

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/E(G)/R/18-19/ 809

दिनांक Dated: 14.06.2018

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

Sub: Work study on "Review of existing cadre strength of Power Line units of Electrical(G) department in Raipur Division."

Ref.: This office letter No.WS/ E(G)/R/18-19/538 dated 17.04.2018.

The work study had been conducted to review the existing cadre strength of Power Line Units in Electrical (G) Department of Raipur Division in view of existing workload, requirement of staff, outsourcing activities and optimum utilization of manpower and was containing recommendation for surrender of 11 surplus posts of Tech./KSI from Power Line units of Electrical(G) department in Raipur Division The study report had been sent to your office vide reference (1) to furnish remarks on the draft. However, no comments have been received so far.

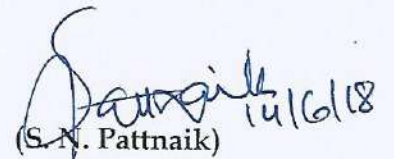
Therefore the report is finalised with recommendations for surrender of 11 surplus vacant posts of Tech./KSI from Electrical (G) Department of Raipur Division. And it is requested that suitable instructions may be given to concerned Officers for implementation of the work Study report and copy of surrender memorandum may be sent to this office so that progress of implementation of work study can be advised to Railway Board accordingly.

This has approval of SDGM.

(S. N. Pattnaik)
Asst. Work Study Officer
For Sr. Deputy General Manager

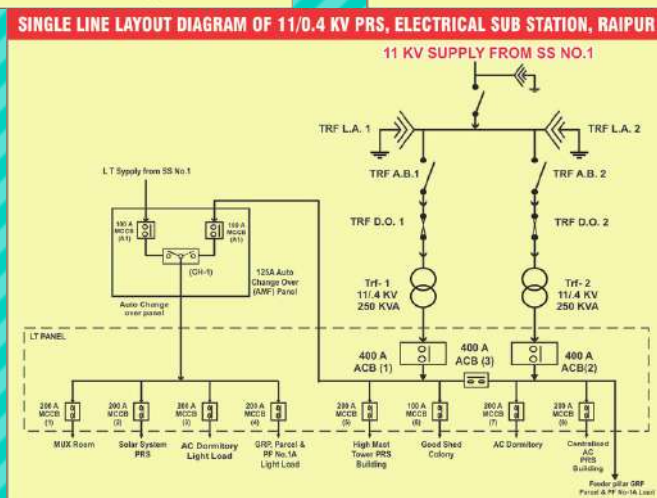
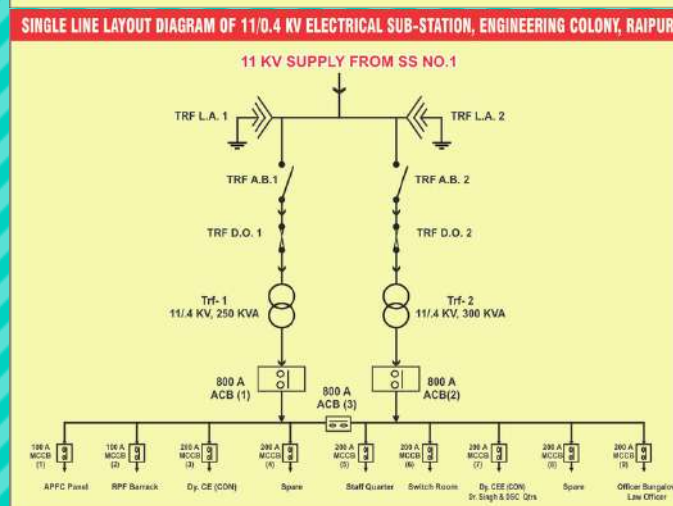
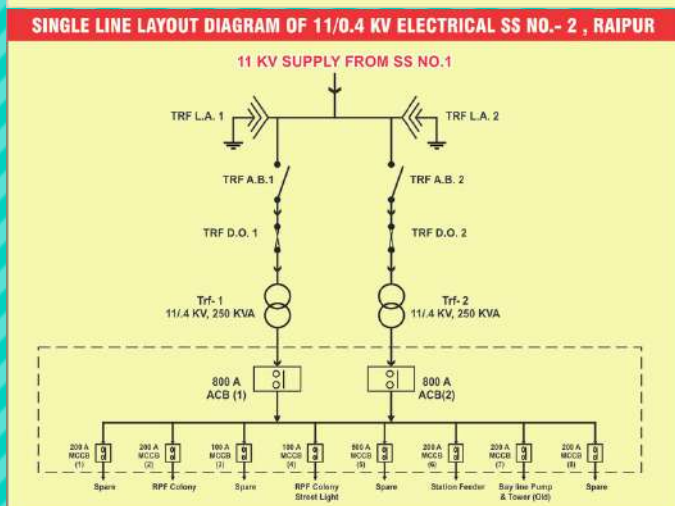
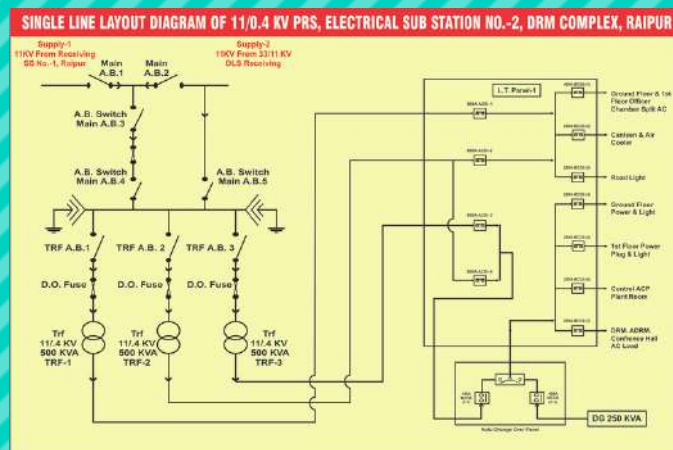
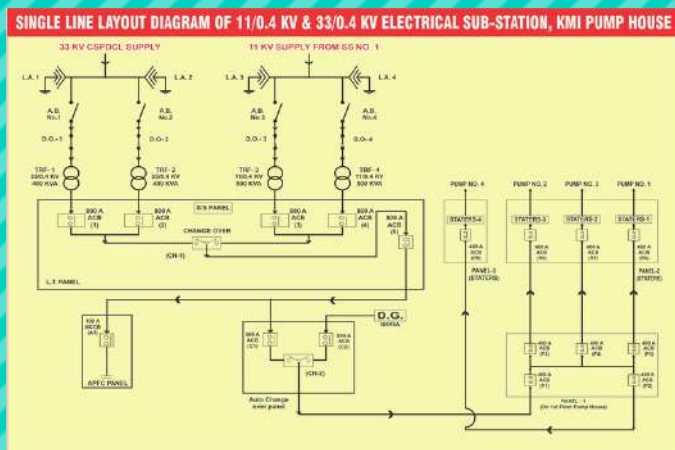
Copy is forwarded to:-

- 1) The Executive Director, E&R (ME), Railway Board for kind information.
- 2) Secretary/SECR for kind information to GM.
- 3) CEE, CPO/ SECR/ BSP for kind information.
- 4) Sr. DEE(G)/R, Sr.DPO/R for information and necessary action.


(S. N. Pattnaik)

Asst. Work Study Officer
For Sr. Deputy General Manager

Encl: 01 work study report.



REVIEW OF CADRE STRENGTH VIS-À-VIS WORK LOAD OF POWER LINE UNITS

of Electrical(General) Department
in Raipur Division.



SOUTH EAST CENTRAL RAILWAY
BILASPUR

REVIEW OF EXISTING STAFF STRENGTH
VIS-A-VIS WORKLOAD
OF POWER LINE UNITS OF ELECTRICAL (G)
DEPARTMENT IN RAIPUR DIVISION

GUIDED BY
SRI S. K. GUPTA
SR. DY. GENERAL MANAGER

LED BY
SRI S.N. PATTHAIK
ASST. WORK STUDY OFFICER

CONDUCTED BY

SRI A.C. BEHERA
CH. WORK STUDY INSPECTOR

SRI ANSHUMAN HALDER
WORK STUDY INSPECTOR

WORK STUDY CELL
S. E. C. RAILWAY
BILASPUR
STUDY NO.
SEC/01/2018-19

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SUMMARY OF RECOMMENDATIONS

Rec. No.	Description	Para Reference
	<u>RECOMMENDATIONS:</u>	
1.	As per details given in Para 3.1 to 3.15, the requirement of staff for Power Line units of Electrical(G) department comes to 271 against sanction of 282 staff. Thus 11 surplus posts Tech./KSI/Helper should be surrendered from Electrical(G) department /Raipur division.	3.8.1
	<u>Suggestions:</u>	
2.	It is suggested that the number of Group D categories (Khalasi, Helper, Chowkidar) should be reduced to minimum duly updating and redesignating as MTS by application of multi skilling/multi trade concept.	3.8.2

CHAPTER-I

INTRODUCTION

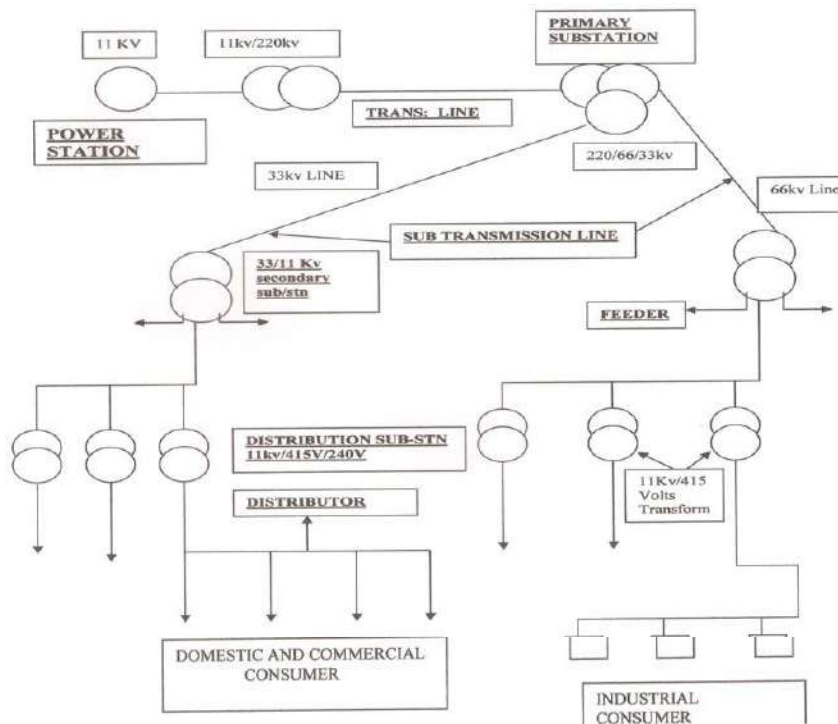
1.0 Power Supply Units Of Electrical (G) Department /Raipur Division:

1.1 INTRODUCTION

Distribution system links the bulk power sources to the end user facilities. It comprises of Distribution sub-stations, primary feeders, distributors and consumer services.

Power from the generating station, after being stepped up to extra high voltage (220KV) is carried through transmission lines to a sub-station where the voltage is stepped down to 66 KV (Fig.1). This sub-station is called the primary sub-station. From the primary sub-station, sub-transmission lines carry power to secondary sub-stations, where the voltage is stepped down to 11 KV. From here, the power is carried through primary distribution lines (also called feeders) to distribution sub-stations. At distribution sub-station, the power is further stepped down from 11 KV to 415/240Volts. The distribution sub-stations are situated at convenient locations as far as possible nearer to the load centre. From the distribution sub-station, power is supplied to the consumers (domestic, commercial, industrial etc.) through secondary distribution lines (also called distributors).

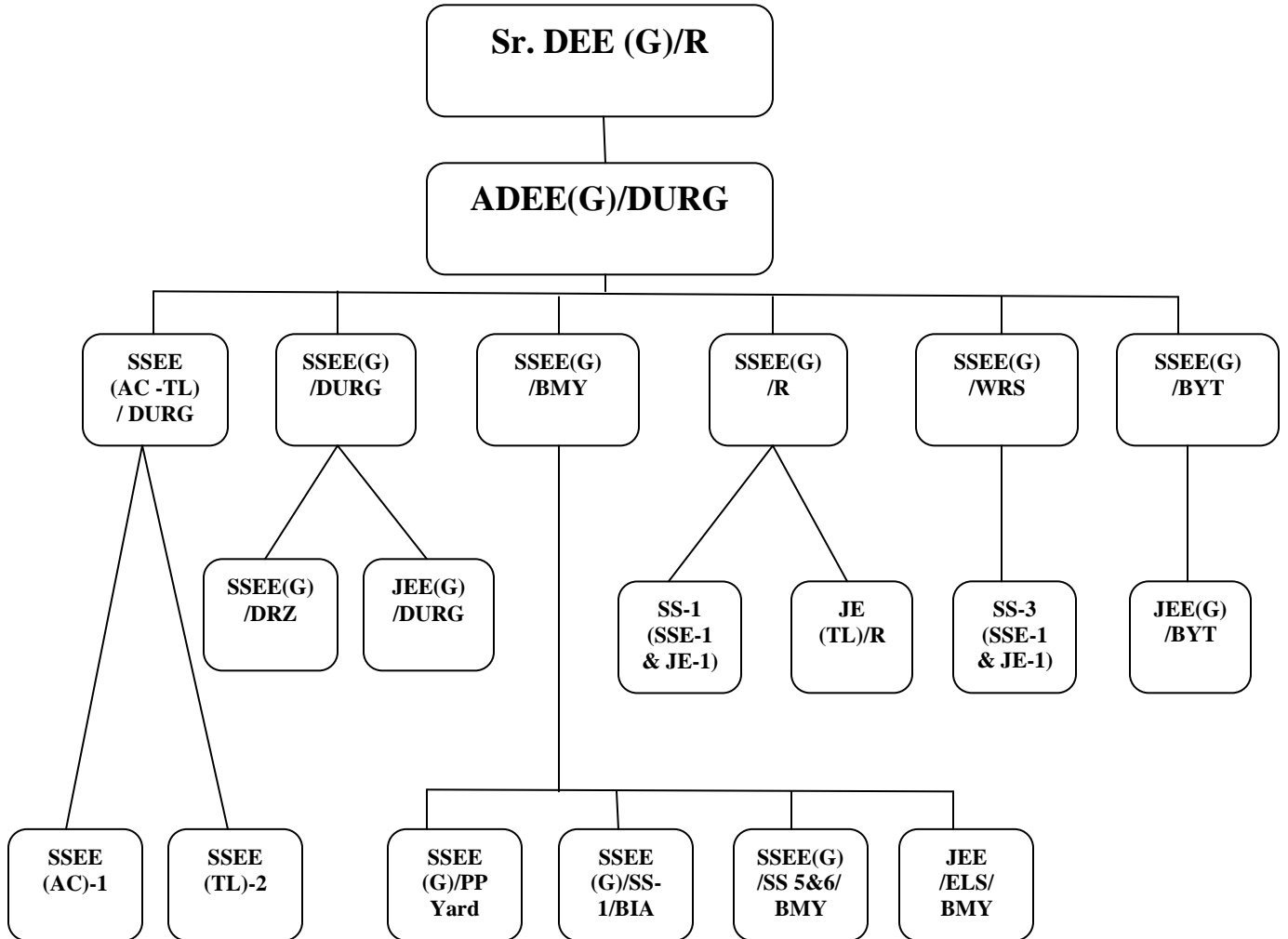
Schematic diagram of power supply



1.2 The study of Power Line Units/offices of Electrical (G) Department in Raipur Div. has been undertaken to review the existing workload, requirement and effective

utilization of staff.

1.3 ORGANISATION STRUCTURE:



1.4 The Power Line Units are working under the control of Sr.DEE(G)/Raipur . There are 04 PL Units over Raipur Division which are as under:

S. #	Name of PL Unit	S. #	Name of PL Unit
1.	SSEE(G)/Durg	3.	SSEE(G)/R
2.	SSEE(G)/BMY	4.	SSEE(G)/WRS
5.	SSEE(G)/SS-3/R	6.	SSEE(G)/BYT

1.5 Activities of PL Units:

The following activities are carried out by staff of Power Line units:

- (i) Receiving 11KV and step down to 440V, 3-phase AC and distribution to Railway Colonies, service building, Shed/Workshop etc.
- (ii) Schedule and unscheduled maintenance work of SS and OH line/equipments.
- (iii) Replacement of over age equipments and attending other failures.
- (iv) Repairing of damaged equipments.
- (v) Thermal Vision camera for detecting temperature beyond permissible limit over OHE and feeder lines, AT, CB/BM pole repairing, contact resistance measurement.
- (vi) POH work of SS and overhead equipments.
- (vii) Pre-monsoon and post monsoon tree trimming, bonding, earthing and earth resistance checking.
- (viii) Loading/Unloading of materials.
- (ix) Cleaning, Painting and up keeping of substation, office & store.

Normally, PL equipment is maintained in three ways as follows.

- a) Routine Maintenance
- b) Periodic Maintenance
- c) Condition based Maintenance

In Routine maintenance, activities involved which are essential for day to day working like checking of Oil level, colour of silica Gel in Breather etc.

In Periodic maintenance, activities involved are that type of maintenance activities which are not necessary to be done so frequently and ensures the working of the transformer over a longer period such as Oil testing, measuring IR value etc.

It is established that over maintenance of any equipment leads to more number of failures. Hence the present trend is to minimise the maintenance which can be achieved through condition based monitoring.

1.6 Methodology:

The following methodology has been adopted for conducting the study:

- a) Collection of relevant field data,
- b) Examination of records,
- c) Direct observations regarding working of staff,
- d) Interaction with officers and staff and
- e) Critical Analysis.

CHAPTER-II

2.0 OBSERVATIONS :

2.1 Staff Position: The cadre strength of Supervisors, Artisans staff & Ministerial staff working in Power Line units over Raipur Division as furnished & as per data collected is as under:-

SSEE(G)/BYT:					
Designation	Scale	Level	Sanc.	Actual	Vac
SSEE(G)	44900-99800	L-7	01	02	-01
JE	35400-78800	L-6	01	01	00
OS/Hd. Clerk	35400-78800	L-6	02	01	01
Sr. Tech.	35400-78800	L-6	01	01	00
Tech. Gr.I	29200-64700	L-5	04	04	00
Tech. Gr.II	25500-56800	L-4	00	00	00
Tech. Gr.III	19900-44400	L-2	04	03	01
Helper	18000-39900	L-1	08	06	02
Chowkidar	18000-39900	L-1	00	00	00
Total			21	18	03
SSEE(G)/TLD:					
SSEE(G)	44900-99800	L-7	00	00	00
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	01	01	00
Tech. Gr.I	29200-64700	L-5	00	00	00
Tech. Gr.II	25500-56800	L-4	00	00	00
Tech. Gr.III	19900-44400	L-2	01	01	00
Helper /Peon	18000-39900	L-1	02	02	00
Chowkidar	18000-39900	L-1	00	00	00
Total			04	04	00
SSEE(G)/WRS:					
SSEE(G)	44900-99800	L-7	03	02	01
JE	35400-78800	L-6	01	01	00
OS/Hd. Clerk	35400-78800	L-6	01	00	01
Sr. Tech.	35400-78800	L-6	03	02	01
Tech. Gr.I	29200-64700	L-5	07	07	00
Tech. Gr.II	25500-56800	L-4	02	01	01
Tech. Gr.III	19900-44400	L-2	05	06	-01
Helper /Peon	18000-39900	L-1	09	09	00
Chowkidar	18000-39900	L-1	00	00	00
Total			31	28	03
SSEE(G)/WRS/SS-03:					
SSEE(G)	44900-99800	L-7	02	02	00
JE	35400-78800	L-6	01	00	01
OS/Hd. Clerk	35400-78800	L-6	02	01	01
Sr. Tech.	35400-78800	L-6	03	03	00
Tech. Gr.I	29200-64700	L-5	14	15	-01
Tech. Gr.II	25500-56800	L-4	03	02	01
Tech. Gr.III	19900-44400	L-2	01	02	-01
Helper /Peon	18000-39900	L-1	14	12	02
Chowkidar	18000-39900	L-1	00	00	00
Total			40	37	03

SSEE(G)/R:					
SSEE(G)	44900-99800	L-7	02	02	00
JE	35400-78800	L-6	01	01	00
OS/Hd. Clerk	35400-78800	L-6	02	03	-01
Sr. Tech.	35400-78800	L-6	03	02	01
Tech. Gr.I	29200-64700	L-5	05	05	00
Tech. Gr.II	25500-56800	L-4	05	03	02
Tech. Gr.III	19900-44400	L-2	06	04	02
KSI/Peon	18000-39900	L-1	14	12	02
Chowkidar	18000-39900	L-1	00	00	00
Total			38	32	06
SSEE(G)/BIA:					
SSEE(G)	44900-99800	L-7	01	01	00
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	03	02	01
Tech. Gr.I	29200-64700	L-5	06	05	01
Tech. Gr.II	25500-56800	L-4	03	03	00
Tech. Gr.III	19900-44400	L-2	04	01	03
KSI/Peon	18000-39900	L-1	12	06	06
Vehicle Driver	25500-56800	L-4	01	00	01
Total			30	18	12
SSEE(G)/PP Yard:					
SSEE(G)	44900-99800	L-7	01	00	01
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	01	01	00
Tech. Gr.I	29200-64700	L-5	04	02	02
Tech. Gr.II	25500-56800	L-4	01	02	-01
Tech. Gr.III	19900-44400	L-2	00	00	00
KSI/Peon	18000-39900	L-1	06	06	00
Chowkidar	18000-39900	L-1	00	00	00
Total			12	11	01
SSEE(G)/MXA:					
SSEE(G)	44900-99800	L-7	00	00	00
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	00	00	00
Tech. Gr.I	29200-64700	L-5	02	02	00
Tech. Gr.II	25500-56800	L-4	01	01	00
Tech. Gr.III	19900-44400	L-2	00	00	00
KSI/Peon	18000-39900	L-1	00	00	00
Chowkidar	18000-39900	L-1	00	00	00
Total			03	03	00
SSEE(G)/BMY:					
SSEE(G)	44900-99800	L-7	02	01	01
JE	35400-78800	L-6	01	01	00
OS/Hd. Clerk	35400-78800	L-6	03	02	01
Sr. Tech.	35400-78800	L-6	05	06	-01
Tech. Gr.I	29200-64700	L-5	12	13	-01
Tech. Gr.II	25500-56800	L-4	10	06	04
Tech. Gr.III	19900-44400	L-2	05	04	01

KSI/Peon	18000-39900	L-1	20	22	-02
Chowkidar	18000-39900	L-1	00	00	00
Total			58	55	03
SSEE(G)/DRZ:					
SSEE(G)	44900-99800	L-7	01	01	00
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	00	00	00
Tech. Gr.I	29200-64700	L-5	05	04	01
Tech. Gr.II	25500-56800	L-4	02	02	00
Tech. Gr.III	19900-44400	L-2	02	01	01
KSI/Peon	18000-39900	L-1	04	04	00
Chowkidar	18000-39900	L-1	00	00	00
Total			14	12	02
SSEE(G)/DURG:					
SSEE(G)	44900-99800	L-7	01	01	00
JE	35400-78800	L-6	01	00	01
OS/Hd. Clerk	35400-78800	L-6	02	02	00
Sr. Tech.	35400-78800	L-6	03	02	01
Tech. Gr.I	29200-64700	L-5	05	04	01
Tech. Gr.II	25500-56800	L-4	03	02	01
Tech. Gr.III	19900-44400	L-2	05	06	-01
KSI/Peon	18000-39900	L-1	08	10	-02
Chowkidar	18000-39900	L-1	00	01	-01
Total			28	28	00
SSEE(G)/SHNB:					
SSEE(G)	44900-99800	L-7	00	00	00
JE	35400-78800	L-6	00	00	00
OS/Hd. Clerk	35400-78800	L-6	00	00	00
Sr. Tech.	35400-78800	L-6	00	00	00
Tech. Gr.I	29200-64700	L-5	03	02	01
Tech. Gr.II	25500-56800	L-4	00	00	00
Tech. Gr.III	19900-44400	L-2	00	01	-01
KSI/Peon	18000-39900	L-1	00	00	00
Chowkidar	18000-39900	L-1	00	00	00
Total			03	03	00
Grand Total			282	249	33

2.2 **Working Hours of Power Line unit:**

07.30 hours to 11.30 hours & 13.00 hours to 17.00 hours, 6 days in a week. Sunday is the Rest day but some staff are utilized on Sunday also.

2.3 **PERFORMANCE of Power Line units in Raipur division (April 2017 to Mar'18):-**

Month-wise activities carried out by staff of PL units in Raipur Division for last 01 year (APR'2017 – MAR'2018) is as under-

2.3.1 Non Traction Energy Consumption in Raipur Division 2017-2018

Month	UNITS CONSUMED			AMOUNT PAID		
	During The Month (Unit)	During the Corresponding Month of Last Year	Variation (%)	During The Month (Rs.)	During the Corresponding Month of Last Year	Variation (%)
Apr-17	24,21,495	25,80,963	-6.18%	2,20,84,643/-	1,87,04,935/-	18.06
May-17	29,60,733	28,91,095	2.40%	2,66,01,018/-	2,40,92,568/-	10.48
Jun-17	31,18,150	30,75,505	1.39%	2,90,64,498/-	2,57,41,604/-	12.90
Jul-17	29,89,745	29,56,784	1.11%	2,79,32,941/-	2,44,45,175/-	14.26
Aug-17	27,37,336	26,11,478	4.82%	2,62,42,739/-	2,19,18,460/-	19.73
Sept-17	27,26,556	27,02,594	-0.88%	2,46,94,918/-	2,32,01,445/-	6.44
Oct-17	26,89,262	26,50,469	1.46%	2,57,30,881/-	2,36,15,257/-	8.96
Nov-17	25,12,967	25,27,267	-0.56%	2,20,58,302/-	2,23,81,719/-	1.45
Dec-17	22,16,372	21,30,777	4.01%	2,04,07,563/-	1,93,84,735/-	5.28
Jan-18	21,43,284	22,23,541	3.61%	1,99,88,340/-	2,20,89,854/-	9.51
Feb-18	21,02,287	21,28,504	-1.23%	1,89,03,254/-	1,97,82,957/-	-4.45
Mar-18	20,33,918	21,20,756	-4.09%	1,99,40,352/-	1,98,39,227/-	0.51

2.3.2 Average Energy Consumption at Major Load Center:

S#	Major Supply Point	CONSUMPTION (in units)											
		Apr17	May17	Jun17	Jul17	Aug17	Sep17	Oct17	Nov17	Dec17	Jan18	Feb18	Mar18
01	Durg RS/GP	89829	110820	110800	93720	99862	116190	96480	76200	62460	61950	70800	82260
02	Durg CC	48351	67260	64980	55260	58842	57750	42750	44100	40140	39840	43020	42260
03	Durg Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29620	34716	53532
04	PP Yard	109097	55985	105778	60624	63896	74841	70029	47425	45156	33716	37963	45920
05	Exchange Yard BIA	15200	14383	14864	12656	15285	19568	19040	21520	16768	18642	18240	18848
06	ELS/BIA	37463	33846	31204	25834	31116	28260	31813	28306	20015	29584	18400	21137
07	Sick line/BMY	31856	19200	37040	34592	28368	21808	17312	25392	25168	25168	26544	24352
08	Raipur Railway station	116628	197796	176513	137521	166102	118792	147774	138220	105885	155368	96507	120425
09	DLS/R	99680	92800	104640	97600	133920	112160	101920	93600	72320	73280	69600	88160

10	DRM Complex	88800	73120	74560	60000	63680	60480	65440	52160	42080	47520	46720	57440
11	Divisional Hospital	37520	39040	41440	25280	24320	26080	24960	13680	9520	11760	12880	12800
12	WRS filter house /R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11108	10612	10251
13	BPHB Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2150	7500	9348
14	BIA Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1700	1592	1434
15	BYT Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2350	2280	3800
16	BYL Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1990	2200	2900
17	TLD Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5070	5000	5100

2.4 Unit wise vis-à-vis activity wise deployment of Staff: Unit wise deployment to perform various activities are as under:

2.4.1 SSEE(G)/DURG:-

The present deployment of staff in SSEE(G)/DURG as provided by SSEE(G) is as under:

Jurisdiction of SSEE(G)/DURG is Nehru Nagar Gate-DURG-Gudum. There are 261 Railway quarters and 20 Service Building under SSEE(G)/Durg. No of substations are 05 out of which 01 is manned. Total number of pumps is 19.

At present 31 staff (01 SSEE(G), 02 Ch.OS/OS, 02 Sr. Tech., 06 Tech.-I, 03 Tech.-II, 06 Tech.-III, 10-KSI/Helper, 01-Chowkidar) are working in SSEE(G)/DURG Office. Staff work in General shift :08.00-17.30 hrs including Launch break 11.00 hrs- 13.00hrs. Basically, this Section carry out the activities related to Schedule/non-schedule maintenance, special drive and attending failures under section of SSEE(G)/DURG.

The section of SSEE(G)/DRZ comes under SSEE(G)/DURG, There are 314 Railway quarters and 05 substations are under DRZ section. Total number of pumps is 14.

At present 12 staff (01 SSEE(G), 04 Tech.-I, 02 Tech.-II, 01 Tech.-III, 04-KSI/Helper) are working in SSEE(G)/DRZ Office. Staff work in General shift: 08.00-17.30 hrs including Launch break 11.00 hrs- 13.00hrs. Basically, this Section carries out the activities related to Schedule/non-schedule maintenance, special drive and attending failures.

Out of 43 on roll staff, 04 Tech./KSI are deployed per day for Manning of Shivrath Pump House at Durg. About 20 staffs are utilized for Schedule/non-schedule maintenance and attending failures and other duties allotted by Supervisor.

DURG:-	
Supervisor	01
Store matter	01 Ministerial staff
Establishment work	Looked after by Ch. OS/AC-

	TL/DURG.
Chowkidar	01(Habitual absentee)
Meter Reading	01 Ministerial staff
Pump Section	03 Tech. + 01 RG/LR
Manning of Substation	04 (P1:01, P2:01,P3:02)+02 RG/LR
Schedule/non-schedule maintenance and attending failures	12 (distributed in 2-3 gangs)
Emergency duty	01 Tech.+01 Helper
Staff under leave/misc. duty	1-2
DRZ:-	
Supervisor	01
Store matter	01 Tech.
Meter Reading	01 Ministerial staff
Schedule/non-schedule maintenance and attending failures	06
Emergency duty	01 Tech.+01 Helper
Staff under leave/misc. duty	1-2

2.4.2 SSEE(G)/BMY:-

Jurisdiction of SSEE(G)/BMY is KMI-BQR including MXA pump house. Under SSEE(G)/BMY, there are 03 sub-units are present at ELS, BIA & PP Yard. There are about 2381 Railway quarters come under section of SSEE(G)/BMY. No of substations is 19 including 01 Receiving Substation(33KV/11KV) out of which 04 Substations are manned at PP yard, ELS, BIA-3 and BMY. Number of Service building in the section is about 25. And total number of Pumps is 100.

At BMY, there are 55 staff (01 SSEE(G), 01JE, 02 Ch. OS, 06 Sr. Tech., 13 Tech.-I, 06 Tech.-II, 04 Tech. Gr.-III, 22-KSI/Helper) are deployed in SSEE(G)/BMY Office.

At BIA, there are 18 staff (01 SSEE(G), 02 Sr. Tech., 05 Tech.-I, 03 Tech.-II, 01 Tech. Gr.-III) are deployed. Similarly, at PP Yard, there are 11 staff (01 SSEE(G), 01 Sr. Tech., 02 Tech.-I, 02 Tech.-II and 06-KSI/Helper) are deployed.

Staff work in General shift: 07.00-17.00 hrs including Launch break 12.00 hrs- 13.30hrs. Basically, this Section carry out the activities related to Pump operation, attending ART, Schedule/non-schedule maintenance, special drive and attending failures under section of SSEE(G)/BMY.

There is no separate Supervisors are nominated for ART. Existing Supervisors have to look after it.

Supervisor	01 SSEE at BMY. 01 SSEE at PP yard, 01 SSEE at BIA & 01 JEE at ELS)
BMY:-	
02 Substation manning work at BMY & ELS	08 incl. RG/LR
Schedule/non-schedule maintenance and attending failures and Tool Van	19
Store work	02(01 Ministerial+01 Tech.)
ART	12
Establishment work	01
Meter reading	02 (01 Ministerial+01 Helper)
Pump Operation at MXA & BMY	08
Chowkidar duty	04/day.
Leave/misc. duty	02
BIA:-	
Pump Operation at Sirsa gate	04
01 Substation manning work at BIA	04
Schedule/non-schedule maintenance and attending failures of Power line and Pump.	09
PP yard:-	
01 Substation manning work at PP yard	04
Schedule/non-schedule maintenance and attending failures of Power line and Pump.	06

2.4.3 **SSEE(G)/R:-**

Jurisdiction of SSEE(G)/R is KMI Pump House-MDH/SLH IBH. No of substations is 02. There are 504 Railway quarters and 24 service buildings are under SSEE(G)/WRS. No of substations are 06 out of which 01 is manned. Total number of Borewel is 09 and 01 no pump house at KMI is manned.

At present 32 staff (02 SSEE(G), 01 JE, 03 OS/Ch. OS, 02 Sr. Tech., 05 Tech.-I, 03 Tech-II, 04 Tech-III, 12-KSI/Helper) are working in SSEE(G)/R Office. Staff work in General shift :08.00-17.30 hrs including Launch break 12.00 hrs- 13.30hrs. Basically, this Section carry out the activities related to Schedule/non-schedule maintenance, special drive and attending failures under section of SSEE(G)/R.

Out of 32 on roll staff, 05 Tech./KSI are deployed per day for Manning of SS and 04 are Pump House. Other staffs are utilized for Schedule/non-schedule maintenance and attending failures and other duties allotted by Supervisor.

Supervisor	01
Substation manning work	05

Pump House	04
Sr. DEE Office	03
Schedule/non-schedule maintenance and attending failures	15
Staff under leave/misc. duty	2-0
Emergency duty	2

2.4.4 **SSEE(G)/WRS:-**

The present deployment of staff of this section are under control of SSEE(G)/WRS .

Jurisdiction of SSEE(G)/WRS is WRS Workshop and its administrative buildings. There is no Railway quarters under SSEE(G)/WRS. No of substations are 05 out of which 02 is manned. Total number of Borewell is 07.

At present 28 staff (02 SSEE(G), 01 JE, 02 Sr. Tech., 07 Tech.-I, 01 Tech-II, 06 Tech-III, 08-KSI/Helper, 01-Peon) are working in SSEE(G)/WRS Office. Basically, this Section carry out the activities related to Schedule/non-schedule maintenance, special drive and attending failures under section of SSEE(G)/WRS.

Staff work in General shift as follows:

Monday: 08.00 hrs-13.00 hrs & 14.00-18.00 hrs.

Tuesday-Friday: 08.00 hrs-11.00 hrs & 14.00-17.30 hrs.

Saturday: 08.00 hrs-11.00hrs.

Sunday is the weekly Rest day.

Staff work in Substation as follows:

08.00 hrs-16.00 hrs, 16.00 hrs-00.00 hrs & 00.00 hrs -08.00 hrs.

Staff work in Body Shop as follows:

Monday-Saturday: 07.00 hrs - 12.00 hrs & 13.00 hrs -16.00hrs

Monday-Saturday: 15.30 hrs - 20.00 hrs & 20.30 hrs -23.30hrs

Deployment of Staff:

Supervisor	02
Manning of Substation (03 shift)	1x3 + 01 RG/LR =04
Manning at Body Shop(02 shift)	2x2 =04
Schedule/non-schedule maintenance and attending failures	13
Store & Office work	03
AEE office	02 (01 JE+ 01 Peon)

2.4.5 **SSEE(G)/SS-3/WRS:-** Jurisdiction of SSEE(G)/SS-3/WRS is WRS-Mandir Hasaud including WRS colony. There are 1542 Railway quarters and 08 service buildings are under SSEE(G)/WRS. No of substations are 15 out of which 03 are manned. Total number of pumps is 37. 01 no pump house is manned

The present deployment of staff in SSEE(G)/SS-3/WRS is as under:

At present 37 staff (02 SSEE(G),01 Ch. OS, 03 Sr. Tech., 15 Tech.-I, 02 Tech-II, 02 Tech-III, 12-KSI/Helper) are working in SSEE(G)/WRS Office. Staff work in General shift :08.00-17.30 hrs including Launch break 12.00 hrs- 13.30hrs. Basically, this Section carry out the activities related to Schedule/non-schedule maintenance, special drive, preparation for

cultural/sports/departmental functions and attending failures under section of SSEE(G)/SS-3/WRS.

Out of 37 on roll staff, 12 Tech./KSI are deployed in shift duties at Substations and 04 are at Pump House, Other staffs are utilized for Schedule/non-schedule maintenance and attending failures and other duties allotted by Supervisor.

Supervisor	02
Manning of Substation	01/Shift/SS x 03 Shift x 03 SS =09+ 03 RG/LR =12
Manning of Pump House	01/Shift x 03 Shift + 01 RG/LR=04
Meter Reading and other misc. duty	03
Schedule/non-schedule maintenance and attending failures	12-14
Staff under leave/misc. duty	2-0
Emergency duty	2-3

2.4.6 **SSEE(G)/BYT:-**

Jurisdiction of SSEE(G)/BYT is DPH-SLH. No of substations is 03. There are 488 Railway quarters and 23 service buildings are under SSEE(G)/BYT.

At present 22 staff (02 SSEE(G), 01 JE, 01 Jr. Clerk, 02 Sr. Tech., 04 Tech.-I, 01 Tech-II, 03 Tech-III, 08-KSI/Helper) are working in SSEE(G)/BYT Office. Staff work in General shift :08.00-17.30 hrs including Launch break 12.00 hrs- 13.30hrs. Basically, this Section carry out the activities related to Schedule/non-schedule maintenance, special drive and attending failures under section of SSEE(G)/BYT.

Out of 22 on roll staff, total 04 staff (01 Sr. Tech., 01 Tech-II, 02-KSI/Helper) are deployed at TLD to attend failures of Power line and Pump of TLD-SLH section. Other staffs are utilized for Schedule/non-schedule maintenance and attending failures between HN-DPH and other duties allotted by Supervisor.

Supervisor	03
Store work	01
Establishment matter	01
Meter reading work	01
Chowkidar	02
Schedule/non-schedule maintenance and attending failures	10
Staff under leave/misc. duty	2-0
Emergency duty	2

2.5 **Outsourcing Activities** : The following activities of Electrical(G) Power Line are being carried out by outsourcing agency:

- (i) Commissioning of Substation Transformers.
- (ii) Maintenance of DG set.
- (iii) Wiring of quarters and offices.
- (iv) Provision of Coolers and Air conditioners at stations and offices.

CHAPTER-III

3.0 CRITICAL ANALYSIS & RECOMMENDATIONS :-

The actual staff strength of Power Line unit/Raipur Div. is 249 as against the sanctioned strength of 282. The requirement of staff has been assessed based on the present workload, data collected and discussions held with Depot supervisor.

3.1 Assessment of requirement of staff for SSEE(G)/DURG:

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance, special drive, and attending failures of Power line equipments under its section.

During direct observations, it is revealed that SSEE(G)/DURG mainly dealing with Power line equipments maintenance and attending failures in section, maintaining store and registers, maintaining store, up keeping of registers and equipments. As per instructions of Electrical Control for attending failure and attending schedule maintenance work, staff are booked for field duty. However, the requirement of staff for SSEE(G)/ DURG is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
Overall In-Charge	01	00	00	00	01
Field Supervisor at DURG	01				01
Field Supervisor at DRZ	01				01
Store		01	01		02
Meter Reading		01	01		02
Chowkidar duty				04	04
Substation Duty:-					
Manning of DURG Substation		03		01	04
Pump operation SHNB		02		02	04
Sub -Total Requirement of staff	03	07	02	07	19
For Field Activities DURG		05		03	08
For Field Activities at DRZ		05		03	08
Emergency duty at DURG		02		00	02
Emergency duty at DRZ		01		01	02
Total Requirement	03	20	02	14	39
LR @ 12.5%	-	03	-	02	05
Grand Total	03	23	02	16	44

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/DURG and as per existing workload, the requirement of total staff at SSEE(G)/DURG office comes to 44 against total sanction strength of 45.

Hence 01 surplus post of Tech./KSI should be surrendered from SSEE(G)/DURG combine unit (DURG & DRZ).

3.2 **Assessment of requirement of staff for SSEE(G)/BMY:**

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance, special drive, and attending failures of Power line equipments under its section.

During direct observations, it is revealed that SSEE(G)/BMY mainly dealing with Power line equipments maintenance and attending failures in section, maintaining store and registers, maintaining store, registers and equipments of ART . As per instructions of Electrical Control for attending failure and attending schedule maintenance work, staff are booked for field duty. However, the requirement of staff for SSEE(G)/ BMY is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
In-Charge of Office	01	00	00	00	01
Field Supervisor at ELS	01				01
Field Supervisor at PP yard	01				01
Field Supervisor at BIA	01				01
Store		01	01	03	05
Establishment work			01		01
Meter Reading		01	01	01	03
Chowkidar duty				04	04
Substation Duty:-					
PP yard Substation		03		01	04
ELS Substation		03		01	04
BIA-3 Receiving Substation		03		01	04
BMV Substation		03		01	04
Pump operation MXA		02		02	04
Pump operation BMV		02		02	04
Pump operation SIRSA gate		02		02	04
ART		10		04	18
Sub -Total Requirement of staff	04	30	03	22	59
For Field Activities BMV		09		06	15
For Field Activities at BIA		06		04	10
For Field Activities at PP Yard		03		02	05
Total Requirement	04	48	03	34	89
LR @ 12.5%	-	06	-	05	11
Grand Total	04	54	03	38	100

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/BMV and as per existing workload, the requirement of total staff at SSEE(G)/BMV office comes to 100 against total sanction strength of 103.

Hence 03 surplus post of Tech./KSI should be surrendered from SSEE(G)/BMV combine unit (BMV, BIA & PP yard).

3.3 Assessment of requirement of staff for SSEE(G)/R:

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance, special drive, and attending failures of Power line equipments under its section.

During direct observations, it is revealed that SSEE(G)/R mainly dealing with both Power Line and Train Lighting. In PL section they deal with Power line equipments maintenance and attending failures in section, maintaining store and registers. As per instructions of Electrical Control for attending failure and attending schedule maintenance work, staff are booked for field duty. However, the requirement of staff for SSEE(G)/R Power Line section is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
In-Charge of Office	01	00	00	00	01
Field Supervisor (Power Line)	01				01
Field Supervisor (TL)	01				01
Store			01		01
Establishment work			01		01
Meter Reading			01		01
Raipur Substation		03		01	04
Pump House		02		02	04
Sr. DEE office		02		01	03
Emergency duty		01		01	02
Sub -Total Requirement of staff	03	08	03	05	19
For Field Activities		08		06	14
Total Requirement	03	16	03	11	33
LR @ 12.5%	-	02	-	01	03
Grand Total	03	18	03	12	36

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/R and as per existing workload, the requirement of total staff at SSEE(G)/R office comes to 36 staff against total sanction strength of 38.

Hence 02 surplus vacant post of Tech./KSI should be surrendered.

3.4 Assessment of requirement of staff for SSEE(G)/SS-3/WRS:

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance, special drive, and attending failures of Power line equipments under its section.

During direct observations, it is revealed that SSEE(G)/SS-3/WRS mainly dealing with Power line equipments maintenance and attending failures in section, maintaining store and registers. As per instructions of Electrical Control for attending failure and attending schedule maintenance work, staff are booked for field duty. However, the requirement of staff for SSEE(G)/SS-3/WRS is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
In-Charge of Office	01	00	00	00	01
Field Supervisor	02				02
Establishment work/Store			01		01
Substation Duty:-					
SS No-3		03		01	04
DLS Substation		03		01	04
DRM office Substation		03		01	04
Pump Operation		02		02	04
Sub -Total Requirement of staff	03	11	01	05	20
For Field Activities		09		06	15
Total Requirement	02	20	01	11	35
LR @ 12.5%	-	03	-	01	03
Grand Total	02	23	01	12	38

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/SS-3/WRS and as per existing workload, the requirement of total staff at SSEE(G)/SS-3/WRS office comes to 38 staff against total sanction strength of 40.

Hence 02 surplus vacant post of Tech./KSI should be surrendered.

3.5 Assessment of requirement of staff for SSEE(G)/WRS:

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance and attending failures of Power line equipments at WRS.

During direct observations, it is revealed that SSEE(G)/WRS mainly dealing with Power line equipments maintenance and attending failures in section, maintaining store and registers However, the requirement of staff for SSEE(G)/WRS is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
In-Charge of Office	01	00	00	00	01
Field Supervisor	02				02
Store & Establishment			01	02	03
Substation Duty:-					
SS for WRS		04		00	04
Body Shop manning		02		02	04
AEE office	01			01	02
Sub -Total Requirement of staff	04	06	01	05	16
For Field Activities		09		02	11
Total Requirement	04	15	01	08	28
LR @ 12.5%	-	02	-	01	03
Grand Total	04	17	01	09	31

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/WRS and as per existing workload, the requirement of total staff at SSEE(G)/WRS office comes to 31 staff against total sanction strength of 31.

3.6 Assessment of requirement of staff for SSEE(G)/BYT:

It is found based on above data that some works like activities related to Schedule/non-schedule maintenance, special drive, manning of Substation round the clock and attending failures of Power line equipments.

During direct observations, it is revealed that SSEE(G)/BYT mainly dealing with Manning of Substation, maintenance of Power line equipments and attending failures in SS, maintaining registers. As per instructions of Electrical Control for attending failure and attending schedule maintenance work, staff are advised for assigned duty. However, the requirement of staff for SSEE(G)/BYT is assessed as under:-

Section/Works	Requirement of staff				
	Supv. (SSEE(G) /JE)	Tech.	OS	KSI/ Helper/ Chowkidar	Total
For Office Activities:					
In-Charge of Office	01	00	00	00	01
Field Supervisor	01				01
Store & Establishment			01	00	01
Meter Reading		01		01	02
Chowkidar duty				01	01
Sub -Total Requirement of staff	02	01	01	02	06
For Field Activities		07		03	10
Nominated field staff at TLD for TLD-SLH section		02		02	04
Total Requirement	02	10	01	07	20
LR @ 12.5%	-	01	-	01	02
Grand Total	02	11	01	08	22

Based on critical analysis of the activities carried out by the staff deployed under SSEE(G)/BYT and as per existing workload, the requirement of total staff at SSEE(G)/BYT office comes to 22 staff against total sanction strength of 25.

Hence 03 surplus post of Tech./KSI should be surrendered from the cadre of SSEE(G)/BYT unit.

3.7 Summary of Sanction, Present & Proposed staff strength of Power Line Units in Raipur Division:-

S#	Name of PL Unit	Sanction strength	Existing on Roll strength	Proposed Strength	No. of Surplus post to be surrendered
1	SSEE(G)/DURG	45	43	44	01
2.	SSEE(G)/BMY	103	87	100	03
3.	SSEE(G)/R	38	32	36	02
4.	SSEE(G)/SS-3/WRS	40	37	38	02
5.	SSEE(G)/WRS	31	28	31	00
6.	SSEE(G)/BYT	25	22	22	03
Total		282	249	271	11

3.8 RECOMMENDATIONS :

On the basis of above observation and critical analysis the following recommendations are made :-

- 3.8.1** As per details given in Para 3.1 to 3.5, the requirement of staff for Power Line units of Electrical(G) department comes to 271 against sanction of 282 staff. Thus 11 surplus posts Tech./KSI/Helper may be surrendered from Electrical(G) department /Raipur division.

SUGGESTIONS:

- 3.8.2** It is suggested that the number of Group D categories (Khalasi, Helper, Chowkidar) should be reduced to minimum duly updating and redesignating as MTS by application of multi skilling/multi trade concept.

CHAPTER-IV

4.0 FINANCIAL EVALUATION & RESULTS :-

Savings due to surrender of 11 identified surplus posts :-

Design.	Level (in average)	Scale	No. of Post to be surrend ered	Mean pay	Cost per Month per staff (Mean Basic pay+ D.A. @ 07%)	Total cost per month (in Rs.)	Total cost per year (in Rs.)
Tech./KSI	L-2	19940- 44400	11	32170	34422	378642	4543704
TOTAL							

Thus, recurring savings to the tune of **Rs. 45, 43,704 say Rs. 45 lakh** Per annum can be achieved due to surrender of **11 posts** from Electrical(G) department of Raipur division and surrender memorandum to be issued by Sr. DPO/Raipur/SECR.

X-X-X



Good mail 25/6/18

SOUTH EAST CENTRAL RAILWAY
RAIPUR 492008 (C.G.)



FAX (0771) 2252290

OFFICE ORDER NO: RPB/1048/2018 DATE 22-06-2018

Approval of the Competent Authority (DRM/R) is hereby communicated for cadre restructuring of Artisan Category of Electrical (Genl) Department of Raipur Division in terms of Railway Board's L.No PC-III/ 2016/CRC/1 dated 30-09-2016. (RBE No 116/ 2016 circulated vide PCPO/SECR's Estt Sr. No 154/2016). The category wise distribution of Group 'C' cadre of Artisan Category has been restructured w.e.f 01-09-2016. The details are as under.

Sr. No.	Category	Pay matrix Level	Existing Sanctioned posts	Revised %age on as per Estt. Srl. No. 154/16	Nos of increased/ decrease d posts w.e.f 01-09-16	Revised sanctioned posts (after considering the vacant surrendered posts.)
Artisan Staff (Power Line)						
1	Sr. Technician	Level -6	23	26%	18	40
2	Technician - I	Level -5	69	51%	11	79
3	Technician- II	Level -4	32	08%	(-)20	10
4	Technician-III	Level -2	32	15%	(-)09	18
TOTAL			156			147
Artisan Staff (AC Mechanic Wing)						
1	Sr. Technician	Level -6	4	26%	2	06
2	Technician - I	Level -5	10	51%	3	13
3	Technician- II	Level -4	5	08%	(-)3	01
4	Technician-III	Level -2	6	15%	(-)2	04
TOTAL			25			24
Artisan Staff (TL Wing)						
1	Sr. Technician	Level -6	7	26%	4	11
2	Technician - I	Level -5	19	51%	3	19
3	Technician- II	Level -4	9	08%	(-)5	03
4	Technician-III	Level -2	9	15%	(-)2	07
TOTAL			44			40

The following posts have been surrendered to effect cadre restructuring of Electrical(Genl) Department:

Sr. No.	Category	Pay Matrix level as per 7th CPC	No. of posts surrendered
1	Sr Tech (Power Line Wing)	Level -6	01
	Tech.Gr-I (Power Line Wing)	Level -5	01
	Tech.Gr-II (Power Line Wing)	Level -4	02
	Tech Gr-III (Power Line Wing)	Level -2	05
	Helper (Power Line Wing)	Level -1	02
	Tech.Gr-I (TL Wing)	Level -5	03
	Tech Gr-II (TL Wing)	Level -4	01
	Tech.Gr-II (AC Wing)	Level -4	01
Total			16

Contd:2

- unit/department in the relevant cadre register/Secr. Unit or register and the following:-
6. Railway Board's instructions issued vide CPO/SECR's Estt.Rule No.154/2016(RBE No.116/2016) should be followed strictly while implementing the benefit of restructuring.

(S. Soren)

Divl Personnel Officer
For Sr Divl. Personnel Officer
Raipur

Date 22.06.2018

No: E/ PS/ R/ MPP/2018/03

Copy forwarded for information and necessary action to:-

1. PS to DRM for kind information to DRM/ R
2. Ch.OS to ADRM for kind information to ADRM/Infra & OP/R
3. PCPO & PCEE/SECR/BSP.
4. Sr.DEE(G)/R Sr DFM/ Raipur
5. Ch OS/P&C-III, OS(ITM)/ Sr DPO/ R advised to update the cadre accordingly
6. Divisional Co-Ordinator of SECRM/R
7. Divisional Secretary of AISC/ST REA/R.
8. Divl. Secy.SECOBCREA/R.
9. Office Order File.

For Sr.Divl. Personnel Officer

(OS RE)
25.6.18