIN MAN AT VARIOUS STATIONS WHICH HAVE BEEN EQUIPPED WITH PI/RRI AND COVERED IN THIS REVIEW.

S.N	Station	Category	S/Strength	On roll strength	Vacancy
1	SHNG	Leverman cum cabinman	04	01	03
2	MFKA	--do--	06	02	04
3	GNG	--do--	06	02	04
4	PLP	--do--	01	-	01
5	PRG	--do--	06	02	04
6	KHNM	--do--	01	-	01
7	GRMR	--do--	02	-	02
8	ARKA	--do--	06	04	02
9	DYP	--do--	06	02	04
10	LLJ	--do--	03	01	02
11	RRS	--do--	02	01	01
12	KS	--do--	03	01	02
13	SHG	--do--	01	-	01
14	MLPR	--do--	02	01	01
15	JFG	--do--	01	-	01
16	SGJ	--do--	03	01	02
17	HRPG	--do--	03	01	02
18	KEPR	--do--	03	02	01
19	MWP	--do--	02	-	02
20	LBA	--do--	02	01	01
21	NHH	--do--	07	04	03
22	SYK	--do--	03	01	02
Total			73	27	46