WORK STUDY REPORT

ON

REVIEW OF CABINMAN STAFF

DUE TO

INTRODUCTION OF PANEL INTERLOCKING

AT TUN, NRW, DHY, DTN AND HMQ STATIONS

OVER

DELHI DIVISION

2018-19

WORK STUDY TEAM

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BY

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DATE OF COMPLETION : 09/04/2018

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 Delhi Division.

STAFF POSITION

The total sanctioned and on roll strength of cabin man staff working at TUN,NRW,DHY,DTN and HMQ stations over Delhi Division is as under:-

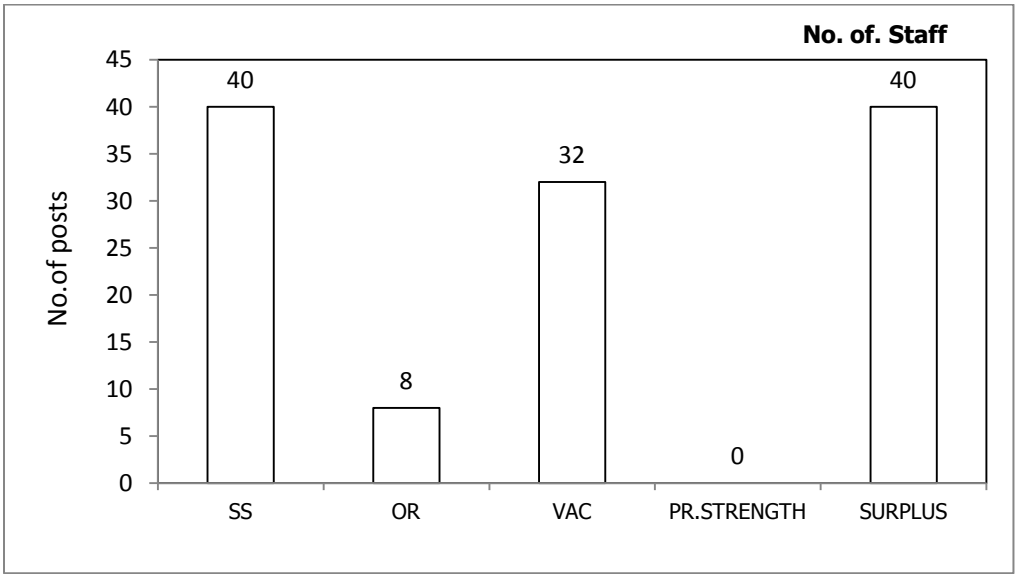
S.No.	Category	S/S	O/R	Variation
1	Cabin Man	40	08	32
Total		40	08	32

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

Gr. 'C' = 40 posts
Gr. 'D' = NIL posts
Total = 40 posts

FINANCIAL IMPLICATIONS

Anticipated recurring savings = ₹273.74 lacs per annum.
Capital saving = Nil
Total = ₹273.74 lacs per annum



I N D E X

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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 National 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 Delhi 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 cabin man staff due to introduction of Panel interlocking at some stations of Delhi Division to eliminate wasteful expenditure as a result of modernization after commissioning of panel interlocking at TUN,NRW,DHY,DTN and HMQ stations. In this review 40 posts of 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 ₹ 273.74 lacs per annum will be achieved

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SUMMARY OF RECOMMENDATIONS

S.N. Rec.No	Recommendations	Refer para No.	Accepting/ implementing authority.
1	It is proposed that 40 posts of cabinman staff identified as surplus from TUN,NRW,DHY,DTN and HMQ stations due to introduction of panel interlocking of Delhi Division be surrendered. Cabin man Gr. ₹ 5200-20200-1900=40 posts	2.5.4(B)	ADRM/Admin./DLI Sr.DOM/DLI Sr.DPO/C/DLI

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ACKNOWLEDGEMENT

The work study team is highly grateful to Shri Vikas Purwar,ADRM/Admin./DLI, Sh. ,Sr.DOM/DLI and Sh.Devendra Kumar,Sr.DPO/C/DLI and other functionaries for giving their valuable guidance and extending full cooperation in providing requisite data/information during the conduct of study.

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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 tele-communication, standard of interlocking, strengthening of track and bridges, modernization of rolling stock, replacement of over aged 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 cabin man due to introduction of panel interlocking at some stations of Delhi 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.

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2.0.0 BRIEF DESCRIPTION, CRITICAL ANALYSIS, REQUIREMENT OF STAFF

2.1.0 This study is confined to TUN, NRW, DHY, DTN and HMQ stations of Delhi Division, which have been equipped with panel interlocking. The cabin men 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 these stations of DLI 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 station 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 cabin man from the end cabins/central cabins.

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 up gradation in assets/working systems has 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 cabin man 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. After installation of panel interlocking, all these operations are carried out by station master on duty and there is no requirement of cabin man 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 cabin man.

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 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 i.e.cabinman over DLI 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 TUN, NRW,DHY,DTN and HMQ stations of Delhi Division where panel interlocking has been incorporated and operation has been started. The staff position has been collected from Divisional HQ Office as well as from Station In charges, which is tabulated as under:-

S.N	Station	Category	Grade in Rs.	S/ Strength	On roll strength	Vacancy
1	TUN	Cabin man	5200-20200-2400	08	01	07
2	NRW			08	02	06
3	DHY			08	02	06
4	DTN			08	03	05
5	HMQ			08	-	08
Total				40	08	32

The above table reveals that at the stations mentioned above, the total sanctioned strength of cabin man is 40 with on roll strength of 09 and 32 posts are vacant.

2.5.4. REQUIREMENT OF STAFF AND RECOMMENDATIONS

During the course of study, the team collected the staff position and working procedure of the said 05 stations where PI/RRI has been installed Thus, after commissioning of panel interlocking system the cabins have become in operative and redundant and the on roll 09 cabin man staff should be posted at the stations where the cabins are still in use.

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

2.5.5 SUMMARY OF EXISTING AND PROPOSED CABIN MAN STAFF

S.No.	Station	Date of commissioning PI/RI	Sanctioned strength	On roll	Proposed strength	Identified surplus
1	TUN	27.07.2017	08	01	-	08
2	NRW	19.09.2017	08	02	-	08
3	DHY	09.11.2017	08	02	-	08
4	DTN	19.12.2017	08	03	-	08
5	HMQ	12.02.2017	08	-	-	08
Total			40	08	-	40

The above table reveals that the total sanctioned strength of cabin man at above 05 stations is 40 and there is no requirement of this staff as stations have been equipped with PI/RRI. Hence, 40 posts of cabin man staff are identified as surplus and recommended for surrender.

RECOMMENDATION NO.1

It is proposed that 40 posts of cabin man staff are identified as surplus recommended for surrender.

Cabin man Gr. ₹ 5200-20200-2400 =40 posts

3.0. **FINANCIAL IMPLICATIONS**

3.1. Sanctioned strength: The total annual expenditure on cabin man staff working at TUN,NRW,DHY,DTN and HMQ stations of the DLI Division is as under:-

S.No.	Category	Pay Scale + Grade Pay	Monthly value per posts	S/ strength	Monthly expenditure	Total annual expenditure
1	cabin man	5200-20200-2400	57031	40	2281240.00	27374880.00
Total				40		27374880.00

The above table reveals that total annual expenditure being incurred on 40 sanctioned posts of cabin man comes to ₹ 27374880.00

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

S.No	Category	Pay Scale + Grade Pay	Monthly value per posts	Proposed staff	Monthly expenditure	Total annual expenditure
1	Cabin man	5200-20200-2400	57031	-	-	-

The above table reveals that total annual expenditure on cabin man staff at TUN,NRW,DHY,DTN and HMQ stations of the DLI Division will be reduced to zero instead of ₹ 23374880.00 and net recurring saving will be ₹ 233748880.00

3.3 Anticipated Recurring savings:

S.No.	Category	Grade ₹	No. of surplus posts	Monthly value per posts Rs.	Anticipated annual recurring saving Rs.
1	cabin man	5200-20200-2400	40	57031	23374880.00
Total			40		23374880.00

No. of posts identified as surplus: -

Group 'C'= 40 posts
Group 'D'= NIL posts
Total = 40 posts

Anticipated recurring saving = ₹ 273.74 lacs per annum
Capital saving = Nil
Total saving = ₹ 273.74 lacs per annum

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WORK STUDY REPORT DETAILED CHART

Department : - Operating

Name of study : - Review of Cabin man staff due to introduction of Panel Interlocking/RRI at TUN, NRW,DHY,DTN and HMQ stations of the DLI Division

Activity Centre:- TUN,NRW,DHY,DTN and HMQ stations

SN	Sub activity	Brief description of workload	Actual staff deployed	Work Study recommend-ations	Representative workload
1	Operational duty performed by cabin man staff to set route and lowering of signals from end cabins/ central cabins before introduction of PI/RRI.	Most of the stations over Delhi division have been equipped with PI. Recently, TUN,NRW,DHY ,DTN and HMQ stations have been equipped with PI, therefore mechanical/ rudimentary interlocking has been replaced.	SS=40 OR=08 Vac=32	The work study team identified 40 posts of cabin man staff and recommended for surrender.	After commissioning of PI/RRI at TUN,NRW,DHY, DTN and HMQ stations of the DLI Division, the mechanical workload has eliminated.

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LIST OF ANNEXURES

S.N.	Description	Annex. No.
1	Statement showing staff position of cabin man staff at TUN,NRW,DHY,DTN and HMQ stations of the DLI Division	I
2	Letter of C.P. cell to initiate the work study No. 16-CP/10/WS/18-19	II

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Annexure No.I

STATEMENT SHOWING STAFF POSITION OF CABINMAN STAFF WORKING AT TUN,NRW,DHY,DTN AND HMQ STATIONS OVER DELHI DIVISION

S.N	Station	Category	Grade in Rs.	S/ Strength	On roll strength	Vacancy
1	TUN	Cabin man	5200-20200-2400	08	01	07
2	NRW			08	02	06
3	DHY			08	02	06
4	DTN			08	03	05
5	HMQ			08	-	08
Total				40	08	32