

WEST CENTRAL RAILWAY



WORK STUDY REPORT

ON

*“Review of Cabinman cadre of operating deptt. since
introduction of Panel Interlocking over Kota division”*

STUDY PERSONNELS

Tulsi Singh

Asstt. Work Study Officer

Rajesh Kumar

Chief Work Study Inspector

WORK STUDY ORGANISATION - JABALPUR

INDEX

Sr. No.	<u>Description</u>	Page No.
	<u>Synopsis</u>	1
Chapter -I	Introduction	2-4
Chapter-II	Staff Strength	5-8
Chapter-III	Financial Implications	9

SYNOPSIS

Indian Railway is one of the largest and busiest rail networks 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 adapted 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 signalling, panel interlocking, SSI, Automatic block signalling system, block proving by axle counter etc. Great emphasis has been laid for enhancing safety of signalling 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 Jabalpur Division by replacing the obsolete mechanical interlocking system. The said operational method based on modernized technology obviously control the movement the trains more effectively in comparison to previous system of working.

After introduction of PI the function of Cabinman/Leverman in End cabins has become nil and to eliminate wasteful expenditure as a result of modernization after installation of PI/RRI at various stations of JBP division.

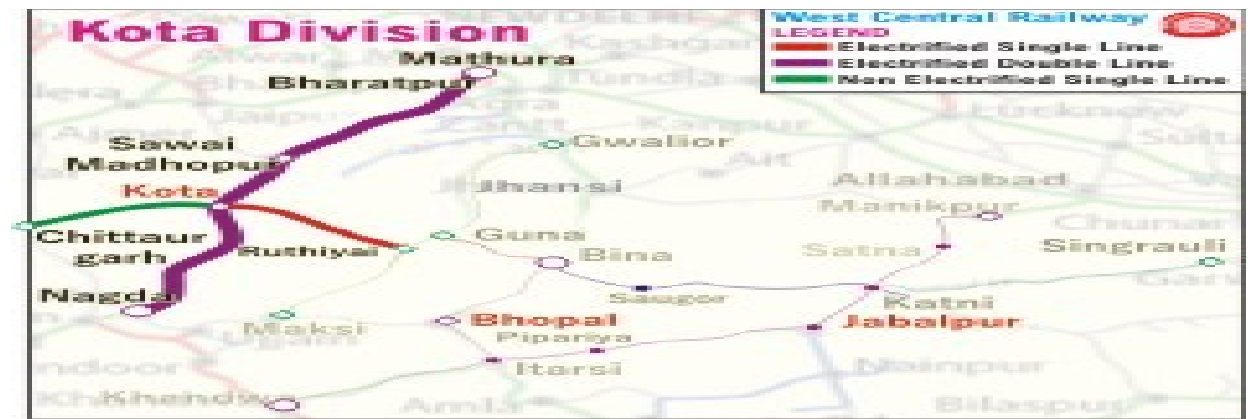
Keeping in view, all these constraints, Work Study Cell is assigned to conduct work study of ***'Review of Cabinman cadre of operating department since introduction of Panel Interlocking over Kota division'***. To arrive at the actual requirement of staff, the team held discussions with officers and supervisors of this division.

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CHAPTER-I

1. INTRODUCTION

- 1.1 Work Study on “Review of Cabinman cadre of operating department since introduction of Panel Interlocking over Kota division” has been taken as a ‘Crash Study’ for the year 2019-20.
- 1.2 Kota railway division of the West Central Railway was formed on 1 April 1952 as part of then the Western Railway. It is one of the most important divisions on the western route of Indian Railways. It has total 93 stations of different categories.



Total route and track kilometerage of Kota division are **896** and **1971**, respectively. The geographical extension of Kota division spreads mainly in the state of Rajasthan with some parts lying in Madhya Pradesh and Uttar Pradesh and on the map of Indian Railways is Nagda (excluding) - Mathura (excluding) double line electrified BG Sec; Kota - Ruthiyai (excluding) single line electrified BG Sec.; Kota - Chanderiya single line

The important ongoing works falling in Kota division are doubling of Bina-Ruthiyai-Kota Sec. (282 Km.) and electrification of Kota – Chanderiya sec (164 km).

- 1.3 Operating department plays very important role in Indian Railways, which is producing a service called as Transportation. The Operating department ensures effective usage of tracks, signals and rolling stock etc.. Its functions are broadly classified as under:

- Monitoring of train services.
- Running of trains punctually
- Safety in operation
- To maintain the efficiency & economy in operation.
- Planning of freight & coaching services.

1.4 Kota Jn. is a most important station of Kota division as it is one of the major train crew changing point of Kota division. Kota Jn. is central point for North South corridor as well as North West corridor.

1.5 Consequent to commissioning of Panel Interlocking and Route Relay Interlocking over Jabalpur division, there has been considerable reduction in the work load of cabinmen, leverman and Pointsmen.

1.6 Advantages of Panel Interlocking system.

- The system is used in Railways in interest of smooth operations and safety.
- It reduces the manual activities, like Switchman, cabinman, leverman etc.
- Ensures easy handling of route setting time
- Technical up gradation to avoid problems in maintenance and operations.
- To reduce the failures and ensure greater safety.
- To increase the efficiency of working.
- Optimum utilization of manpower.
- Optimum utilization of resources.
- To maintain punctuality of trains.

1.7 Kota division is divided into following control sections, as per working in control organization of Kota division.

Section	KMs	Line
Nagda-Kota	224.98	Double Line
Kota-Gangapur City	171.37	Double Line
Gangapur City-Mathura Jn.	152.63	Double Line
Ramganj Mandi- Jhalawar city	25.80	Single Line
Kota-Ruthiyai	164.26	Single Line
Kota- Chanderia	163.816	Single Line

Cabinmen, Levermen, Pointsmen & Gatemen are very important and essential posts in operating department as they are directly involved in train operation.

1.8 Duties of Cabinmen/Levermen:

1. To set the points and padlock, operated by levers, as instructed by station master on duty for through passing or for a shunting movement of a train.
2. ON or OFF the signal as required and recording of messages/private numbers with entry in cabin log register for arrival/departure timings of trains..
3. To exchange signal with guard and driver of a train when the train passing through.
4. To report the defects of signals and points to SM on duty in time.
5. To keep cabin and other assets neat and clean.
6. They required attending their duties in proper uniform and awareness.
7. To exchange all right signals and ensuring complete arrival of trains.
8. Cleaning and maintaining the operational equipments provided at cabins.
9. Maintaining the charge diary for taking over/handling over of daily charge.
10. Others miscellaneous works and obeying duties assigned by their senior subordinates from time to time

- 1.9** In the era of advancement of modern technologies, Indian Railway has always kept pace with the introduction of technological advancement. The object of modernization is to maintain safety, security and punctuality. In addition to that, with the advancement of technology, Railway has also upgraded the staff by giving training to acquaint with modern technology, so that they can keep pace with the line.

CHAPTER-II

2 Workload & Requirement of staff

- 2.1** Kota Jn. is a divisional head quarter of Kota division. It is situated on the Nagda-Mathura Jn. main line at a distance of 920.95 KMs from Churchgate Mumbai. This station is working with A, B, C, Kota South & Sogaria cabins. This station is crew changing station for Goods and M/Exp/Passenger trains.

Train operation at Kota Jn. station is very busy work, since a large no. of Goods trains and Passenger/Mail/Express trains are having stoppage at this station. Most of these trains are due for replacement of Guards and Drivers. It is also Caution Order Notice station, caution order has to be served to Guards and Drivers of each trains.

- 2.2** This study is confined to certain stations over Kota Division, which has been equipped with panel interlocking. The 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 of Kota 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 but some cabins of Kota division are working with cabinman due to lever exists yet.
- 2.3** The Sanctioned Strength & On roll position of Cabinman cadre of Kota division is as follows.

Sr. No	Station	GP 2400	GP 1900	SS	MOR	VAC
1	SNAR	1	2	3	0	3
2	JNRI	2	1	3	0	3
3	MLGH	3	0	3	1	2
4	BNDI	2	1	3	1	2
5	PSLI	2	1	3	1	2
6	BSSL	2	1	3	1	2
	Total	12	06	18	04	14

It may be seen from the above table, 12 posts of GP-2400 and 06 posts of GP-1900 are sanctioned. In which 18 sanctioned posts, 04 posts are Man On Roll i.e. 14 posts are vacant.

- 2.4** The main objectives of the operating department in the Indian Railways are to ensure maximum utilization of line capacity as well as maximum throughput 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 & 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.
- 2.5** 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 cabinman from the end cabins/central cabins on the guidance of on duty station master.

2.6 CRITICAL ANALYSIS:

- 2.6.1** The upgradations in assets/working systems are introduced to achieve better 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 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 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 cabinman staff.

2.6.2 The provision of panel interlocking has increased the line capacity and throughput 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 (cabinman) over Kota 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.

2.6.3 During the course of study, the team collected the staff position and working procedure of said stations where panel interlocking has come into operation. It is observed by the work study team that cabinmen where they are available are utilized as Pointsman/gatemen or as pilot guards. Stations where the posts of cabinmen are sanctioned are functioning with panel interlocking and there is no need of cabinmen at those stations, the utility of Cabinmen are seems to be nil.

The above mentioned table 2.3 reveals that the total sanctioned strength of cabinman at the said stations is 18 and there is no requirement of this staff after equipped with PI/RR1.

So, due to panel interlocking the posts of cabinmen are entirely not required at any station of the division but some cabins are still working.

Hence, after commissioning of Panel Interlocking works, all 18 posts of cabinman are identified as surplus and recommended for surrender.

2.7 Recommendation 1:

After introduction of Panel Interlocking over Kota division, all 18 posts of cabinman are identified as surplus should be withdrawn and surrendered.

2.8 Recommendation 2:

14 posts of Cabinman which is lying vacant from a long period should be surrendered immediately.

CHAPTER-III

3

FINANCIAL IMPLICATION

- 3.1** The financial implications involved in surrender of following posts identified as surplus in Operating staff cabinman working at Kota division, are worked out as follows:-

Grade	GP 2400 12 posts	GP 1900 06 posts
Mean of Grade	53300	41550
DA @ 9%	4797	3740
Transportation	1800	1800
Salary Per Month	59897	47090
X 12 Per annum	718764	565080
No. of Posts = 18	1,29,37,752	33,90,480
Total Saving Per Annum	1,29,37,752+ 33,90,480 = 1,63,28,232	

So, Total savings= Rs. 1.63 Crores per annum
