

दक्षिण पूर्व मध्य रेलवे  
SOUTH EAST CENTRAL RAILWAY

कार्यालय  
वरिष्ठ उपमहाप्रबंधक, बिलासपुर



Office of the  
Sr. Dy. General Manager, Bilaspur.  
Tel.No. 64006(Rly), 07752-414229

पत्र सं. No. WS/MSL/BSP/ 1145-

दिनांक Dated: 15.06.2018

The Divisional Railway Manager,  
S.E.C. Railway,  
Bilaspur.

- Sub:** Work study on "Review of existing cadre strength vis-a-vis work load of Major Sick Line/BSP of Mechanical Department in Bilaspur Division."
- Ref.:** (i) This office letter No.WS/MSL/BSP /738, dated 17.04.2018.  
(ii) Sr. DME(Co)/BSP's office L. No. Mech/BSP/2018/008/ Work Study MSL, dated 03.05.2018.  
(iii) This office letter No.WS/MSL/BSP /956, dated 22.05.2018.

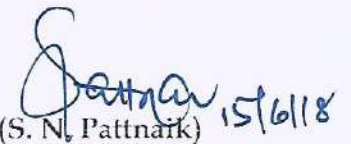
The work study of Major Sick Line/Bilaspur of Mechanical Department in Bilaspur Division has been conducted to review the requirement of staff based on the existing work load, yardstick, need base requirement, outsourcing activities and optimum utilisation of manpower. A draft study report was sent to your office vide under reference (i) to furnish remarks and the remarks was received by this office vide letter under reference [ii].

The remarks received on the draft report have been examined and the draft study report has been reviewed accordingly and the final observations are as under :

- (1.) Initially in the draft study report, 10 vacant Posts of Technician were identified as surplus and recommended to surrender.
- (2.) The remarks received on the draft report has been reviewed and a reply was sent to Sr. DME/BSP vide this office letter dated 22.05.2018 containing revised recommendation for surrender of 06 posts of Technician category from MSL/BSP. Further, no reply has been received so far.

Therefore the report is finalised with recommendations for surrender of 06 surplus vacant posts of Technician from Mechanical Department. And it is requested that suitable instructions may be given to concerned Officers for implementation of the work Study report and copy of surrender memorandum may be sent to this office so that progress of implementation of work study can be advised to Railway Board accordingly.

This has the approval of SDGM.

  
(S. N. Pattnaik) 15/6/18

Asst. Work Study Officer  
For SR. DY. GENERAL MANAGER

Encl: 1 work study report.

Copy to:-

1. The Executive Director, E&R (ME), Railway Board for kind information.
2. Secretary/SECR for kind information of GM.
3. PCME, PCPO/SECR/ BSP for kind information.
4. Sr.DME (Co)/BSP, Sr.DPO/BSP for kind information and necessary action.



Work study report on

**Review of Existing Cadre strength vis-à-vis Work Load of**  
**Major Sick Line (MSL)/Bilaspur**  
**of Mechanical Deptt.**  
**in Bilaspur Division**



OVER S.E.C. RAILWAY

WORK STUDY CELL  
S. E C. RAILWAY  
BILASPUR

STUDY NO.  
**SEC/02/2018-19**

**SOUTH EAST CENTRAL RAILWAY**

**WORK STUDY REPORT**

**ON**

**Review of Existing Cadre strength vis-à-vis Work Load of**  
**Major Sick Line (MSL)/Bilaspur**  
**of Mechanical Deptt.**  
**in Bilaspur Division**

**OVER S.E.C. RAILWAY**

**GUIDED BY**

**SRI AMIT KUMAR SINGH**  
**SR.DY. GENERAL MANAGER**

**LED BY**

**SRI S. N. PATTNAIK**  
**ASST. WORK STUDY OFFICER**

**CONDUCTED BY**

**SRI V. K. SINHA**  
**CH. WORK STUDY INSPECTOR**

**SRI S. K. MISHRA**  
**WORK STUDY INSPECTOR**

**WORK STUDY CELL**  
**S. E. C. RAILWAY, BILASPUR**

**STUDY No.**  
**SEC/02/2018-19**

## **CONTENTS**

<b>Chapter</b>	<b>Description</b>	<b>Page No.</b>
-	Summary of Recommendations & Suggestions	4
I	Introduction	5-7
II	Observations	8-11
III	Critical Analysis and Recommendations	12-18
IV	Financial Evaluation	19

## SUMMARY OF RECOMMENDATIONS & SUGGESTIONS

S#	Description	Para ref.					
	<b>Recommendations:</b> On being summarized all the facts, relevant data and observations derived through critical analysis, the revised recommendations and suggestions are as under:						
1.	Out of total sanctioned of <b>93</b> posts (Actual strength 82), the requirement of staff for Major Sick Line/BSP comes to 87. Thus, <b>06</b> (=93-87) vacant posts of Technician category are found surplus and these posts should be surrendered from MSL/BSP Unit of Mechanical Department.	<b>3.7</b>					
<b>Summary of Revised calculation of requirement of staff for MSL/BSP after reviewing the remarks on the draft study report:</b>							
<b>Initial/ Revised</b>	<b>Sanction Strength</b>	<b>On Roll Strength</b>		<b>Proposed requirement in Report</b>		<b>Total Proposed Requirement For MSL</b>	<b>Net identified surplus posts</b>
		At <b>MSL</b>	At <b>Other Units</b>	For <b>MSL</b>	For <b>Other Units</b>		
	A	B	C	D	E	F	A-F
<b>Initial</b>	108	71	11	87	11	98	10
<b>Revised</b>	<b>93</b>	<b>71</b>	<b>11</b>	<b>87</b>	<b>00</b>	<b>87</b>	<b>06</b>
2.	The none-core activities of MSL/BSP like welding activity of wagons should be outsourced so that attention on Core-Activities can be concentrated more and thereof it would be monetary beneficial vis-à-vis present system. At present welding activity of wagons in ROH Depot/PP Yard/BIA, WRS/R, DLS/R & ELS/BIA is outsourced.						<b>3.5.2</b>
	<b>Suggestions:</b>						
1.	Safety Equipments should be provided properly to staff working in safety category.						<b>3.5.3</b>
2.	Artisan staff should follow safety rules during working and proper counseling should be provided to Artisan/Helper time to time in this connection.						<b>3.5.4</b>



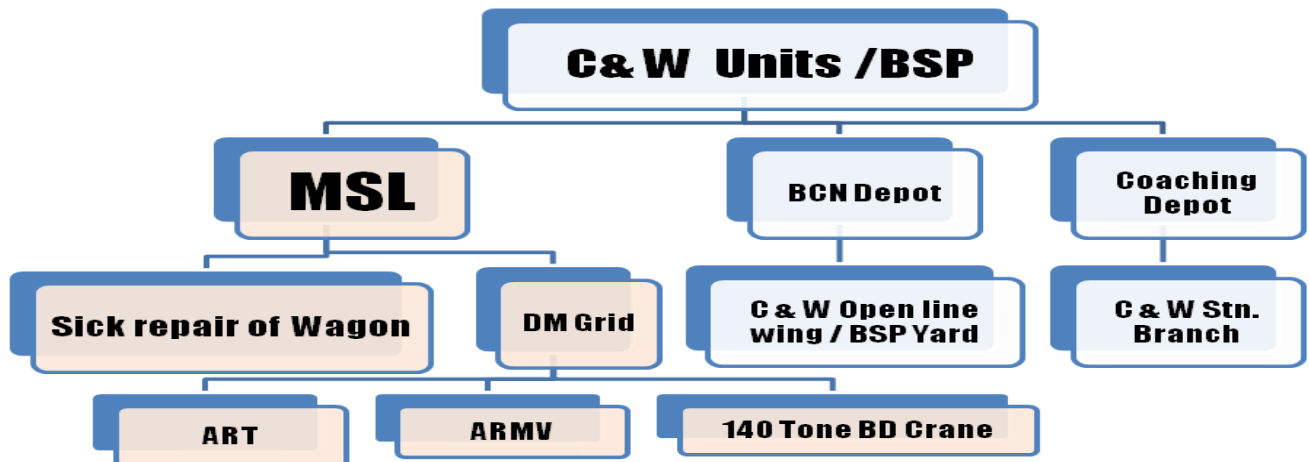
# **CHAPTER-I**

## **INTRODUCTION:**

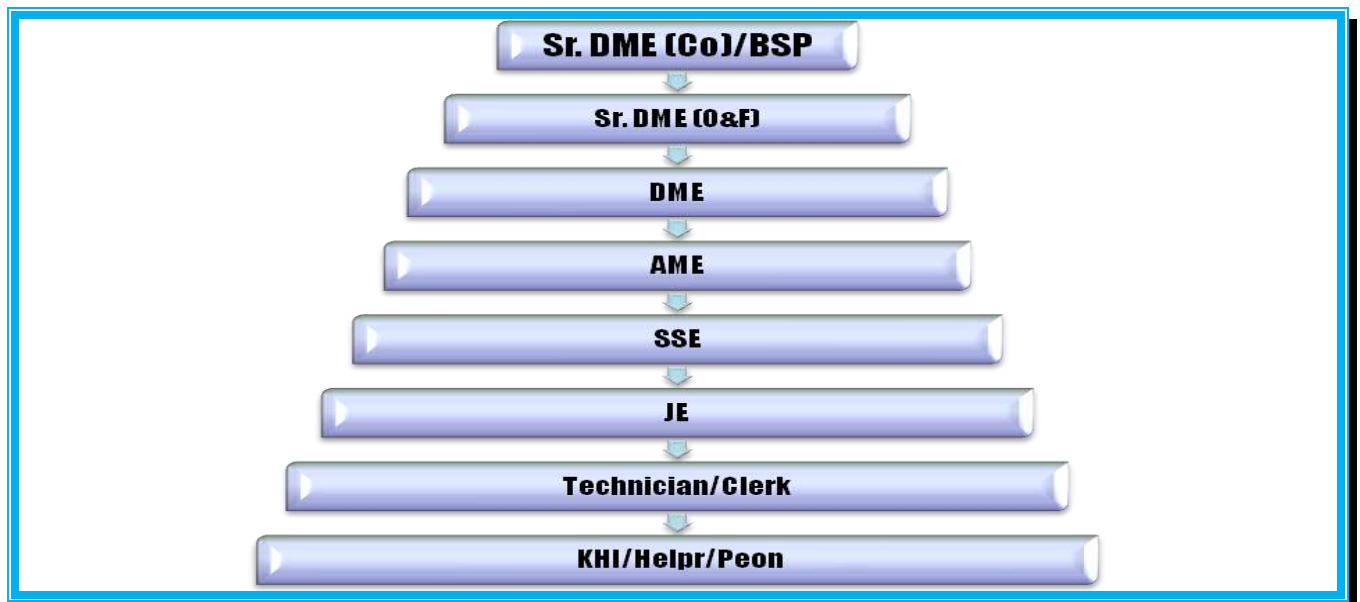
**1.0** The study of Major Sick Line (MSL)/Bilaspur of Mechanical Department in Bilaspur Division has been undertaken to review the need based requirement of staff with a view to optimize the utilization of manpower in reference to existing work load, yardstick, Multi-Skilling concept and outsourcing of some of the activities.

**1.1 Organization Set up of C & W Units (MECHANICAL DEPARTMENT)/Bilaspur:**

Organogram of C&W Points pertaining to Mechanical department existing in Bilaspur under the administrative control of Sr. DME (Co)/BSP :



**1.2 Administrative Organization Chart of MSL/BSP:**



**1.3 Brief descriptions of MSL/BSP:**

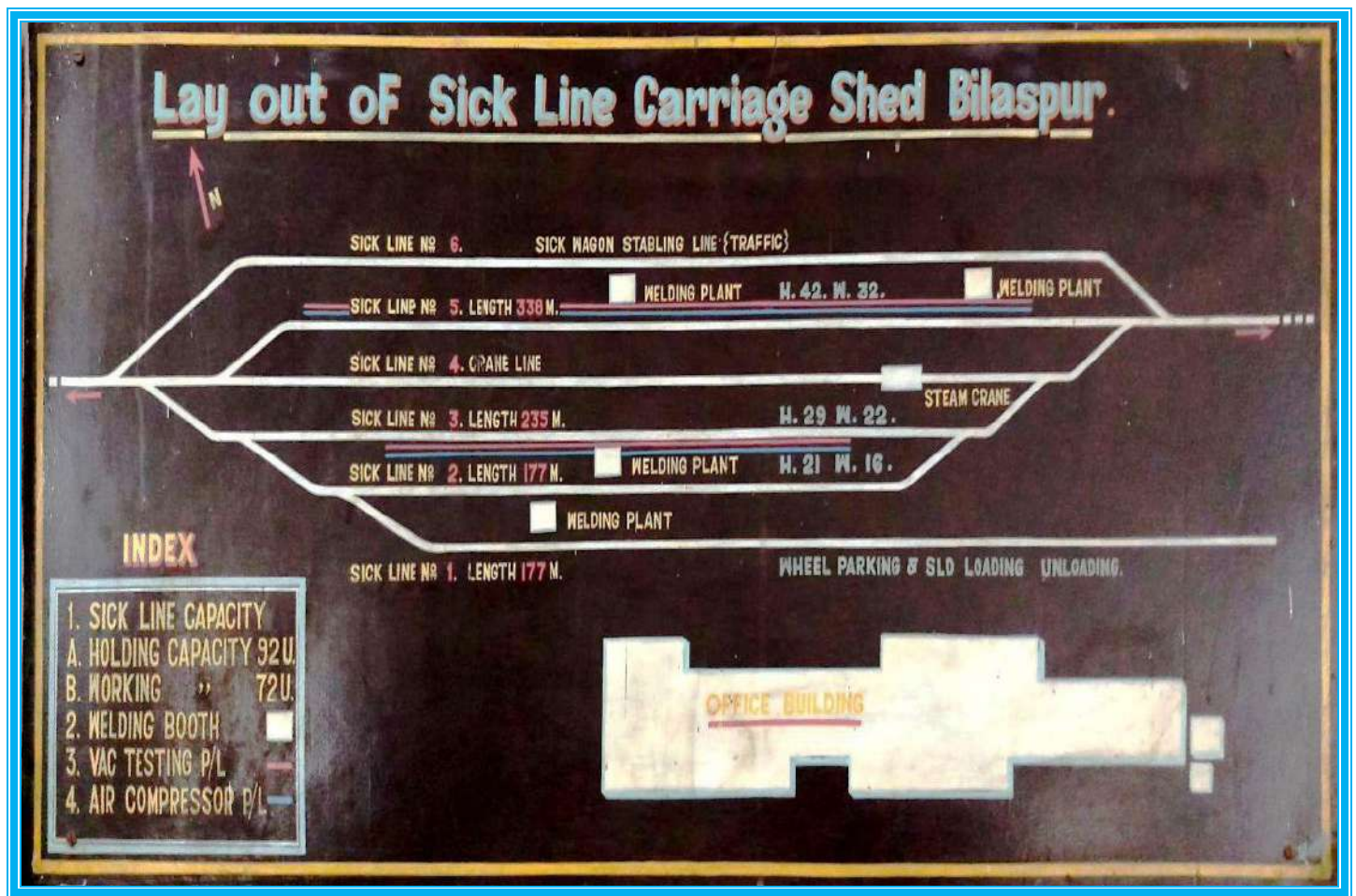
Major Sick Line (MSL) is one of the oldest C&W Units existing under Mechanical Department and functioning under the administrative control of Sr. DME (Co)/BSP. MSL is situated at approx. 02 KM (towards Raipur end) away from Bilaspur Railway Station from Bilaspur Railway Station.

MSL has the some salient features mentioned as under:

- I. Total length of 277 M nominated for RSP work of “complete renewal of Roof and Panel of 500 BCN Wagons with parking of IRC wagons at HWH end.
- II. Total length of 177 M nominated for RSP work of “complete renewal of Roof and Panel of 500 BCN Wagons.
- III. Total length of 235 M nominated for sick Wagon Raipur with parking of IRC Wagons at HWH end.
- IV. Crane line as well as Material Trolley Line for transportation of heavy Materials
- V. Total length of 336 M nominated for Sick Wagons repair with parking of IRC wagons at HWH end.
- VI. Under traffic for stabling Fit as well as Sick Wagons. Sometimes used for cutting IRC Wagons and Coaches.

#### 1.4 **Layout of MSL/BSP :**

Lay out of Major Sick Line/ BSP is as under:



**Description of the layout:**

The layout of the Major sick line Yard consist of Six rail Lines which are being utilized to perform various activities described as under:

- **Sick line No.-1& 2:** ---→ This Line is utilized for RSP (Rolling Stock Program) work (i.e. Re-habilitation of BCN Wagon) and the Line -01 is also used as Stabling Line for IRC Wagons. This Line has the Capacity of 15 Wagons (08-wheeled).Whereas the Line-02 is also used for Sick Repair having capacity of 08 Wagons (08-Wheeled ).
- **Sick line No. 3 :**---→ This Line is utilized for **Sick Repair work** . 50% of the Line is utilized for MLR of Wagons. This Line has the capacity of 15 Wagons (08-Wheeled).
- **Sick line No. 4:** ---→ This Line is Crane Line and also being utilized for Stripping work.
- **Sick line No. 5:** ---→ This Line is utilized for Sick repair & Stabling for IRC Wagons.
- **Sick line No. 6:** ---→ This Line is utilized by Operating for stabling the Sick Wagons

<b>1.5</b>	<b>Infrastructure Facility at MSL/BSP :</b> In order to make the working environment more productive, basic infrastructure has been provided at MSL premises mentioned as under :																														
	<ul style="list-style-type: none"> <li>➤ Staff Canteen is available</li> <li>➤ Cycle Stand for staff is available</li> <li>➤ Staff Rest Room with Staff locker is available.</li> <li>➤ Concrete Path Ways are provided in all the Lines.</li> <li>➤ Charging Facility of jumbo Platform Truck is available.</li> </ul>																														
<b>1.6</b>	<b>Details of Machines/Equipments available at Major Sick Line :</b>																														
	<table border="1"> <thead> <tr> <th>S#</th><th>Machines/Equipments</th><th>Total Nos.</th><th>Present Status of Machine</th></tr> </thead> <tbody> <tr> <td>1</td><td>Welding Machines</td><td>08</td><td>Working</td></tr> <tr> <td>2</td><td>Air Compressor</td><td>01</td><td>Working</td></tr> <tr> <td>3</td><td>Grinding Machine</td><td>01</td><td>Working</td></tr> <tr> <td>4</td><td>Vertical Drilling Machines</td><td>01</td><td>Working</td></tr> <tr> <td>5</td><td>Jambo Platform Truck</td><td>01</td><td>Working</td></tr> <tr> <td>6</td><td>Fork Lift Truck</td><td>01</td><td>Working</td></tr> </tbody> </table>	S#	Machines/Equipments	Total Nos.	Present Status of Machine	1	Welding Machines	08	Working	2	Air Compressor	01	Working	3	Grinding Machine	01	Working	4	Vertical Drilling Machines	01	Working	5	Jambo Platform Truck	01	Working	6	Fork Lift Truck	01	Working		
S#	Machines/Equipments	Total Nos.	Present Status of Machine																												
1	Welding Machines	08	Working																												
2	Air Compressor	01	Working																												
3	Grinding Machine	01	Working																												
4	Vertical Drilling Machines	01	Working																												
5	Jambo Platform Truck	01	Working																												
6	Fork Lift Truck	01	Working																												
<b>1.7</b>	<b><u>Methodology:</u></b> The following methodology has been adopted for conducting the study: <ul style="list-style-type: none"> <li>(i) Collection of relevant data,</li> <li>(ii) Examination of records,</li> <li>(iii) Direct observations regarding working of staff,</li> <li>(iv) Interaction with Supervisors &amp; staff ,</li> <li>(v) Critical Analysis,</li> <li>(vi) Applied Yardstick, outsourcing &amp; Need base requirement.</li> </ul>																														



## CHAPTER-II

### 2.0 OBSERVATIONS :

**2.1 Staff Position:** The cadre strength of Major Sick Line /BSP Unit based on data provided by Personnel department/BSP and as per data collected during the course of Work Study is as under:

S#	Designation	Sanction Strength	Actual Strength	Vacancy
1	Supervisor:	07	05	02
2	Ministerial:	05	06	-01
3	Artisan/Technician:	83	57	26
4	Gr. 'D'	13	14	-01
<b>TOTAL</b>		<b>108</b>	<b>82</b>	<b>26</b>

### 2.2 Category wise Cadre Strength of Major Sick Line Unit:

S#	Designation	Sanction Strength	Actual Strength	Vacancy
<b>Supervisor:</b>				
1.	SSE	05	05	00
2.	JE	02	00	02
<b>Sub-Total</b>		<b>07</b>	<b>05</b>	<b>02</b>
<b>Ministerial:</b>				
3.	OS	02	02	00
4.	Sr. Clerk	01	01	00
5.	Jr. Clerk	01	01	00
6.	Peon	01	02	-01
<b>Sub-Total</b>		<b>05</b>	<b>06</b>	<b>-01</b>
<b>Artisan/Technician:</b>				
7.	MCM/Fitting	18	18	00
8.	Tech.-I /Fitting	41	21	20
9.	Tech.-II /Fitting	07	03	04
10.	Tech.-III /Fitting	03	04	-01
11.	MCM/Mech.	03	02	01
12.	Tech.-I/Mech	11	09	02
13.	Tech.-II/Mech	00	00	00
<b>Sub-Total</b>		<b>83</b>	<b>57</b>	<b>26</b>
<b>Gr. 'D' Staff</b>				
14.	Helper	13	14	-01
<b>Sub-Total</b>		<b>13</b>	<b>14</b>	<b>-01</b>
<b>TOTAL</b>		<b>108</b>	<b>82</b>	<b>26</b>

### 2.3 Existing Deployment of Staff posted at MSL/BSP:-

Category wise deployment of Staff , posted under the In Charge of MSL Unit, at various place of working to cope the Work load is as under:

S#	Category	Sanc.	MSL	BCN	CNL	HQ/Vig	Zone	CCC	ART	CHG.	TOTAL	BCN Staff at MSL
1	SSE (C&W) In charge	01	01	00	00	00	00		00	00	01	00
2	SSE (C&W)	04	02	00	00	00	00	00	02	00	04	00
3	JE (C&W)	02	00	00	00	00	00	00	00	00	00	00
4	MCM (Fittg.)	18	14	00	02	00	00	01	01	00	18	00
5	Tech(F)-I	41	15	02	00	00	00	01	03	00	21	00
6	Tech(F)-II	07	02	00	00	00	00	00	01	00	03	00
7	Tech(F)-III	03	03	00	00	00	00	00	01	00	04	00
8	MCM(Weld.)	02	01	00	00	00	00	00	00	01	02	01
9	Tech (W)-I	05	03	00	00	00	00	00	00	00	03	00
10	Tech (W)-II	03	01	00	00	00	00	00	00	00	01	00
11	Tech (W)-III	00	00	00	00	00	00	00	00	00	00	00
12	MCM (Turn)	00	00	00	00	00	00	00	00	00	00	00
13	Tech(T)-I	01	02	00	00	00	00	00	00	00	02	00
14	Tech(T)-II	00	00	00	00	00	00	00	00	00	00	00
15	Tech(T)-III	01	00	00	00	00	00	00	00	00	00	00
16	Tech (Carp)-I	00	00	00	00	00	00	00	00	00	00	00
17	MCM (Cr/Driver)	01	00	00	00	00	00	00	00	00	00	00
18	Tech(C/D)-I	03	00	00	00	00	00	00	01	00	01	00
19	Tech(C/D)-II	00	00	00	00	00	00	00	00	00	00	00
20	Tech(C/D)-III	01	00	00	00	00	00	00	00	00	00	00
21	Tech(SPA)-I	01	02	00	00	00	00	00	00	00	02	00
22	Tech(SPA)-II	00	00	00	00	00	00	00	00	00	00	00
23	Tech(SPA)-III	00	00	00	00	00	00	00	00	00	00	00
24	Tech (Truck).I	00	00	00	00	00	00	00	00	00	00	00
25	Tech(B/Smith)-I	00	00	00	00	00	00	00	00	00	00	00
26	Tech.(Paint).II	00	00	00	00	00	00	00	00	00	00	00
27	Tech(Revr)-I	00	00	00	00	00	00	00	00	00	00	00
28	Tech(Revr)-II	00	00	00	00	00	00	00	00	00	00	00
29	Helper-I	13	00	00	00	00	00	00	00	00	00	00
30	Helper-II	00	09	00	00	01	02	01	01	00	14	00
31	Safaiwala	00	00	00	00	00	00	00	00	00	00	00
32	Safaiwala	00	00	00	00	00	00	00	00	00	00	00
33	Peon	01	01	00	00	00	00	00	00	00	01	00
34	Peon	00	01	00	00	00	00	00	00	00	01	00
<b>Total</b>		<b>108</b>	<b>57</b>	<b>02</b>	<b>02</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>10</b>	<b>01</b>	<b>78</b>	<b>01</b>

2.4	Details of staff nominated for attending Accident Relief Train (ART):											
In charge :												
S#	Name (Shri)					Desgn.				Unit		
1	A. K. Patra					SSE				MSL		
2	S. Kanhai					SSE				BCN		
Supervisor												
1	G.K. Choubey					SSE				MSL		
2	--					SSE				MSL		
Core Maintenance Gang:												

1	-----	MCM	MSL
2	Biswnath Sahu	Tech-I	MSL
3	Pali Paswan	Tech-I	MSL
4	Dinesh Kumar	Tech-III	BCN
5	Tulsi Ram Bhingwar	Tech-II	MSL

#### Major Sick Line Gang:

1	Man Singh	MCM	MSL
2	-----	MCM	MSL
3	P. L. Yadav	Tech-I	MSL
4	Rattan	Tech-I	MSL
5	K.T. Rao	Tech-I	MSL
6	Navratan Lal	Tech-I	MSL
7	Lal ji Dhobi	Tech-I	MSL
8	--	Tech-I	MSL
9	--	Tech-I	MSL

#### BCN Depot & yard

1	V. S. Pandey	MCM	BCN
2	P. Ramesh Babu	Tech-I	BCN
3	Mahesh Kumar	Tech-I	BCNY
4	--	Tech-I	BCN
5	V. K. Barik	Tech-I	BCN
6	--	Welder-II	BCN
7	S. Prasad	Helper-II	BCNY
8	Amarnath Yadav	Helper-II	BCN
9	Upendra Kumar	Helper-II	BCN

#### Coaching Depot

1	Md. Kayum Khan	MCM	CHG.
2	Bal Krishna	Tech-I	CHG.
3	Dilharam Lal	Tech-I	CHG.
4	Dinesh Kr, Jangde	Tech-I	CHG.
5	--	Helper-II	MYD

#### 140 T CRANE BSP

1	K. K. Rao	MCM	MSL
2	T. Rama Rao	C/Driver-I	BCN
3	Kanhaiya Lal	Tech-I	BCN
4	P. S. S Pillai	C/Driver-II	MSL
5	Ch. Jagdish	C/Driver-II	BCN
6	Sanjay Srivas	Tech.-III	MSL
7	----	Help.-II	BCN

#### 2.5 Working Hours:

The working time of Major Sick Line Unit is 07:00 to 11:00 & 13:00 to 17:00 Hrs. for 06-days in a week. Weekly Rest is fixed on Sunday.

#### 2.6 Main activities (Work load) of Major Sick Lines:

- I. Repair of Sick Wagons in MSL which includes Gas Cutting, & welding, Testing of Brake Power & related repairs in addition to repair in Body Gear and under-Gear.
- II. Repair of Sick Wagons in Section/Roadside Stations.
- III. Day to day Maintenance of ART-ARME-140T BD Crane.
- IV. Attending of Accident as and when required.
- V. FOB/Bridge Guarder Work with 140T BD Crane as and when required.
- VI. Collection of Materials from GSD/R and BCN Depot/BSP.

**VII.** Data recording of Sick Wagons with midnight figure repairing to C&W Cnl. Disposal of Condemn Wagons.

**VIII.** Material handling inside Consumable store and RS Store.

**IX.** Maintenance of Office with field staff in absence of Ministerial Staff.

**X.** Computer work preparing Official Letters, preparation of (OT Bills, Cond report of IRC Wagons, Data recording of RSP work, RR Charges and Cost of damage of rolling stock in Various Pvt. Siding over BSP Division.

**XI.** Making provision of Staff for the activities of CWC, Fueling Point, Sr. DME's Office, CME's Office, BCN Depot & Coaching Complex.

Disposal of released Stores material.

**XII.** Operation of crane Driver, Fork-lift & jumbo Driver etc.

**XIII.** Collection of scrape from section, Sick line and then disposed off to GSD/ R by Truck or by loading in a wagons.

**XIV.** Collection of (Excluded Fitting) of Condm. & sold Wagons and their disposal.

## **2.7 Performance/Out turn of MSL/BSP :**

Performance of Major Sick Line for the Last 3-Years are as under:

<b>S#</b>	<b>Years</b>	<b>Avg.nos. of Wagon repaired</b>	<b>Remarks</b>
1	2015-16	11 Wagons per day	
2	2016-17	08 Wagons per day	
3	2017-18	10 wagons per day.	
Avg. per day		10 sick wagons repaired	

## **2.8 Details of Outsourcing activities:**

In order to enhance the productivity repair based activities, presently the major part of Sick Wagon repair activities has been shifted on Contractual work and the description of which is as under:

<b>S#</b>	<b>Name of Work</b>	<b>Status</b>	<b>W.e.f.</b>
1	Complete renewal of Roof and Body repair with supply of material for 5000 BCN Wagons	Existing	Since January-2016
2	Complete renewal of End Wall, Side wall and Flooring of 250 nos. of BOXN Wagons at MSL .Bilaspur with Supply of Material.	Existing	Since December-2016
3	Cleaning activity	Existing	



## **CHAPTER-III**

### **3.0 CRITICAL ANALYSIS & RECOMMENDATIONS:**

It is evident that Capital & labour are the basic factor of an organization and thereof human resource is one of the most indispensable assets of the organization. Continuous updating & designing of job descriptions, reduction of number of Categories for job enrichment through Multi-skilling, training and responsibilities are need of the time. Therefore, rightsizing of Manpower substantially optimizes a system to work with high economy and with more productivity.

It is the need of hour that human resources should be utilised effectively to cater the existing work load and it is the prime responsibility of the Management to do so, especially for an Organization like Indian Railway.

To be relevant and keeping the rapid change being taken place in Railway working system during recent time in view, it is observed that the efficiency of the present working System may be improved by capitalizing the force of available Man power on core activities and by adopting policy of Outsourcing for performing the non Core activities.

### **3.1 Assessment of Requirement of staff Section/Activity-wise for Major Sick Line/BSP:-**

The existing C&W staff at MSL/BSP are distributed in different sections such as Sick line, DM Grid, Store Room, SSE office and other units for sick repair of wagons and maintenance of ART/ARMV/Crane. The section-wise requirement of staff has been assessed based on the present workload, yardstick, outsourcing activities, need base requirement and discussions held with Supervisors/staff which is as under:-

#### **3.1.1 Sick Repairs of Wagon:**

At present 42 staff (04 SSE, 38 Tech/ Helper ) are working in Sick Line for sick repair of average 10 sick wagons per day. Staff of this section deals with wheel changing, wheel loading/unloading, scrap loading, gauging of derailed wagons, Body panel welding, Floor channel welding, door repair, CBC & Draft gear changing, K/pin changing, supervision of outsourcing work ( i.e. Rebuilding of BOXN wagon), sectional work & record keeping. The staff are deployed in 03-04 Gangs as per work load.

The requirement of staff for repair of sick wagons in Sick Line is assessed as under:

<b>Gen. Shift/ Activity (7.00-17.00 Hrs)</b>	<b>Existing distribution of avg. no. of staff</b>				<b>Proposed distribution of avg. no. of staff</b>			
	Sup.	Tech	Help	Welder/ Gas cutter	Sup.	Tech	Help	Welder
<b>Gang-I</b> (for Sick repairs of wagons)	00	04	01	02	00	03	02	02
<b>Gang-II</b> (for Sick repairs of wagons)	00	04	01	02	00	03	02	02
<b>Gang-III</b> (FittingGroup) (for Sick repairs of wagons)	00	04	01	02	00	04	02	02
<b>Air Brake Testing Group</b>	00	02	01	00	00	02	01	00
Scrap collection /disposal,Wheelloading,mat erial collection etc.	00	04	02	00	00	04	02	00
Supervision of Outsourcing work	01	00	00	00	01	00	00	00
Sick Line record keeping, documentation etc.	00	02	01	00	00	02	01	00
Line Duty/Sectional work	01	01	00	00	01	01	00	00
In-charge/ Sick Line	01	00	00	00	01	00	00	00

<b>Total</b>	<b>02</b>	<b>21</b>	<b>07</b>	<b>06</b>	<b>02</b>	<b>19</b>	<b>10</b>	<b>06</b>
Rest giver @ 16.7 %	01	07	02	02	01	03	02	01
Leave Reserve@ 12.5 %						03	02	01
<b>Total</b>	<b>03</b>	<b>28</b>	<b>09</b>	<b>08</b>	<b>03</b>	<b>25</b>	<b>14</b>	<b>08</b>

The requirement of staff for sick repair of Avg. 10 wagons per day as per Yardstick is assessed as under:

Yardstick of manpower requirement for sick wagon repair is @ 5 men / wagon.

Total Staff required for Avg. 10 sick wagon repair per day =  $5 \times 10 = 50$

Requirement of Supervisor = 01 Supervisor as In-charge + 02 for supervision of General shift work.

Thus, the requirement of staff for sick repair of wagons comes to 53 (03 Supervisor + 50 Technician/Helper) against existing deployment of 42 staff. Hence, 11 more staff are proposed.

However, it is suggested that welding activity of wagons in Major Sick Line/BSP should be outsourced likewise ROH Depot/PP Yard/BIA, WRS/R, DLS/R & ELS/R which will be monetary beneficial vis-à-vis present system.

### 3.1.2 **DM Grid/ BSP:**

Disaster Management Grid/ Bilaspur is functioning under the control of Major Sick Line/BSP. At present 14 staff (02 SSE, 08 Technician, 03 Crane Driver, 01 Helper) are working in Disaster Management (DM) Grid/BSP for day to day maintenance of ART/ARMV/140T BD Crane and attend accident cases along with nominated Breakdown staff. Out of 14 staff, 05 staff (01 SSE + 04 Tech.) are deployed in ART/ARMV and 09 staff (01 SSE, 02 MCM, 02 Technician, 03 Crane Driver & 01 Helper) in 140 T BD Crane including RG utilised for maintenance work & chowkidari work. Out of 14 staff, 09 staff are deployed from Major Sick Line and 05 staff deployed from BCN Depot. Nominated staff from BCN Depot/Major Sick Line/Coaching Depot attend the accident cases whenever required. It is observed that there is no separate staff provided for maintenance of ARMV.

The requirement of staff for DM Grid is assessed as under:

Activity/section	Existing distribution of avg. no. of staff for maintenance work			Proposed distribution of staff for maintenance work		
	Sup.	Technician	Helper	Sup.	Tech.	Helper
ART	01	04	00	01	10	00
ARMV	00	00	00	01	05	00
140T BD Crane	01	07	01	01	10	00
<b>Total</b>	<b>02</b>	<b>11</b>	<b>01</b>	<b>03</b>	<b>25</b>	<b>00</b>

Thus, the requirement of staff for core maintenance of ART/ARMV/140 T BD crane in DM Grid comes to 28 (SSE/Tech./Helper) including RG/LR as per Yardstick and need base requirement. Hence, work study team proposes for 14 more staff in DM Grid/BSP for proper maintenance and keeping in good condition of ART/ARMV/Crane. The required staff for DM Grid may be provided from Major Sick Line, BCN Depot & Coaching Depot/BSP as per existing deployment & need. Out of proposed 28 staff, 14 staff may be provided from MSL and 14 staff arranged from BCN Depot/Coaching Depot respectively.

However, work study team feels that existing 14 staff are sufficient for day to day maintenance of ART/ARMV/Crane as there is less movement of ART/ARMV due to reduction in accident cases comparatively to earlier time.

### 3.1.3 **SSE Office:**

At present 09 staff (01 SSE, 04 Tech., 01 OS, 02 Sr. Clerk, 01 Peon) are deputed in SSE office. Out of 09 staff, 01 SSE is working as overall In-charge of MSL/BSP, 02 Sr. Clerk

deputed for Rolling stock related work, M&P/T&P, Industrial Gas & its distribution, uniform matter, Recoupment of cash imprest etc., 01 OS for dealing with Pass/PTO of 200 staff of MSL, Main Yard/Chg., LIL/AKT, 02 Technician for Establishment related work, D&A cases, RTI cases, staff grievance related work, correspondence work, preparation of MCDO, 01 Technician for supervision & record maintenance of outsourcing work & misc. work and 01 Peon for Dak collection & distribution & misc. work. Considering existing workload, 09 staff in SSE office are sufficient and justified.

However, Work study team suggests that 05 Technician/Helper may be kept under the administrative control of SSE (I/Charge)/MSL/BSP and they may be utilized for RG/LR/Training/misc. work as per requirement.

#### **3.1.4 Store section:**

At present 05 staff (01 OS, 04 Helper) are deputed for material collection/chasing from GSD, WRS/R, BCN Depot, maintaining Stock/Non-stock items, issue of materials to staff, preparation of requisitions for store items, disposal of scrap, Imprest, maintaining records/registers, material handling etc. On assessing the requirement for the above purpose, existing 05 staff are sufficient and justified.

#### **3.1.5 Material Handling:**

At present 02 Helper are utilised for material handling work and found justified.

#### **3.1.6 Night Position:**

At present 02 staff (Technician) are working for Night position in General shift and Night shift. Staff of this section deals with preparation of Night position related with sick wagon holding, daily receiving & dispatch of sick wagons, IRC wagons & submission to control office & officers.

*Considering the existing workload, 02 staff are sufficient and justified to carry out the work of Night position.*

#### **3.1.7 Chowkidari work:**

At present 02 staff (Technician/Helper) are deployed for chowkidari work. Out of 02, 01 Chowkidar is deployed in Sick Line and 01 deployed in ART siding in night shift. At present maintenance staff provides Rest to both Chowkidar. The requirement of Chowkidar for Major Sick Line comes to 01 staff in sick line + 01 in ART = 02 + 01 RG/LR = 03.

*Considering the existing workload, 03 staff are sufficient and justified to carry out the work of chowkidar.*

#### **Cleaning Activity:**

At present cleaning work in Major Sick line is outsourced.

#### **3.1.8 Other Units/offices:**

##### C&W Control:

At present 02 staff (Crane Driver) are working under C&W/Control office.

##### CCC (Dsl)/BSP:

At present 03 staff (Tech.) are working under CC(Dsl)/BSP.

##### BCN Yard/BSP:

At present 02 staff (01 Sr. Tech.) are working under BCN Yard office.

##### Coaching Depot/BSP:

At present 01 staff (Welder) is working under Coaching Depot/BSP.

##### GM's Office:

At present 01 staff is working under GM's office.

##### CVO's office:

At present 01 staff (Helper) is working under CVO's office.

CRSE's office:

At present 01 staff is working under CRSE office.

*It is suggested that 11 staff who are presently working in other units/offices may be directed to work at their respective place of posting i.e. MSL/BSP.*

### 3.2 Existing & Proposed Deployment of staff section-wise at Major Sick Line/Bilaspur :

S#	Name of Section	Present deployment of Staff				Proposed deployment of staff			
		SSE/ JE	Tech./ Welder	Helper/ Peon	Minis terial	SSE/ JE	Tech. /Weld er	Help er/ Peon	Minis terial
1	Sick Line (sick wagon repair)	02	39	00	00	03	50	00	00
2	SSE office	01	04	01	03	01	04	01	03
3	Store section	00	00	04	01	00	00	04	01
4	Night position	00	02	00	00	00	02	00	00
5	Material Handling work	00	00	02	00	00	00	02	00
6	DM Grid (ART/ARMV/Crane)	02	06	01	00	03	10	01	00
7	Chowkidari work	00	00	02	00	00	00	02	00
	<b>Sub Total</b>	<b>05</b>	<b>51</b>	<b>11</b>	<b>04</b>	<b>07</b>	<b>66</b>	<b>10</b>	<b>04</b>
	<b>Other Units:</b>								
8	C&W Control:	00	02	00	00	00	02	00	00
9	CCC (Dsl)/BSP:	00	02	01	00	00	02	01	00
10	BCN Depot/BSP:	00	02	00	00	00	02	00	00
11	Coaching Depot/BSP:	00	01	00	00	00	01	00	00
12	Zone Office:	00	00	01	00	00	00	01	00
13	CVO's office:	00	00	01	00	00	00	01	00
14	CRSE's office:	00	00	01	00	00	00	01	00
	<b>Sub Total</b>	<b>00</b>	<b>07</b>	<b>04</b>	<b>00</b>	<b>00</b>	<b>07</b>	<b>04</b>	<b>00</b>
	<b>Total</b>	<b>05</b>	<b>58</b>	<b>15</b>	<b>04</b>	<b>07</b>	<b>73</b>	<b>14</b>	<b>04</b>
	<b>GRAND TOTAL</b>	<b>82</b>				<b>98</b>			

### 3.3 Summary of calculation of requirement of staff at Major Sick Line/BSP (As per Para No. 3.1 & 3.2) :

Sanctioned strength = 108

On Roll strength = 82

Staff requirement = 98

**Thus, Identified Surplus Post = 108 – 98 = 10.**

#### Sanction Vs Requirement

Sanction	Actual	Requirement	Surplus
108	82	98	10



### 3.4 Summary of Sanction, Present & Proposed staff strength at Major Sick Line (C&W)/BSP:

S#	Designation	Sanction strength	Existing on Roll strength	Proposed Strength	No. of identified Surplus post to be surrendered
<b>Supervisor:</b>					
1.	SSE	05	05	05	00
2.	JE	02	00	02	00
<b>Sub-Total</b>		<b>07</b>	<b>05</b>	<b>07</b>	<b>00</b>
<b>Ministerial:</b>					
3.	OS	02	02	02	00
4.	Sr. Clerk	01	01	01	00
5.	Jr. Clerk	01	01	01	00
6.	Peon	01	02	01	00
<b>Sub-Total</b>		<b>05</b>	<b>06</b>	<b>05</b>	<b>00</b>
<b>Artisan:</b>					
7.	MCM/Fitting	18	18	18	00
8.	Tech.-I /Fitting	41	21	36	05
9.	Tech.-II /Fitting	07	03	04	03
10.	Tech.-III /Fitting	03	04	03	00
11.	MCM/Mech.	03	02	03	00
12.	Tech.-I/Mech	11	09	09	02
13.	Tech.-II/Mech	00	00	00	00
<b>Sub-Total</b>		<b>83</b>	<b>57</b>	<b>73</b>	<b>10</b>
<b>Helper:</b>					
14.	Helper	13	14	13	00
<b>Sub-Total</b>		<b>13</b>	<b>14</b>	<b>13</b>	<b>00</b>
<b>TOTAL</b>		<b>108</b>	<b>82</b>	<b>98</b>	<b>10</b>

### 3.5 RECOMMENDATIONS & SUGGESTIONS:

On being summarized all the above facts, relevant collected data and observations derived through critical analysis, the following recommendations and suggestions are made:

**3.5.1** Out of total sanctioned of 108 posts (Actual strength 82), the requirement of staff for Major Sick Line/BSP comes to 98. Thus, 10 vacant posts of Technician category are found surplus, should be surrendered from MSL/BSP of Mechanical Department.

**3.5.2** The none-core activities of MSL/BSP like welding activity of wagons should be outsourced so that attention on Core-Activities can be concentrated more and thereof it would be monetary beneficial vis-à-vis present system. At present welding activity of wagons in ROH Depot/PP Yard/BIA, WRS/R, DLS/R & ELS/BIA is outsourced.

#### Suggestions:

**3.5.3** Safety Equipments should be provided properly to staff working in safety category.

**3.5.4** Artisan staff should follow safety rules during working and proper counseling should be provided to Artisan/Helper time to time in this connection.

### 3.6 **Review of Draft Study Report:**

In Reference to the remarks furnished by the Office of Sr. DME (Co)/BSP vide letter no. यांत्रिक/बिलासपुर/2018/008/Work Study MSL dated 03.02.2018, the Draft report has been reviewed critically and the recommendations made in the Draft study have been revised accordingly.

The Para-wise remarks on the above draft study report have been examined and it is pointed out that the study of Major Sick Line/Bilaspur has been conducted to review the existing workload, requirement of staff and optimum utilization of manpower in view of available Yardstick, need base requirement and proposed outsourcing of some of the non-core activities. In the work study report, the requirement of staff has been assessed 98 considering section-wise requirement for MSL/BSP and staff deployed in other units/offices.

The Para-wise observations to the remarks furnished by Sr. DME (Co)/ Office/BSP are as under:-

<b>Para No.</b>	<b>Sr. DME(Co)/BSP/Office's remarks</b>	<b>Work Study Team's observations after reviewing the remarks</b>
1.	Existing sanctioned cadre of MSL is 93 but 108 as mentioned in the draft report. The revised cadre strength was issued vide office order No. DPB/37/2017 dated 12.12.2017. There is no change in the sanctioned strength of Ministerial cadre. The sanctioned strength of MSL/BSP is only 93 against requirement of 98 staff as recommended in the draft report. Hence there is a shortfall of 05 posts in sanctioned cadre.	<p>In this regard it is pertinent to mention that the Cadre strength of MSL/Bilaspur as mentioned in the work study report (i.e. 108) is as per cadre furnished vide Sr. DPO/BSP's office letter dated 10.08.2017 and SSE/MSL/BSP's cadre statement for the month of February 2018 (Copy enclosed). However, work study team has considered 93 as sanctioned cadre of MSL.</p> <p>In the draft study report, the total requirement of staff for Major sick line/BSP including other units has been assessed 98 (Ref. Para-3.1 &amp; 3.2). But actual requirement of staff for Major Sick Line activities comes to 87 (98-11) since 11 staff deployed in other units/offices are not being utilised in MSL. Thus considering 93 as sanctioned cadre of MSL/BSP, 06 (93-87) posts are still surplus and recommended for surrender. Therefore, the justification of shortfall of 05 posts in sanctioned cadre is not agreed to.</p>
2.	Process is being initiated for outsourcing of noncore activity of welding in line with ROH Depot/PP Yard/BIA, WRS/R etc.	It is agreed as per remarks that outsourcing of welding activity of wagons is under process. Therefore, it is pointed out that after outsourcing of welding activity, average 5 staff engaged in welding work will be surplus and may be utilised in core activities.
3.	Personal protective equipments i.e. Industry Safety Shoes, Helmets, Leather Apron etc. are being provided to staff.	This is appreciated.
4.	Process is also being initiated	It is agreed as per remarks that process has

	for bringing back all the staff enrolled at MSL but working elsewhere.	been started for bringing back all 11 staff of MSL who are deployed in other units/offices. Therefore, it is pointed out that after getting back 11 staff and outsourcing of welding activity, the staff position of MSL will be 71 On Roll staff + 11 + 05 = 87 which is sufficient and justified.
--	--	---

Thus, keeping the above facts in view, the revised requirement of Staff strength for Major Sick Line/BSP is as under:

**Sanctioned Strength = 93**

**On Roll Strength = 71 (MSL) + 11 (other Units) = 82**

**In the draft study report, staff requirement was assessed by considering MSL activities + staff deployed in other Units = 87+11=98**

**Now, the Staff Required for MSL (Excluding other Units) = 87**

**Therefore, the net identified Surplus posts are recommended for surrender = 93-87 = 06.**

**3.7 Summary of Revised calculation of requirement of staff for MSL/BSP after reviewing the remarks on the draft study report:**

	Sanction Strength	On Roll Strength		Proposed requirement in Report		Total Proposed Requirement For MSL	Net identified surplus posts
		At MSL	At Other Units	For MSL	For Other Units		
	A	B	C	D	E	F	A-F
<b>Initial</b>	108	71	11	87	11	98	10
<b>Revised</b>	<b>93</b>	<b>71</b>	<b>11</b>	<b>87</b>	<b>00</b>	<b>87</b>	<b>06</b>

**Hence, in view of above, the Study report is finalised with revised recommendation for surrender of 06 posts of Technician category from MSL/Bilaspur and Surrender Memo may be issued accordingly.**

## **CHAPTER-IV**

### **4.0 FINANCIAL EVALUATION & RESULTS:-**

#### **Savings due to surrender of 06 identified surplus posts:-**

<b>Design.</b>	<b>Level (7<sup>th</sup> CPC)</b>	<b>G.P. (6<sup>th</sup> CPC)</b>	<b>Pay Structu re (7<sup>th</sup> CPC)</b>	<b>No. of Post to be surren dered</b>	<b>Mean pay of the level</b>	<b>Cost per Month per staff (Mean Basic pay+ D.A. @ 5%)</b>	<b>Total cost per month (in Rs.)</b>	<b>Total cost per year (in Rs.)</b>
Tech-Gr.I	Level-5	2800	29200- 92300	03	60750	63787	191361	2296332
Tech. Gr.-II	Level-4	2400	25500- 81100	03	53300	55430	166290	1995480
<b>TOTAL</b>				<b>06</b>				<b>4291812</b>

Thus, recurring savings to the tune of Rs. 42,91,812 say Rs. 43 lakh Per annum can be achieved due to surrender of 06 posts of Technician category from Major Sick Line/BSP of Mechanical Department in Bilaspur Div. and surrender memorandum to be issued by Sr. DPO/BSP/SECR.

**-x-x-**