

# “Review Of Redundant, Non Operative And Out Sourced Posts In Engineering Department over Nagpur Division”

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## Synopsis of the Study

Study No	WSCR/Engg/NGP/2/18-19
Name of the study	Review of Redundant Non Operative and outsourced posts in Engineering Department of Nagpur Division
Proposed	AGM/ C Rly
Department	Engineering
Date of Commencement	16/12/2018
Date of Completion	22/03/2019
Date of Submission	25/03/2019
No. of Recommendation	02
Sanction strength -	5968
No. of Men studied	4654
No. of vacancies	1314
No. of Posts identified surplus	18
Financial Implications	Rs.13972224 per annum

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### Acknowledgement

The work-study team expresses its deep gratitude to Shri P R Patil; Sr. DEN(Co) / NGP, whose valuable guidance provided a successful conclusion to this study and whose productive suggestion enhanced the enthusiasm of the team.

The team is very thankful to other staff, who ever possibly made the availability of documents concerned & directed the team to its positive approach.

### Authority And Term Of Reference

The work-study on “Review of Redundant Non operative and outsourced posts in Engineering department over Nagpur division” is a study proposed by AGM/C.Rly. the same has been included in Annual work study programme for the year 2018-19 with Study No WSCR./Engg/ NGP/02 / 18 – 19.

The terms of reference for given work-study is to review and assess judicious requirement of redundant non operative posts over NGP division corresponding to existing workload.

### Basis Of Study

After studying various cadres of Engineering staff it was found that Carpenter staff and Mason staff at P.Way depots are becoming redundant in light of change in working pattern due modernization of technology on Indian Railway.

### Methodology

The work-study team has adopted the following technique for completion of the study.

- Verification of Data provided by Engineering Branch in detail with reference to quantum of work load.
- Discussion of details with Supervisor / Staff.
- Critical analysis of the data collected.
- Making recommendations for need base staff in the present context.
- Working out financial implication involved in saving as a result of surplus staff.

Summary of Recommendations

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Recommendation No.1:12 Carpenter Staff in P.Way depots are identified as Surplus in  
Artisan Cadre over Nagpur Division.

Recommendation No.2:06 Mason Staff in P.Way depots are identified as Surplus in  
Artisan Cadre over Nagpur Division.

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Indian Railways is the life-line of nation providing transportation facility over the length and breadth of country. Its vision is to provide efficient, affordable, customer-focused, environmentally sustainable integrated transportation solutions and to be the vehicle of inclusive growth, connecting regions, communities, ports and centers of industry, commerce, tourism and pilgrimage across the country.

Civil Engineering infrastructure is the largest static infrastructure of Indian Railways comprising of track, bridges, land, etc. Management of this huge infrastructure has to be done in accordance with the organization's vision. Civil engineering department of Indian Railways manages and maintains all these infrastructures. Further, it has key role in the area of infrastructure development, technological leap in various fields, high speed travel and development of world class stations.

The work-study on "Review of Redundant Non operative and outsourced posts in Engineering department over Nagpur division"

The track is maintained with the help of Gangmen. The maintenance of track is a vital activity in the working of train in relation to safety & punctuality and It is duty of engineering department to up keep the standard of track using engineering parameters for the safe running of trains, in this way Engg. Department is the backbone of Railway system.

Modern Technology has changed the entire track structure, its construction & maintenance. Due to modernization certain activities becomes redundant & some of the maintenance work also contracted out. Due to this the stress of workload comes down.

To ensure the optimum utilization of man power, to bring down the staff cost and for achieving the productivity of Man power.

P.Way organization is apart of Engg, deptt at divisional level, functions under the administrative control of Sr.DEN(Co)/Nagpur. Officers having entrusted with a particular section comprising of sectional CPWIs/PWIs/SSE ( Pway) are in-charge of P.Way depots and are responsible for up-keeping of track.

The maintenance of the track is vital activity in the working of trains with regard to safety and punctuality. SSE (P.Way), which is In-Charge of about a length of track KMs in his section, maintains the track with the help of his assistants. Section of PWI is further divided into Gang beats of about 6-7 Route Kms and is kept under the charge of P.WayMistry for day to day work / Maintenance. P.WayMistry is assisted by Skilled Labours i.e. Mate, Key men for identifying & correcting track defects with the help of unskilled labours i.e. Gang men.

Permanent way maintenance is largely done by gangs consisting of gangman under the supervision of a gang-mate. The gang goes down its assigned section of track (the gang beat or beat section), inspecting track and performing normal routine maintenance. A patrolman may be separately deputed to perform visual inspections along the length of a section of track by walking alongside it (two patrolmen in ghat or jungle areas). Typically the patrol may cover ~ 6-8km of track.

The schedule and track sections to be monitored by gangmen and patrolmen are specified in a Patrol Chart prepared by the Divisional Engineer. This chart also indicates when and where the drivers of trains running to schedule may expect to meet

gangmen. Patrolmen and gangs carry Patrol Books in which they record the status of the track and any maintenance they perform on it.

The gang is equipped to deal with minor problems such as fixing small deviations in gauge or elevation of the rails, rearranging ballast, etc. If problems are discovered with the permanent way that cannot readily be fixed by the gang, the details are reported to the station master of one of the adjacent block stations, and temporary engineering speed restrictions are put in place for the track. Trains going through that section are then subject to caution orders issued by the stations at either end.

A bigger maintenance of way crew with appropriate tools and machinery then works on repairing the track while it is protected by being restricted. In some cases traffic on the line may have to be completely stopped. Replacing ballast or sleepers, adjusting the rail profile by grinding, joint lubrication, rail creep adjustment, replacing short sections of damaged rail, welding rails, etc., are some of the other maintenance tasks that come up. The regular patrolling of track is very important in order to maintain safe conditions for trains.

The permanent way inspector (PWI) for a division has ultimate responsibility for the condition of the permanent way under his jurisdiction. The PWI and his staff undertake separate regular inspection tours of the various lines, often in a motor trolley or inspection car. (In the past manually pushed trolleys were used quite often, but their use is declining now.)

#### P.way maintenance work:-

1. Systematic through packing.
2. Attention to Level crossing gates, bridge approaches.
3. Shallow screening pumping location.
4. Lifting of track & attention to turn out.
5. Systematic over hauling of track.
6. Casual renewal of Rails & sleepers
7. Adjustment of minor creep.
8. Cess cutting & side drain cleaning.
9. Special attention to Points & Crossing.
10. Ballast regulation & Dressing.
11. Lubrications of Rail joints
12. Attention to run down locations & Curves
13. Misc petty items i.e. renewal of Bridge sleepers, clearing of weeds from track, Cleaning Stations & yards.
14. Pre & Post tamping attention during TTM working
15. Welding of Rails of turn outs, FP joints etc.

#### Misc activities other than track maintenance work:-

- 1 Loading & Unloading of materials.
- 2 Lorrying out material other than casual renewal of rails & sleepers.
- 3 Repairs to bridges and painting of Bridges & various Engg board in section.
- 4 Painting of rails in stations & yards etc.
- 5 Watching of materials.
- 6 Monsoon patrolling, Hot/Cold weather patrolling & Security of special patrolling.
- 7 Assistance during stock verification
- 8 Released Rails, sleepers collection & stacking.
- 9 Carrying out Diesel from Petrol pump for track machines.
- 10 Provision for RG & LR.
- 11 Tree Plantation. Etc.
- 12 Protection & Removal of dead bodies in run over cases and removal of Dead/ decayed animals.

Methods of Maintenance of track:-

1. Conventional
2. Mechanized.

Type of track structure:- Maintenance work is being Carried out according to the type of track structure . The type of track structure is as under.

1. Fish platted track.
2. Short welded Panels. ( SWR)
3. LWR/CWR on Metal & wooden sleepers.
4. LWR/CWR on Concrete sleepers.



The scale check of Engineering Department of Nagpur Division by the February 2019 is as follows.

Dept	Sanctioned Strength			Men on Roll			Vacancy		
	Gr.C	Gr.D	Total	Gr.C	Gr.D	Total	Gr.C	Gr.D	Total
Engg	2585	3383	5968	2067	2587	4634	518	796	1314

During the course of study of various cadres, it has come to light that there is a sanctioned strength of 12 posts and a sanctioned strength of masons of 06 posts in P.Way depots of Engineering department.

Carpenter: During the days of wooden sleeper, the artisan category of Carpenter was considered necessary. After replacement of wooden sleeper with PSC sleeper, the work of carpenter has reduced only to provide wooden block between track and platforms. This work is of very negligible and can be performed by carpenter available with IOWs without putting any significant additional workload over them.

Mason: The work of mason is mainly for minor patch work. There is no specific workload on mason that can justify independent post of mason at PWI depots. Existing workload is of very less and can be performed by Mason available with IOWs without putting any additional workload over them.

#### Scale check of Carpenter and Mason staff in P.Way Depots

Depot	Level	Carpenter SS	Mo R	Vac	Level	Mason SS	Mo R	Vac
NGP	5	1	0	1				
KSWR	5	1	0	1				
WR	5	1	0	1	4	1	0	1
PLO	4	1	0	1	4	1		1
WRR					4	1	0	1
WUN	4	1	0	1				
CD	4	1	0	1				
NRKR	6	1	0	1	4	1	0	1
MTY	5	1	0	1	4	1	0	1
JNO	5	1	0	1				
AMF	5	1	0	1	5	1	0	1
KQE	4	1	0	1				
BZU	5	1	0	1				
		12	0	12		6		6

In view of above fact, the existing sanctioned strength of 12 carpenters is identified as surplus and may be surrendered immediately

In view of above fact, the existing sanctioned strength of 06 masons is identified as surplus and may be surrendered immediately.

Chapter 3	Recommendations and Observations
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Recommendation No.1: 12 vacant posts of Carpenter Staff are identified as Surplus in P.Way depots in Artisan Cadre over Nagpur Division.

Recommendation No.2: 06 vacant Mason Staff are identified as Surplus in Artisan Cadre over Nagpur Division.

Observation: It has been observed that some of the miscellaneous activities such as cleaning of weeds from tracks, cleaning stations and yards, welding at some sections etc in P. Way have been outsourced. Therefore the work study team is of the opinion that a review of outsourcing activities and redeployment of surplus staff may be done.

Chapter 4	Financial Implication
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Therefore on surrender of 18 posts the financial Implication will be as under.

Sr. No	Category	Level	Mean Monthly Pay	12% DA Pay	Annual Pay	No of posts	Total
1	Carpenter	6	73900	82768	993216	1	993216
2	Carpenter	5	60750	68040	816480	7	5715360
3	Carpenter	4	53300	59696	716352	4	2865408
4	Mason	5	60750	68040	816480	1	816480
5	Mason	4	53300	59696	716352	5	3581760
				Grand Total		18	13972224

Implementation of surrender of 18 posts will result in saving of Rs. 13972224 per annum subject to actual surrender of posts.