

**WORK STUDY TO REVIEW THE STAFF  
STRENGTH AT WAGON ASSEMBLY SHOP -  
CENTRAL WORKSHOP/GOC**

**SOUTHERN RAILWAY**

**PLANNING BRANCH**

**G.275/WSSR-401920/2019-20**

**WORK STUDY TO REVIEW THE STAFF STRENGTH  
AT WAGON ASSEMBLY SHOP –  
CENTRAL WORKSHOP/GOC**

**STUDIED BY**


**WORK STUDY TEAM  
OF  
PLANNING BRANCH**

**MARCH 2020**



**(i)  
INDEX**

| <b>CHAPTER<br/>No.</b> | <b>CONTENTS</b>   | <b>PAGE<br/>NUMBER</b> |
|------------------------|---|------------------------|
| (i)                    | ACKNOWLEDGEMENT   | 1                      |
| (ii)                   | TERMS OF REFERENCE  |                        |
| (iii)                  | METHODOLOGY   |                        |
| (iv)                   | SUMMARY OF RECOMMENDATIONS                                    | 2                      |
| <b>CHAPTERS</b>        |   |                        |
| I                      | INTRODUCTION  | 3 - 4                  |
| II                     | PRESENT SCENARIO  | 5 - 9                  |
| III                    | CRITICAL ANALYSIS   | 10 - 14                |
| IV                     | PLANNING BRANCH'S REMARKS ON CO-<br>ORDINATING OFFICER'S VIEW | 15                     |
| V                      | FINANCIAL SAVINGS   | 16                     |
| <b>ANNEXURES</b>       |   |                        |
| I                      | 'SAVE' STATEMENT OF ARTIZANS AS ON<br>04.02.2020              | 17                     |
| II                     | TOOLS AND EQUIPMENTS AVAILABLE AT<br>WAS/GOC                  | 18 – 21                |
| III                    | CWM/GOC LETTER NO. CW/WP/8194 POLICY<br>DATED 21.03.2019.     | 22 – 24                |



**(i)**  
**ACKNOWLEDGEMENT**

The study team is thankful to CWM, Dy.CME(P), AWM/WP, WPO, Other Officers, SSE/Plg/RF, SSE/WAS, Supervisory staff and Personnel Branch staff of Central Workshop/GOC for their valuable guidelines and co-operation extended to the study team for the successful completion of the study.

**(ii)**  
**AUTHORITY**

Annual programme of work studies, approved by SDGM for the year 2019-20.

**(iii)**  
**TERMS OF REFERENCE**

To review the staff strength at Wagon Assembly Shop /GOC.

**(iv)**  
**METHODOLOGY**

1. Collection of data regarding allowed Time, Idle time and number of Direct Workers, Essential Indirect Workers and Indirect Workers for the period from April 2017 to Dec' 2020 (33 months).
2. Application of allowed Time in hours for 12 months as the prime factor (numerator) and average man hours (267 hours) as prescribed in the Mechanical code for workshops as the denominator to arrive at the requirement of the Direct Workers.
3. Provision of 12.5% Leave Reserve for Direct workers.
4. Though the Mechanical code for workshops provides 10% to 15% on the requirement of direct workers to arrive the Essential Indirect Workers and Indirect Workers, the study team has allowed 15% of direct workers to arrive the Essential Indirect Workers/Indirect Workers.



(v)

**SUMMARY OF RECOMMENDATIONS****RECOMMENDATION No.1:**

**One** post of Black Smith Gr.I in Grade Pay Rs.2800/- may be surrendered and credited to the bank of Surplus posts.

**RECOMMENDATION No.2:**

**Two** Vacant posts of Crane Operators Gr.III in Grade Pay Rs.1900 /- may be surrendered and credited to the bank of Surplus posts.

**RECOMMENDATION No.3:**

**Seventeen** Vacant posts of Mechanical Fitter Gr.I in Grade Pay Rs.2800 /- may be surrendered and credited to the bank of Surplus posts.

**RECOMMENDATION No.4:**

**Seventeen** Vacant posts of Mechanical Fitter Gr.III in Grade Pay Rs.1900 /- may be surrendered and credited to the bank of Surplus posts.

**RECOMMENDATION No.5:**

**Five** Vacant posts of Welder Gr.III in Grade Pay Rs.1900/- may be surrendered and credited to the bank of Surplus posts.

**Total – 42 posts.**



## **CHAPTER - I**

### **1.0 INTRODUCTION**

1.1 The erstwhile S.I.R Company Limited had its major Workshop located at Nagapattinam, a port town in the East Coast to cater to the needs of the Mechanical Department. Later, due to increased workload, the Workshop was re-located to a central place of the S.I.R Company the then Golden Rock, now Ponmalai near Trichchirappalli. In Indian Railways, GOC Workshop layout is the best one with a traverse traveling to a length of the workshop supplying the job to the various shops parallel. This shop is constructed with mixed gauges to carry out repairs of both BG and MG rolling stock. This has created the history by assisting the Royal Air Force in repairing Fighter Bombers in the Second World War.

1.2 The **Golden Rock Workshop** (Officially called as Central Workshop, Golden Rock, abbreviated GOC), in Ponmalai (Golden Rock), Tiruchirappalli, Tamilnadu is one of the three Railway Work Shops serving in South Zone. The Workshop is part of the Railways' Mechanical Department. The other two Southern Railway mechanical workshops are Carriage Works and Loco Works situated at Perambur, Chennai. The Chief Workshop Manager (CWM) is over all in-charge for this workshop and he is assisted with other Mechanical, Electrical, Stores, Accounts and personnel Officers.

### **1.3 WORKSHOP DETAILS:**

|                   |   |               |
|-------------------|---|---------------|
| Year of Built     | ; | 1926-28       |
| Total area        | ; | 200 Acres     |
| Shop Area covered | ; | 26 Acres      |
| Track length      | : | 67 Kilometers |

### **1.4 WAGON MANUFACTURING/OVERHAULING :**

For the first time in its 85 year old history, the Golden Rock Railway Workshop is all set to overall freight wagons of broad gauge type. The Railway Board has given to go ahead in this regard to the GOC, engaged in

a mosaic of activities such as manufacture of oil-fired steam locomotives, container and stainless wagons besides carrying out periodic overhaul of diesel locos and passenger coaches.

- 1.5 GOC workshop had began to manufacture wagons in 1962, has produced 34,901 wagons in 53 designs. The work shop is producing container wagons for Container Corporation of India (CONCOR)
- 1.6 This workshop is equipped with a highly skilled technical workforce and sound infrastructure facilities and will overhaul wagons used by different railway zones. Once overhauled, the wagons would again be sent for a periodic refurbishment after four and a half years. In the past few years, the workshop had dispatched a little over 3,800 container wagons for the Container Corporation of India. It exported over 120 “in-service” metre gauge diesel locomotives to many developing countries after carrying out necessary modification in them.
- 1.7 The workshop became the first Railway Repair Unit in Indian Railways to obtain ISO 9002 certification and 14000 (eco friendly).
- 1.6. The scope of this study is to review the staff strength at wagon Assembly Shop/GOC.



## CHAPTER – II

### 2.0 PRESENT SCENARIO

2.1 The Central Workshops is mainly associated with the POH of Diesel Engines, Coaches and Wagons (both MG & BG) of Southern Railway as well as other Zonal Railways, special works such as restoration of steam locos of NMR & DHR, manufacturing of BVCM, BLCS and BOXNHL wagons.

### 2.2 CARRIAGE WING:

This is the base shop for Southern Railway coach repairs. GOC Shops also undertakes heavy corrosion repairs to ICF BG Coaches. The workshop regularly undertakes conversion of coaches, changed type of services and rehabilitation of coaches. All safety features of Railway Board directives are also being incorporated during POH.

### 2.3 WAGON WING:

Wagon construction activity was started in the year 1962. Proto types of many new designs of wagons were constructed before regular bulk production was taken up. In all, 45 types of wagons have so far been constructed at GOC such as High Speed BOX-N Wagon and Bogie Low Height Container flats. At present a prototype model of a BOXNHL wagon is also being manufactured.

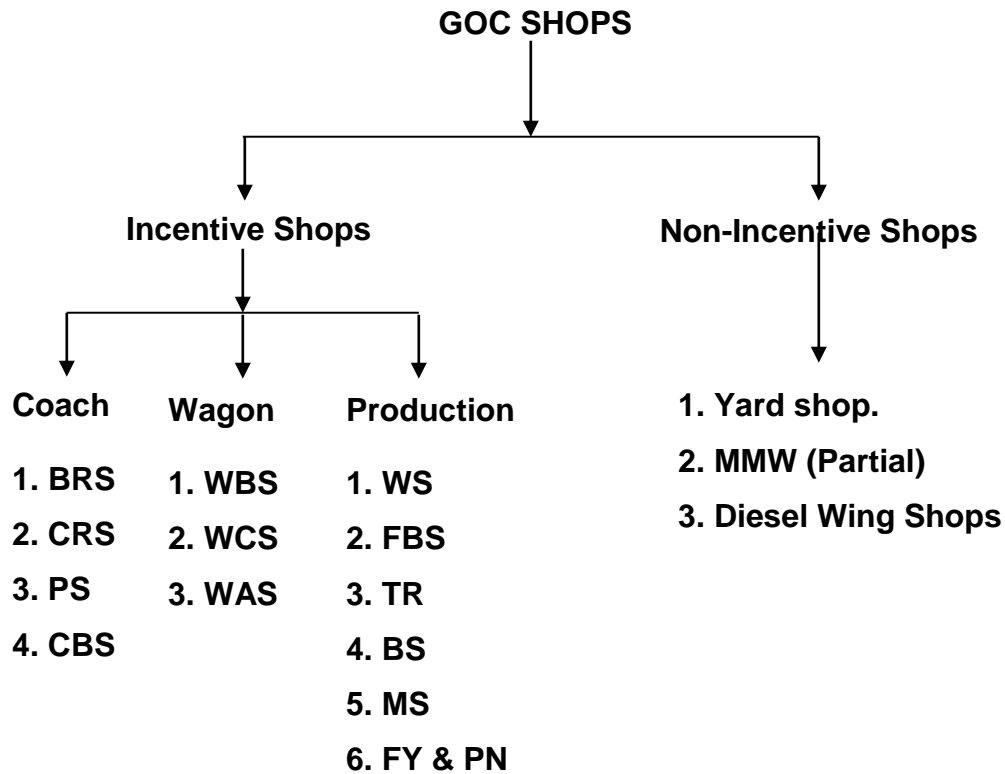
2.4 A new activity of Huck bolt is in-corporate against the conventional reverting which is more noisy and cumbersome. With the introduction of Huck bolt design a new noiseless environment is prevailing in Ponmalai Shops.

2.5 The C&W Wing of the Workshop can be classified with three broad groups for the convenience of conducting this study.

- i) Carriage Repair.
- ii) Wagon Repair & Wagon Construction/Manufacturing. .
- iii) Sister and Service Shops.



## 2.6 SHOP ORGANISATION



## 2.7 WAGON SHOPS

The Wagon wing comprises of WBS, WCS, WAS.

### **WAGON BODY SHOP (WBS):**

The major activities carried out in Wagon Assembly Shop for Container wagons are as follows:

- ❖ Under frame assembly.
- ❖ Under frame welding.
- ❖ Centre Buffer Coupler/Draw Bar assembly.
- ❖ Automatic twist lock (ATL) of BLCS wagons.
- ❖ Riveting of respective wagons.
- ❖ Lowering of under frame on original Bogie sets.
- ❖ Break Gear assembly.
- ❖ Hand Brake Assembly.
- ❖ Air Brake Assembly.
- ❖ Surface preparation

- ❖ Premier painting (Under coat)
- ❖ Final Painting
- ❖ Weighment of Wagon
- ❖ Offering for Neutral train examination
- ❖ Correction based on N.T remarks
- ❖ Dispatching of wagon rake.

2.8 The major activities carried out in Wagon Assembly Shop for BOXHL Stainless steel open type wagons are as follows:

- ❖ Under frame assembly.
- ❖ Under frame welding.
- ❖ Floor Plate Assembly
- ❖ CBC Coupler assembly & Riveting
- ❖ Body Assembly (End wall, Side wall, Roof assembly)
- ❖ Body Riveting
- ❖ Lowering on original Bogies
- ❖ Break Gear assembly.
- ❖ Hand Brake Assembly.
- ❖ Air Brake fitment
- ❖ Air Brake testing for Brake efficiency.
- ❖ Surface preparation
- ❖ Under coat Primer Painting
- ❖ Final Painting
- ❖ Weighment of Wagon
- ❖ Offering wagons for neutral train examination (N.T)
- ❖ Rectification of defects based on N.T remarks
- ❖ Dispatching of Rake.

## 2.9 **WAGON COMPONENT SHOP (WCS):**

Manufacture of components for new wagons i.e., BOXN HS, BLC wagons, manufacturing of components for DSL POH activity, Carriage POH activity and other divisional requirements.

**2.10 STAFF DEPLOYMENT:**

|                                      |   |            |
|--------------------------------------|---|------------|
| Sanctioned Strength of Artisans      | - | 226        |
| Sanctioned I strength of Supervisors | - | 19         |
| Ministerial Staff                    | - | 4          |
| <b>Total</b>                         | - | <b>249</b> |
|                                      |   |            |
| Actual Strength of Artisans          | - | 124        |
| Actual strength of Supervisors       | - | 19         |
| Ministerial Staff                    | - | 4          |
| <b>Total</b>                         | - | <b>147</b> |
| <b>Vacant Posts (249 – 147)</b>      | - | <b>102</b> |

**2.11 DISTRIBUTION OF STAFF:**

|  |   |                   |
|--|---|-------------------|
| Day Shift (Artisans+Supervisors+Min.Staff) | - | 80 + 18 + 4 = 102 |
| Night Shift                                | - | 44+1 = 45         |
| <b>Total</b>                               | - | <b>147</b>        |

**2.12 WORKING HOURS:**

|  |   |   |
|--|---|---|
| <b>Day shift</b> from Monday to Friday | - | 06.45 to 11.33 hrs. &<br>12.30 to 16.33 hrs |
| Saturday                               | - | 06.45 to 11.30 hrs.                         |
| <b>Night Shift</b>                     | - | 21.30 to 0130 hrs &<br>02.00 to 0600 hrs    |

**2.13 CORE ACTIVITIES AT WAGON ASSEMBLY SHOP:**

- ✓ Under frame Assembly
- ✓ Underframe Welding
- ✓ Coupler Assembly and Riveting
- ✓ Air brake and Hand brake Assembly &
- ✓ Painting

#### 2.14 **TOOLS AND EQUIPMENTS AVAILABLE AT WAS:**

The Tolls and Equipments available at Wagon Assembly Shop are enclosed in Annexure – II. (4 Pages)

#### 2.15 **TYPE OF WAGONS MANUFACTURING AND ITS ACTIVITIES:**

BVCM, BLCS, BOXNHL and its activities of under frame Assembly, under frame Welding, Integrated Air Brake Assembly, Hand Brake Assembly and Marking & Painting work.

#### 2.16 **OUTSOURCED ACTIVITIES:**

The following activities are Outsourced at WAS.

- Air Brake
- Hand Brake &
- Riveting and Painting for BLCS, BVCM & BOXNHL wagons.

#### 2.17 **OUT-TURN DETAILS OF WAGON PRODUCTION FOR THE YEAR 2016-17, 2017-18 & 2018-19**

| YEAR    | BOXNHL      |          | BLL/BLC     |          | TOTAL       |          |
|---------|-------------|----------|-------------|----------|-------------|----------|
|         | Manufacture | Dispatch | Manufacture | Dispatch | Manufacture | Dispatch |
| 2016-17 | 123         | 111      | 312         | 370      | 435         | 481      |
| 2017-18 | 160         | 131      | 188         | 270      | 348         | 401      |
| 2018-19 | 57          | 80       | 320         | 280      | 377         | 360      |

By taking the above facts, an analysis has been made to review the staff strength at Wagon Assembly Shop at GOC.



**CHAPTER - III****3.0 CRITICAL ANALYSIS**

3.1 The sanction, actual, vacancy position of Wagon Assembly Shop/GOC is enclosed in Annexure-I.

**3.2 YARDSTICK:**

**DIRECT WORKERS (DW):** The requirement of DW should be worked out by dividing the Allowed Time (AT) of each shop/activity with 267 (man hours per man per month).

**ESSENTIAL IN-DIRECT WORKERS (EIW):** The strength of EIW should be 15% of the strength of DWs.

3.3 The Allowed Time for Wagon Assembly Shop was collected for the year 2017-18, 2018-19 and 2019-20 (Upto Dec' 2020). This prime factor is divided by the average monthly man hours of 267 (which is the denominator) as prescribed in the Mechanical code for workshops to arrive at the Direct workers (DWs) required. As per Mechanical code for workshops the Leave reserves for the DWs are worked out at the rate of 12.5% and for EIW it varies from 10 % to 15%.

Let Load discharged (Allowed Time) = AT

Let Idle time booked = IDL

Average monthly Man-hours = 267

DWs required to complete the above AT =  $(AT + IDL) \div 267 = X$

LR for DWs (12.5%) =  $(X \times 12.5) \div 100 = Y$

Therefore DW required =  $X + Y$

EIW & IW @ 15% =  $\{(X + Y) \times 15\} \div 100 = Z$

**Total Artizans staff required =  $X + Y + Z$**

3.4 Based on the above methodology the requirement of Artisans for Wagon assembly shop is calculated as follows:

**WAGON ASSEMBLY SHOP: (2017-18) Manhours**

| <b>MONTH &amp; YEAR</b>                               | <b>ALLOWED TIME (AT)</b> | <b>TIME TAKEN</b> | <b>TIME SAVED</b> | <b>INCENTIVE BONUS %</b> |
|---|--------------------------|-------------------|-------------------|--------------------------|
| Apr 2017  | 36,543                   | 24,573            | 11,970            | 48.71                    |
| May 2017  | 24,374                   | 16,341            | 8,033             | 49.16                    |
| Jun 2017  | 35,125                   | 23,608            | 11,517            | 48.79                    |
| July 2017   | 31,957                   | 21,456            | 10,501            | 48.94                    |
| Aug 2017  | 33,116                   | 22,196            | 10,920            | 49.19                    |
| Sep 2017  | 33,911                   | 22,761            | 11,150            | 48.99                    |
| Oct 2017  | 30,061                   | 20,272            | 9,789             | 48.29                    |
| Nov 2017  | 32,633                   | 21,925            | 10,708            | 48.84                    |
| Dec 2017  | 33,790                   | 22,668            | 11,122            | 49.07                    |
| Jan 2018  | 30,070                   | 20,234            | 9,836             | 48.61                    |
| Feb 2018  | 32,161                   | 21,556            | 10,605            | 49.2                     |
| Mar 2018  | 27,207                   | 19,364            | 7,843             | 40.51                    |
| <b>TOTAL</b>  | <b>3,80,948</b>          | <b>2,56,954</b>   | <b>1,23,994</b>   | <b>-</b>                 |
| <b>Average Allowed Time per month (3,80,948 ÷ 12)</b> |                          |                   |                   | <b>31,745.66</b>         |

**WAGON ASSEMBLY SHOP: (2018-19) Manhours**

| <b>MONTH &amp; YEAR</b> | <b>ALLOWED TIME (AT)</b> | <b>TIME TAKEN</b> | <b>TIME SAVED</b> | <b>INCENTIVE BONUS %</b> |
|-------------------------|--------------------------|-------------------|-------------------|--------------------------|
| Apr 2018                | 28,766                   | 20,211            | 8,555             | 42.3                     |
| May 2018                | 21,006                   | 15,159            | 5,847             | 38.6                     |
| Jun 2018                | 28,032                   | 20,680            | 7,352             | 35.6                     |
| July 2018               | 27,849                   | 20,093            | 7,756             | 38.6                     |
| Aug 2018                | 30,699                   | 21,091            | 9,608             | 45.6                     |
| Sep 2018                | 27,467                   | 19,616            | 7,851             | 40                       |
| Oct 2018                | 25,840                   | 18,781            | 7,059             | 37.6                     |
| Nov 2018                | 26,912                   | 18,616            | 8,296             | 44.5                     |
| Dec 2018                | 29,692                   | 20,213            | 9,479             | 47                       |

|   |                 |                 |               |                 |
|---|-----------------|-----------------|---------------|-----------------|
| Jan 2019  | 25,157          | 17,260          | 7,897         | 45.8            |
| Feb 2019  | 28,727          | 19,963          | 8,764         | 43.9            |
| Mar 2019  | 27,903          | 19,410          | 8,493         | 43.8            |
| <b>TOTAL</b>  | <b>3,28,050</b> | <b>2,31,093</b> | <b>96,957</b> | <b>-</b>        |
| <b>Average Allowed Time per month (3,28,050 ÷ 12)</b> |                 |                 |               | <b>27,337.5</b> |

### WAGON ASSEMBLY SHOP: (2019-20) Manhours

| <b>MONTH &amp; YEAR</b>                              | <b>ALLOWED TIME (AT)</b> | <b>TIME TAKEN</b> | <b>TIME SAVED</b> | <b>INCENTIVE BONUS %</b> |
|--|--------------------------|-------------------|-------------------|--------------------------|
| Apr 2019   | 30,517                   | 21,192            | 9,324             | 44                       |
| May 2019   | 17,613                   | 12,317            | 5,296             | 43                       |
| Jun 2019   | 28,911                   | 20,077            | 8,834             | 44                       |
| July 2019  | 27,519                   | 19,366            | 8,153             | 42                       |
| Aug 2019   | 28,367                   | 19,907            | 8,460             | 43                       |
| Sep 2019   | 26,671                   | 19,327            | 7,344             | 38                       |
| Oct 2019   | 25,851                   | 18,897            | 6,954             | 37                       |
| Nov 2019   | 28,874                   | 20,908            | 7,966             | 38                       |
| Dec 2019   | 24,206                   | 17,155            | 7,051             | 41                       |
| <b>TOTAL</b>   | <b>2,38,529</b>          | <b>1,69,146</b>   | <b>69,382</b>     | <b>-</b>                 |
| <b>Average Allowed Time per month (2,38,529 ÷ 9)</b> |                          |                   |                   | <b>26,503</b>            |

### 3.5 AVERAGE ALLOWED TIME FOR WAGON ASSEMBLY SHOP FOR THE YEAR 2017-18, 2018-19, 2019-20 IS AS FOLLOWS: Manhours

|   |                  |
|---|------------------|
| Average Allowed Time per month (3,80,948 ÷ 12)                    | 31,746 (2017-18) |
| Average Allowed Time per month (3,28,050 ÷ 12)                    | 27,338 (2018-19) |
| Average Allowed Time per month (2,38,529 ÷ 9)                     | 26,503 (2019-20) |
| Total   | 85,587           |
| <b>Average Allowed Time for the last three Years (85,587 ÷ 3)</b> | <b>28,529</b>    |

**REQUIREMENT OF DIRECT WORKERS :**

|  |                   |   |                         |         |
|--|-------------------|---|-------------------------|---------|
| Average DW required =                  | $28,529 \div 267$ | = | 106.85                  | - ( X)  |
| LR for DW @ 12.5 %                     |                   | = | 13.36                   | - (Y)   |
| <b>Requirement of Direct Workers</b>   |                   | = | 120.21                  | - (X+Y) |
| EIW & IW @ 15 %                        |                   | = | 18.03                   | - Z     |
| <b>Total Artisans required for WAS</b> |                   | = | <b>138.24 (Say 139)</b> | = X+Y+Z |

### 3.6 **ADDITIONAL ARTISANS ALLOWED TO ACHIEVE THE FUTURE TARGET:**

As per the CWM/GOC letter No.CW/WP/8194 Policy dated 21.03.2019

(Copy enclosed as Annexure –III) addressed to CWE/MAS has stated that, the Target for 2019-20 and next four years based on highest separable capacity year-wise, type-wise, the 420 BOXNHL target has been increased from 100 wagons during the year 2019-20 to 140, 204, 204, 432 during the year 2020-21, 2021-22, 2022-23 and 2023-24 respectively. To achieve the target as fixed by the CWM/GOC, the study team has considered to increase the requirement of artisans for WAS/GOC. The percentage of increase of production as fixed by CWM/GOC is almost 4 times of the present work load. To meet the target, an additional of 45 Artisans are allowed and the **net requirement of Artisans for WAS/GOC is 139 + 45 = 184 staff.**

**SANCTION Vs REQUIREMENT OF ARTISANS FOR WAS/GOC:**

| <b>Sanction</b> | <b>Actual</b> | <b>Requirement</b> | <b>Surplus</b> |
|-----------------|---------------|--------------------|----------------|
| 226             | 124           | 184                | 42             |

### 3.7 **REQUIREMENT OF SUPERVISORS FOR WAS/GOC:**

The Sanctioned strength of Supervisors for WAS/GOC are 31. As on 11.02.2020, 21 Supervisors (15 SSEs and 6 JEs) are actually working. By considering the present work load and future target as fixed by CWM/GOC all the Supervisors sanctioned for WAS/GOC are allowed on need base.



### 3.8 REQUIREMENT OF MINISTERIAL STAFF FOR WAS/GOC:

The Sanctioned strength of Ministerial Staff for WAS/GOC are 4. As on 11.02.2020, 4 Ministerial staff (1 Ch.OS, 2 OS and 1 Sr.Clerk) are working. By considering the present work and future target as fixed by CWM/GOC all the Ministerial Staff sanctioned for WAS/GOC are allowed on need base

### 3.9 NET REQUIREMENT OF STAFF FOR WAS/GOC:

| CATEGORY     | Sanction   | Actual     | Requirement | Surplus   |
|--------------|------------|------------|-------------|-----------|
| Supervisors  | 31         | 21         | 31          | 0         |
| Aritisans    | 226        | 124        | 184         | 42        |
| Min. Staff   | 4          | 4          | 4           | 0         |
| <b>Total</b> | <b>261</b> | <b>149</b> | <b>219</b>  | <b>42</b> |

#### RECOMMENDATION No.1:

**One** post of Black Smith Gr.I in Grade Pay Rs.2800/- may be surrendered and credited to the bank of Surplus posts.

#### RECOMMENDATION No.2:

**Two** Vacant posts of Crane Operators Gr.III in Grade Pay Rs.1900 /- may be surrendered and credited to the bank of Surplus posts.

#### RECOMMENDATION No.3:

**Seventeen** Vacant posts of Mechanical Fitter Gr.I in Grade Pay Rs.2800 /- may be surrendered and credited to the bank of Surplus posts.

#### RECOMMENDATION No.4:

**Seventeen** Vacant posts of Mechanical Fitter Gr.III in Grade Pay Rs.1900 /- may be surrendered and credited to the bank of Surplus posts.

#### RECOMMENDATION No.5:

**Five** posts Vacant of Welder Gr.III in Grade Pay Rs.1900/- may be surrendered and credited to the bank of Surplus posts.

**CHAPTER – IV****4.0 PLANNING BRANCH'S REMARKS ON CO-ORDINATING OFFICER'S VIEWS**

4.1 The draft work study report was handed over to the Co-ordinating Officer (AWM/WP/GOC) on 21.02.2020. But so far, no reply has been received. The time limit allowed for the Co-ordinating Officer to respond is only 15 days.

4.2 In this connection, the Co-ordinating Officer has not responded even after 30 days, from the date of submission of the draft report.

Hence, the work study report is released without the remarks of the co-ordinating officer.



**CHAPTER – V****5.0 FINANCIAL IMPLICATIONS**

5.1 If the recommendations made in the study report are implemented, the annual recurring financial savings will be as under:

| Sl. No.      | Category                 | No.of posts | GP (Rs.) | Money Value (Rs.) | Annual savings (Rs.) |
|--------------|--------------------------|-------------|----------|-------------------|----------------------|
| 1.           | Black Smith Gr.I         | 1           | 2800     | 71,078            | 8,52,936             |
| 2.           | Crane OperatorsGr.III    | 2           | 1900     | 48,614            | 11,66,736            |
| 3.           | Mechanical Fitter Gr.I   | 17          | 2800     | 71,078            | 1,44,99,912          |
| 4.           | Mechanical Fitter Gr.III | 17          | 1900     | 48,614            | 99,17,256            |
| 5.           | Welder Gr.III            | 5           | 1900     | 48,614            | 29,16,840            |
| <b>Total</b> |                          | <b>42</b>   |          |                   | <b>2,93,53,680</b>   |

**ANNEXURE-I****'SAVE' STATEMENT OF ARTIZANS AS ON 04.02.2020 AT WAS.**

| Shop         | Sr. Technician |           |          | Gr.I       |           |           | Gr.II     |           |           | Gr.III    |           |           | Help-I   |          |          | Help-II  |          |           | TOTAL      |            |            |
|--------------|----------------|-----------|----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|----------|-----------|------------|------------|------------|
|              | S              | A         | V        | S          | A         | V         | S         | A         | V         | S         | A         | V         | S        | A        | V        | S        | A        | V         | S          | A          | V          |
| BS           | 0              | 0         | 0        | 0          | 1         | -1        | 0         | 0         | 0         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 0          | 1          | -1         |
| CO           | 4              | 2         | 2        | 7          | 3         | 4         | 1         | 3         | -2        | 2         | 0         | 2         | 0        | 0        | 0        | 0        | 0        | 0         | 14         | 8          | 6          |
| MF           | 32             | 36        | -4       | 60         | 11        | 49        | 9         | 3         | 6         | 23        | 6         | 17        | 0        | 0        | 0        | 0        | 6        | -6        | 124        | 62         | 62         |
| MWF          | 0              | 0         | 0        | 0          | 4         | -4        | 0         | 0         | 0         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 0          | 4          | -4         |
| MAC          | 1              | 0         | 1        | 2          | 4         | -2        | 0         | 0         | 0         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 3          | 4          | -1         |
| PAINTER      | 1              | 1         | 0        | 1          | 1         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 2          | 2          | 0          |
| WELDER       | 22             | 13        | 9        | 38         | 10        | 28        | 7         | 13        | -6        | 14        | 5         | 9         | 0        | 0        | 0        | 0        | 2        | -2        | 81         | 43         | 38         |
| TRADE U/A    | 0              | 0         | 0        | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 2        | 0        | 2        | 0        | 0        | 0         | 2          | 0          | 2          |
| <b>Total</b> | <b>60</b>      | <b>52</b> | <b>8</b> | <b>108</b> | <b>34</b> | <b>74</b> | <b>17</b> | <b>19</b> | <b>-2</b> | <b>39</b> | <b>11</b> | <b>28</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>0</b> | <b>8</b> | <b>-8</b> | <b>226</b> | <b>124</b> | <b>102</b> |

BS –BLACKSMITH

CO – CRANE OPERATOR,

MF – MACHANICAL FITTER,

MWF –MW FITTER,

MAC – MACHINIST,

TRADE U/A – TRADE UNALLOTTEE.