

EASTERN RAILWAY

WORK STUDY REPORT ON

Review of Staff Strength vis-a-vis Workload of Shop no. 19
& PCO/C under CWM/E. Rly./Kanchrapara Workshop.

(STUDY NO.WSER-12/18-19)

Study Report Submitted on 27/09/2018

Study guided by :- Sri S. Chandra, AEO / E.Rly.

Study conducted by :- Sri K.K. Chatterjee, CPLI

BY
CENTRAL PLANNING ORGANISATION
GM'S EFFICIENCY CELL
EASTERN RAILWAY
KOLKATA

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ACKNOWLEDGEMENT

The study team is thankful to CWM/ER/KPA for his kind co-operation while conducting the subject work study. The study team is also thankful to Dy. CME(C)/KPA, AWM/C-II/KPA, WPO/KPA, Office Supdts. of respective offices for their appropriate co-operation.

TERMS OF REFERENCE

During F.Y. 2018-19, the subject work study is undertaken by GM's Efficiency Cell / Eastern Railway. The respective 'Terms of References' are as follows :

1. To assess the quantum of departmental Coach Painting & Allied Workload at Kanchrapara Carriage Workshop Complex.
2. To examine the deployment particulars of departmental Painter / Trimmer to cater the existing workload.
3. To analyze the participation of outside agency in Coach Painting & Allied Jobs at Kanchrapara Carriage Workshop Complex.

METHODOLOGY ADOPTED

The following methodology is adopted in course of carrying out the subject Work Study:

1. Collection of data pertaining to workload of Paint Shop i.e. Shop No. 19 & PCO/C (Carriage).
2. Discussion with respective personnel under CWM / ER / KPA.
3. Study of existing workload and deployment of departmental Staff to cater the same.
4. Study the effect of existing outsourced works as well as onward proposals regarding coach painting & allied jobs.

SUMMARY OF RECOMMENDATION

Sl. No.	Recommendation	Para ref.
1	<p>It is recommended by the study team that 118 posts of Paint Shop (Shop No. 19) will be surrendered as against the present Sanctioned Strength of 352 posts.</p> <p>It is recommended by the study team that the entire 12 sanctioned posts of Painter & Trimmer of PCO/C will be surrendered immediately</p> <p>In a nutshell, total 130 Posts are recommended for surrender from the existing total Sanctioned Strength of 364 posts against Shop No.19 & PCO/C.</p>	2.38.0.

EXECUTIVE SUMMARY

Study Name & No.	'Review of staff Strength vis-a-vis workload of Shop no. 19 & PCO/C' under CWM / E.Rly. / Kanchrapara Workshop. (Study No. WSER-12/18-19)
Year of conducting the study:	2018-19
Terms of reference:	<ul style="list-style-type: none"> (i) To assess the quantum of departmental Coach Painting & Allied Workload at Kanchrapara Carriage Workshop Complex. (ii) Discussion with respective personnel under CWM / ER / KPA. (iii) To analyze the participation of outside agency in Coach Painting & Allied Jobs at Kanchrapara Carriage Workshop Complex.
Methodology:	<ul style="list-style-type: none"> i) Collection of data pertaining to workload of Paint Shop i.e. Shop No. 19 & PCO/C . ii) Discussion with respective personnel under CWM / ER / KPA. iii) Study of existing workload and deployment of departmental Staff to cater the same. iv) Study the effect of existing outsourced works as well as onward proposals regarding coach painting & allied jobs.
Sanctioned Strength:	364
Existing Men on Roll:	249
Vacant post:	115
Proposed Surrender:	130
Already implemented:	NIL
Pending implementation:	NIL

CHAPTER - I

1.0.0. INTRODUCTION:

1.1.0. Kanchrapara Workshop (**An ISO-9001: 2008 certified Organisation**) now is engaged with P.O.H. of Electric Loco & E.M.U. stock (Both Motor Coach & Trailer Coach), POH, NPOH & ROH of Non-AC Conventional Coaches of Eastern Railway

1.2.0. Kanchrapara Railway Workshop has 04 (Four) different unit/segment which are as follows-

- **Kanchrapara Locomotive Workshop :**
The Locomotive Workshop conducts POH of EMU Motor Coaches & Electric Locomotives. 11 Shops & Production Control Organisation (PCO) complies the said assigned job. The shops are Shop Nos. are Shop No. 1, 2, 2A, 3, 3A, 4, 5, 6, 7, 7A, 8
- **Kanchrapara C&W Workshop :**
The C&W Workshop conducts POH of EMU Trailer Coaches & Non-AC Conventional Coaches. 10 Shops & Production Control Organisation (PCO) complies the said assigned job. The shops are Shop Nos. Shop No. 17, 18, 19, 20, 24, 25, 27, 33, 32, 30. Among the said shops, Shop No. 33 is Motor Transport Shop, Shop No. 32 is office of Health Inspector & Shop No. 30 is office of Yard Master. Shop Nos. 33, 32, 30, though not directly involved with the Outturn but actively takes part for smooth Outturn
- **Kanchrapara Stores Depot :**
This Stores Depot mainly feed the Elctrical Items for Electric Locomotive & EMU Motor Coach Periodic Overhauling (POH) work.
- **Halisahar Stores Depot :**
The Stores Depot mainly feed the Mechanical Items for Non-AC Conventional coaches & EMU Trailer Coaches Periodic Overhauling (POH) work.

1.3.0. To cope up with the changing scenario, Infrastructural Development is not the only requirement for manufacturing & periodical overhauling of various types of passenger coaches, Electric Locomotives but overall infrastructural development is also necessary in the whole Indian Railway system keeping in mind the minimum Environmental pollution in one hand and successful implementation of Clean India Mission on the other hand.

1.4.0. What's more, for any kind of development, money is the most important but limited resources. An organisation, like Indian Railway, may also provide a good financial support for its development, if good financial discipline can be practised and expenditure due to man, materials & overheads can be managed optimally & economically.

- 1.5.0.** Indian Railway is facing tremendous financial crunch after implementation of 7th Pay Commission. Operating ratio is gradually increasing. Though Indian Railway is not a business organization but to survive, it is always essential to make the organization in profit i.e. operating ratio should be less than 1(ONE). The year-wise Performance Efficiency Index of E. Rly. , as published in the corporate plan is tabulated below -

Operating Ratio

2010-11	178.52 %
2011-12	179.79 %
2012-13	178.86%
2013-14	173.32%
2014-15	177.27%
2015-16	180.56%
2016-17	165.25%
2017-18	178.76% (Proposed)

- 1.6.0.** In view of the above, Rly. Board issued nos. of circulars, orders, etc. time to time. The Zonal Railways also implement various measures for financial discipline.
- 1.7.0.** The subject work-study has been undertaken by GM's Efficiency Cell/E. Rly. during the current financial year 2018-2019 with the objective to find out the way for minimising the running expenditure of Workshop and thus improve the productivity index of the workshop. As per terms of reference, the study team has observed the painting and other allied activities in Workshop under CWM/ER/KPA. Finally, study team is entrusted to analyze critically to ascertain the optimum utilization of railway resources for obtaining smart, efficient & economical painting and other allied activities.

CHAPTER - II

Existing Scenario and Critical Analysis:

- 2.1.0. In Kanchrapara Carriage Shop Complex, there is a good nos. of shops under Dy. CME(C)/ER/KPA. Different shops are entrusted specific activities pertaining to Periodic Overhauling (POH), NPOH etc. of different kinds of Passenger Coaching Vehicles (PCV) and Other Coaching Vehicles (OCV), maintenance of Plant & Machineries, etc.
- 2.2.0. Among the different shops of Kanchrapara Carriage Shop Complex, Paint Shop (Shop No.19) is assigned the job of Coach Painting / Trimming i.e. interior and exterior decorative painting, lettering, Sign Writing, etc. of coaches.
- 2.3.0. The nominated jobs of Paint Shop (Shop No.19) are distributed among its 08 sections, viz.
1. CPA Section
 2. CPB Section
 3. CPC Section
 4. S/W i.e. Sign Writing Section
 5. U/F Section, i.e. Under frame Painting Section
 6. Trimming Section
 7. Varnishing & Polishing Section
 8. PCSC Section.
- 2.4.0. The functions of aforementioned sections are elaborated below -

1. **CPA Section** : This section is entrusted for 'Exterior painting of Coaches'.

For EMU Trailer & Motor Coaches MEMU Coaches -

- Inside & Outside Body Washing & Cleaning.
- Outside Body Scrapping for removal of old paint, rust, dirt, etc.
- Provide coating of 'Putty' on Outside of the Coach Body.
- Provide coating of 'Paint' on Outside of the Coach Body & Coach End Panel with the help of either 'Painting Brush' or 'Spray Painting Gadget'.
- Provide coating of 'Paint' on 'Window Shutter, 'Window Frame', 'Window Protection Rod', etc. of coaches.
- Painting of 'New Body Panel', 'Sole Bar' with Red Oxide paint, simultaneously with corrosion repair work of EMU Trailer Coaches.
- Painting of 'Braking System' elements fitted on the Under frame of EMU Trailer Coaches duly maintaining the nominated Colour Codes of Brake Pipe (B.P.), Brake Cylinder (B.C.) & Main Reservoir (M.R.).
- Final touch up with paint, etc. at Coach Despatch line of Carriage Shop.
- Misc. painting works.

For BG ICF Conventional Coaches & DEMU Coaches -

- Outside Body Scrapping for removal of old paint, rust, dirt, etc.
- Painting of 'New Body Panel', 'Sole Bar' with Red Oxide paint, simultaneously with corrosion repair work of BG conventional Coaches.
- Painting of 'Head Stock' with Epoxy Green Paint immediately after assembling.
- Provide coating of 'Putty' on Coach Outside Body.
- Provide coating of 'Paint' on Coach Outside Body & Coach End Panel with the help of either 'Painting Brush' or 'Spray Painting Gadget'.
- Provide coating of 'Paint' on 'Window Shutter, 'Window Frame', 'Window Protection Rod', etc. of coaches.
- Painting of 'Braking System' elements fitted on the Under frame duly maintaining the nominated Colour Codes of Brake Pipe (B.P.), Feed Pipe (F.P.).
- Final Touch up with paint, etc. at Coach Despatch line of Carriage Shop.
- Misc. Painting work, etc.

2. CPB Section : This section is entrusted to for painting of all types of coaches in the under mentioned areas -

- Painting of 'Coach Exterior Roofs' for all kinds of coaches.
- Painting of 'Coach Interior Ceiling' for all kinds of coaches.
- Painting of 'Coach body Inside, except Non-Metallic wall panel, Stainless Steel panels, Chequered sheet, Rexins, Plastic Mouldings, etc.' for all kinds of coaches.

3. CPC Section : Surface treatment and painting, as per schedule, for the coach fan blade, fan Guard, Tube light fittings, Tube light Reflector, etc. & Marking of Springs pertaining to Coach Suspension.

4. S/W i.e. Sign Writing Section: All kinds of Outside Letter Writing, Sign Writing, Inside Letter Writing, Stencilling activities of all kinds of coaches i.e. BG ICF Conventional Coaches, EMU Coaches, DMU Coaches, Tower Cars, etc.

5. U/F Section, i.e. Under frame Painting Section: This section performs various surface treatment process (as per codal provision) of coach under frame components as a measure of 'Corrosion Prevention'. Under frame components of Coaches are Bogie, Trimmer, Trough Floor, Head stock, etc.

- 'Scrapping and Cleaning' of old paint, rust, dust & dirt and thereafter 'Painting' as per schedule for the Bogies of 'BG Conventional ICF Coaches' & 'EMU Trailer Coaches',
- 'Painting Work' related attention during Outturn/ Despatch of coaches for the 'BG Conventional ICF Coaches', 'EMU Motor Coaches & EMU Trailer Coaches',
- 'Under frame' Spray painting for 'BG Conventional ICF Coaches', 'EMU Motor Coaches & Trailer Coaches', 'DEMU Coaches', 'MEMU coaches.
- Painting of EMU Trailer Coach's Sole bar, immediately after repair work at shop floor.
- Misc. Scrapping & Painting work at PIT Line & Shop floor.
- Marking of Primary suspension coil spring with paint.

6. **Trimming Section** : Repairing of old, damaged Seats, Berths of MEMU/DEMU/BG ICF Conventional Coaches through Stripping, Re-equipping, etc.-

- Stripping & Re-equipping of old Rexin Cover of Seats, Berths, BCBR (Berth cum back rest), loose cushion of Coaches.
- To alter the thermal bond & Rexin Cover of old and damaged Seats, Berths of Coaches.
- Stitching of Rexin cover for Middle Berth holding Chain, etc.

7. **Varnishing & Polishing Section** : Scrapping & Painting Activities of Wooden seats of EMU Trailer Coaches, EMU Motor Coaches, DMU & MEMU coaches.

8. **PCSC Section (Paint & Paint constituents Service Centre) :**

- From nominated Store Depot, Collection / Drawl of all kinds of Paints, adhesives required for coach painting. Besides that all the necessary allied items, like Nails, Rexins, Thermal Bonds, etc. are also drawn from Store Depot.
- Despatch of Empty Drums/Barrels to respective Store Depot.
- Unloading the above Paints and other associated material from transport van and kept properly with due care.
- Distribution of paints & allied items among the Paint Shop Artisan Staff.
- Maintenance of Respective ledgers of Paint & Allied items.

2.5.0. In course of discussion with SSEs/JEs of Paint Shop (Shop No.19), it is learnt that the under mentioned jobs have been outsourced which were earlier carried out by departmental staff of Paint shop.

- Exterior & Interior Body Washing / Cleaning of BG ICF Conventional Coaches
- Super cleaning i.e. final cleaning (of accumulated dust, dirt, grits, spots of unwanted paints, etc.) from Inside wall panel, Lavatories with its fittings, basin, Seat, Rexene covers of seat & berth, PVC Floor, etc. of BG ICF Conventional Coaches, before despatch.
- Floor sweeping, cleaning of S.S. (Stainless Steel) inside body wall panel, etc. of EMU Coaches.

2.6.0. The said job particulars are found in detail from the office records of Dy.CME/C/KPA which is mentioned in the following table.

Particulars of Tender / Contracts pertaining to the job of Paint Shop (Shop No. 19)

Elements →	SL. No.	Scope of work in relevant Tender / Contracts	L.O.A. No. & Date	Value of Tender/ Contracts	Period of Tender/ Contracts	Remarks
Tender/Contracts related to the job of Paint Shop under execution during F.Y. 2016-17 & 2017-18.	1.	Mechanized cleaning of 1917 nos. of Incoming BG Conventional / DMU coaches. Mechanized Intensive cleaning of Interior portion and buffing & polishing of stainless Steel components of 1917 nos. Off-POH BG Conventional/DMU coaches and mechanized Intensive cleaning of Interior portion of 3570 nos. EMU/MEMU (Trailer & Motor) coaches at Pit Line / other places before turning out from KPA Workshop after POH.	MC/Acs.- 12/Open Tender/Intensive Coach Cleaning/ 16-19/NCDS/580, dtd. 05/05/2016.	Rs. 30,94,393.00	03 years i.e. 09/05/2016 to 08/05/2019	Currency of the contracts are still exist.
	2.	Cleaning of 1591 nos. of Under-frame of conventional (540 nos.) & DEMU (88 nos.) coaches as well as EMU Trailer (963 nos.) Coaches at Carriage Complex/KPA.	MC/Acs.- 12/Open Tender/ Cleaning of Under frame/ 17/1717, dtd. 10/11/2017.	Rs. 5,74,567.29.00	01 year i.e. 21/11/2017 to 20/11/2018	
Tender / Contracts related to the job of Paint Shop, under execution during F.Y. 2018-19.		The above contracts are still in force i.e. under execution during current F.Y. 2018-19.				
Proposed Tender/ Contracts related to the job of Paint Shop under process.	1.	Screen Printing of Marking on the exterior of both sides of End wall and side wall of Non A.C. BG Conventional coaches as per ICF Drg. No. SCN6-8-3-601 (Sheet 1 of 4).		N.A.		
	2.	Outside Coach Painting (i.e. Side Wall, End Wall, Roof and Under-frame) of 628 nos. of BG Conventional & DEMU coaches to be carried out as per exterior colour scheme to RDSO's Sk. No. CSC-1723.		N.A.		

- 2.7.0. Vide CWM/KPA's Office letter no. PB/Misc./OS(P)/Pt. IV, dated 09-08-2018, the Sanctioned Staff Strength and Men-On-Roll position of Paint Shop No.19, as on 01/07/2018 is as under (Annexure - 1),

Category	Grade	Sanctioned Strength	Men-On-Roll	Vacancy
Painter	Sr. Tech.	98	91	7
	Tech-I	161	50	111
	Tech-II	29	17	12
	Tech-III	21	54	-33
Trimmer	Sr. Tech.	09	08	1
	Tech-I	17	13	4
	Tech-II	03	02	1
	Tech-III	04	01	3
Helper		10	13	-3
Total		352	249	103

- 2.8.0. **Deployment pattern of workmen for coach painting and allied works in Kanchrapara Carriage complex:**

Paint Shop under Kanchrapara Carriage complex is entrusted the painting and allied work of coaches. During Work study, the under mentioned pattern of Staff deployment is observed.

- 2.9.0. As per office record, 234 nos. of incumbents are directly reporting to Sr. SE/Shop No.19, as on August'2018. In addition, more or less 17 nos. of Staff against the sanctioned posts of Shop No.19 are deployed in other shops as per the local arrangement of competent authority. The above 17 Staff do not take part in the painting activities of Shop No.19.

- 2.10.0. It is evident from the Incentive booking documents of Shop No.19 that on an average, -

- (i) **16 nos. incumbents** of other shops (i.e. Shop Nos. 18, 20, 29 etc.) are reported to work at Shop No. 19.
- (ii) **08 nos. incumbents** of other shops (i.e. Shop Nos. PCO/C, 20, 30 etc.) are not at all involved in the out-turn of Shop No. 19 but booked in Incentive with the staff of Shop No.19 and get Incentive earning on the basis of Shop No.19 out-turn.
- (iii) **02 nos. incumbents of Shop No.19** are not involved with the out-turn of Shop No.19 at all. But booked in Incentive with the staff of Shop No.19 and get Incentive earning on the basis of Shop No.19 out-turn.
- (iv) **01 no. incumbent of Shop No.19** is working at Shop No.18. He is getting Incentive earning from Shop 18.

- 2.11.0. Thus, in a nutshell, It is clear that out of aforementioned **27 nos.** of incumbents, **11 nos.** have no contribution to the day to day outturn of Shop No. 19 and rest **16 nos.** (designated Non Painter / Non- Trimmer) performed only supporting role in coach Painting Work. Though, 26 nos. among them are enjoying Incentive payment regularly with the designated staff of Shop No.19. and 01 no. getting incentive from Shop no.18.

- 2.12.0. Kanchrapara Workshop, being a maintenance Workshop of Coaching & Locomotive, CLW Pattern of Incentive System is followed. In the subject Paint Shop also, the said incentive system is maintained. Accordingly, based on Workload, Grade-wise / Category-wise Incentive Strength is sanctioned by competent authority. Those Incentive Sanctioned Strength is revised time to time on the basis of the then Workload Pattern of respective shop.
- 2.13.0. In Paint Shop (Shop No.19), present Incentive sanction for Incentive booking is followed since the year 2016. The particulars are tabulated below.
- 2.14.0. Particulars of Sanction of Incentive booking for POH of 17VU EMU MC, 45 VU Non Ac ICF, 60VU EMU TC -

Name of Shop	Sanctioned Incentive posts for 17VU EMU MC, 45 VU Non Ac ICF, 60VU EMU TC.						
	Superv. (JE)	DW			EIW		
		Gr-C	Gr-D	Total	Gr-C	Gr-D	Total
Shop No. 19	25	430	0	430	27	17	44
							499

- 2.15.0. Study team scrutinize the above two table pertaining to Para 2.7.0. & Para 2.14.0. and the result of scrutiny is tabulated below-

Comparison in between Sanctioned Staff Strength (Except Supervisor) as per 'Book Of Sanction' & Sanctioned Incentive posts (Except Supervisor) of Paint Shop.

Sanctioned Staff Strength in Shop No. 19 (Except Supervisor) as per 'Book Of Sanction':

Group 'C': **342 Posts**

Group 'D': **10 Posts**

Total Sanctioned Staff Strength in Shop No. 19 of Group 'C' + Group 'D' Staff = 352 Posts
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Sanctioned Incentive Posts (Except Supervisor) for POH of 17VU EMU MC, 45 VU Non Ac ICF, 60VU EMU TC:

Group 'C': Direct Worker (DW) - **430 Posts** and
Essential Indirect Worker (EIW) - **27 Posts.**

Group 'D': Direct Worker (DW) - **NIL** and
Essential Indirect Worker (EIW) - **17 Posts.**

Total Sanctioned Incentive Posts in Shop No. 19 of Group 'C' + Group 'D' Staff = 474 Posts

2.16.0. Presently, the quantum of workload in Paint Shop No.19 is reduced to such a level that Sanctioned Staff Strength as per 'Book of Sanction' (352 Posts) became much lower than the Sanctioned Incentive Posts (474 Posts).

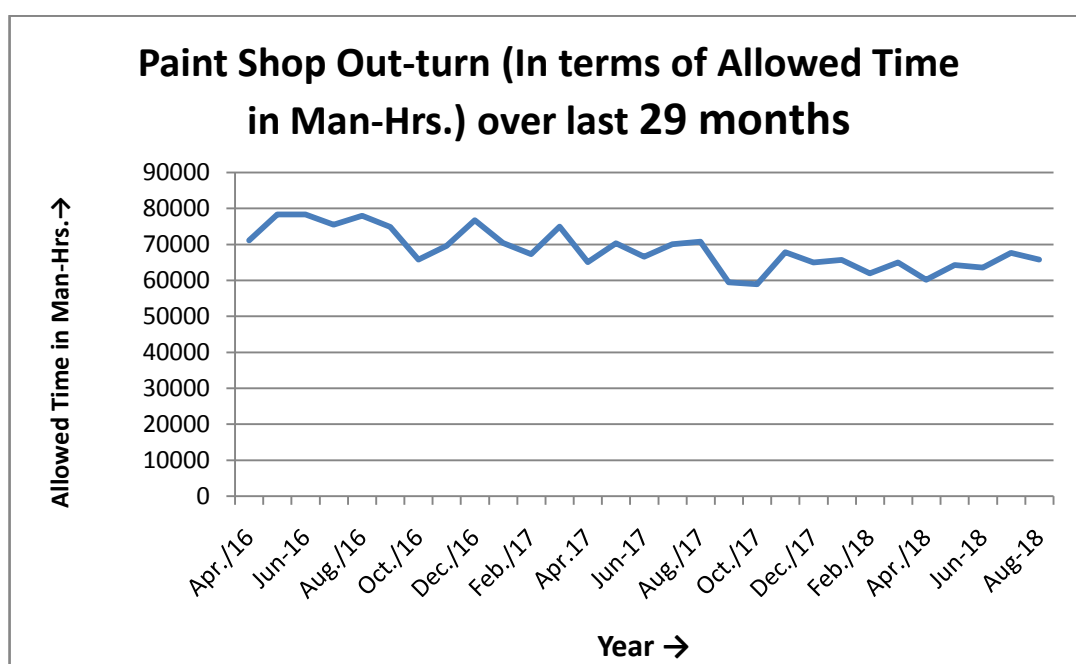
2.17.0. Likewise the above, Study team conducted a comparison between Men-On-Roll (MOR) of Paint Shop No.19 (Incl. the incumbents who are not working at Shop No. 19) & Incentive Post (Sanctioned & Av. Incentive Booking) thereof.

Staff Position as per the 'Book Of Sanction' of Paint Shop (Other than Supervisors, i.e. J.E.) (As on 01-07-2018)		Sanctioned Incentive posts vis-a-vis for 17VU EMU MC, 45 VU Non Ac ICF, 60VU EMU TC. (Other than Supervisors, i.e. J.E.)	Average Incentive Booking of Incumbents
Sanctioned strength (S/S) of paint Shop	MOR (Incl. The incumbents who are not working at Shop No. 19)		
352 Posts	249 Posts	474 Posts	260 Posts

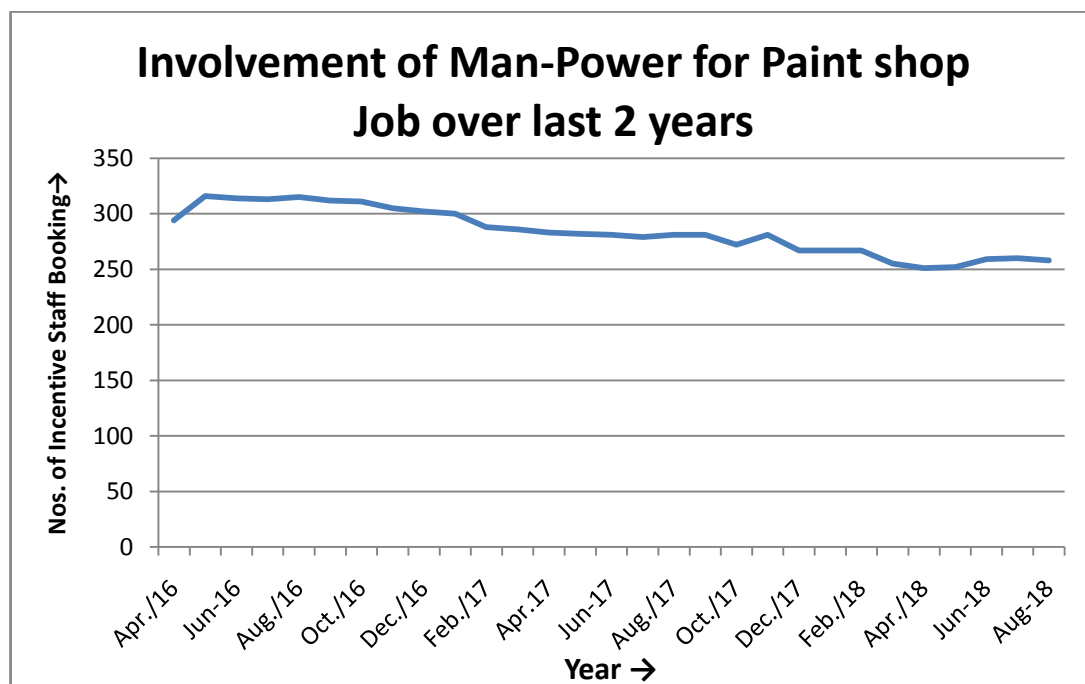
2.18.0. The particulars of 'Allowed Time', 'Nos. of Incentive Booking of Incumbents', etc. is shown below.

Month	Name of Shop	Incentive Booking						Incentive Performance				
		Sunny	DW		EIW		Grand Total	A/T	T/T	Time Saved	% Earning	Monthly Working Hours
			Gr-C	Gr-D	Gr-C	Gr-D						
Apr./16	Shop No. 19/C/KPA	6	259	29	17	10	294	71100.32	47754	23346.32	148.89%	182.00
May/16		6	239	26	34	11	316	78308.31	52314	25994.31	149.69%	200.00
June/16		6	254	28	18	8	314	78346.84	52358	25988.84	149.64%	200.00
July/16		6	251	31	16	9	313	75454.76	50432	25022.76	149.62%	190.00
Aug./16		6	253	33	14	9	315	78009.90	53696	24313.90	145.28%	200.00
Sept./16		5	253	32	14	8	312	74888.60	51654	23234.60	144.98%	194.00
Oct./16		6	252	31	13	9	311	65733.71	44724	21009.71	146.98%	170.00
Nov./16		5	248	31	12	9	305	69613.89	47708	21905.89	145.92%	184.00
Dec./16		4	245	31	13	9	302	76763.99	52450	24313.99	146.36%	206.00
Jan./17		4	243	31	13	9	300	70405.43	47404	23001.43	148.52%	184.00
Feb./17		4	233	31	12	8	288	67268.31	45304	21964.31	148.48%	184.00
Mar./17		4	231	31	12	8	286	74918.56	50224	24694.56	149.17%	206.00
Apr.17		3	229	31	12	8	283	65087.93	43930	21157.93	148.16%	182.00
May /17		2	228	31	11	10	282	70364.81	47098	23266.81	149.40%	200.00
June/17		2	226	31	12	10	281	66550.99	45256	21294.99	147.05%	192.00
July/17		1	237	39	0	2	279	70078.15	47050	23028.15	148.94%	198.00
Aug./17		1	225	31	14	10	281	70739.76	47408	23331.76	149.21%	200.00
Sept./17		1	225	32	14	9	281	59471.83	39920	19551.83	148.98%	168.00
Oct./17		1	218	34	13	6	272	58913.97	39750	19163.97	148.21%	168.00
Nov./17		1	225	32	14	9	281	67837.50	45358	22479.50	149.56%	194.00
Dec./17		1	214	33	13	6	267	64985.93	43566	21419.93	149.17%	190.00
Jan./18		1	214	33	13	6	267	65702.39	44004	21698.39	149.31%	192.00
Feb./18		1	214	33	13	6	267	61956.35	41646	20310.35	148.77%	184.00
Mar./18		2	204	33	10	6	255	64968.33	43637.50	21330.83	148.88%	198.00
Apr./18		2	200	33	10	6	251	60121.30	40264	19857.30	149.32%	186.00
May/18		2	200	33	9	8	252	64295.19	43196	21099.19	148.85%	200.00
June/18		2	223	18	9	8	259	63591.42	42626	20965.42	149.18%	192.00
July/18		2	223	16	11	8	260	67623.15	45330.00	22293.15	149.17%	200.00
August/18		2	223	13	12	8	258	65767.85	44092.00	21675.85	149.16%	200.00

- 2.19.0. In reference to Table, vide para. 2.6.0, it is seen that the Contractual work (vide ref. MC/Acs.-12/Open Tender/Intensive Coach Cleaning/16-19/NCDS/580, dtd. 05/05/2016) starts execution / implementation w.e.f. 09/05/2016.
- 2.20.0. As an immediate effect of the above Contractual work execution / implementation w.e.f. 09/05/2016, under mentioned happenings were noted by the Study Team-
- 'Incentive Earning Percentage'** came down from 149.69% to 144.98% during the subsequent months.
 - 'Allowed Time (A/T)'** reduced from **78308.31 Man-Hrs.** to **65733.71** i.e. reduced upto **12,575.00 Man-Hrs.** (Approx.).
 - 'Nos. of Incentive staff booking'** came down from 316 nos. to around 250 nos., during the subsequent months.
 - The **'Incentive Earning Percentage'** during the successive months recovered again to 149.16%.
 - 'Allowed Time (A/T)'** could not recovered at all in due course, rather reduced upto **12,575.00 Man-Hrs.** (Approx.)
 - 'Nos. of Incentive staff booking'** gradually came down to 258 nos. over a period of 29 months, i.e. w.e.f. April, 2016.
- 2.21.0. Thus the reduction of **'Allowed Time (A/T)'** and **'Nos. of Incentive staff booking'** over a period of 29 months (April, 2016 to August, 2018) categorically indicates the gradual reduction of Work load in the subject-mentioned area after starting of the Contractual work execution / implementation w.e.f. 09/05/2016.
- 2.22.0. The scenario of the aforesaid reduction of **'Allowed Time (A/T)'** over a period of 29 months (April, 2016 to August, 2018) is shown below -



- 2.23.0. Similarly, the reduction of '**Nos. of Incentive staff booking**' over a period of 29 months (April, 2016 to August, 2018) is being seen in the under mentioned graphical representation -



- 2.24.0. To conduct the data analysis pertaining to the reduction of '**Nos. of Incentive staff booking**' over a period of 29 months (April, 2016 to August, 2018), study team divides the 29 months time in approximately three (03) nos. 'Equal Time Segment', viz.

Time Segment - 'X' → April, 2016 to January, 2017.

Time Segment - 'Y' → February, 2017 to November, 2017.

Time Segment - 'Z' → December , 2017 to August, 2018.

During Time Segment - 'X' i.e. April, 2016 to January, 2017, the relevant data are tabulated below -

Month	Shop No.	Incentive Booking (Nos. of Staff Booked)
Apr./16	Shop No. 19/C/KPA	294
May/16		316
June/16		314
July/16		313
Aug./16		315
Sept./16		312
Oct./16		311
Nov./16		305
Dec./16		302
Jan./17		300
Monthly Average of Incentive Booking in Time Segment - ‘X’→		308.20

During Time Segment - 'Y' i.e. February, 2017 to November, 2017, the relevant data are tabulated below -

Month	Shop No.	Incentive Booking (Nos. of Staff Booked)
Feb./17	Shop No. 19/C/KPA	288
Mar./17		286
Apr.17		283
May /17		282
June/17		281
July/17		279
Aug./17		281
Sept./17		281
Oct./17		272
Nov./17		281
Monthly Average of Incentive Booking in Time Segment - ‘Y’→		281.40

During Time Segment - 'Z' i.e. December , 2017 to August, 2018, the relevant data are tabulated below -

Month	Shop No.	Incentive Booking (Nos. of Staff Booked)
Dec./17	Shop No. 19/C/KPA	267
Jan./18		267
Feb./18		267
Mar./18		255
Apr./18		251
May/18		252
June/18		259
July/18		260
August/18		258
Monthly Average of Incentive Booking in Time Segment - 'Z'→		259.56

Summary of the above three tables are -

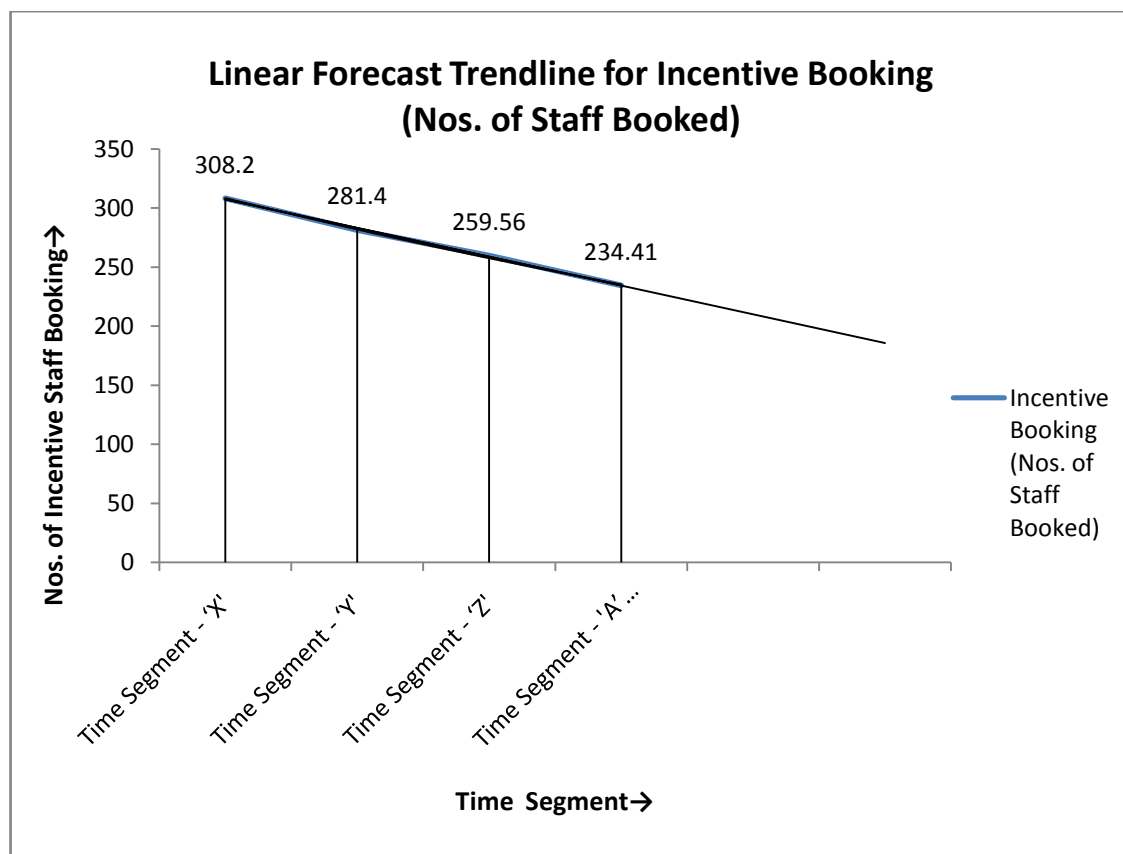
Month	Shop No.	Incentive Booking (Nos. of Staff Booked)
Monthly Average of Incentive Booking in Time Segment - 'X'→	Shop No. 19/KPA	308.20
Monthly Average of Incentive Booking in Time Segment - 'Y'→		281.40
Monthly Average of Incentive Booking in Time Segment - 'Z'→		259.56

- 2.25.0. To extrapolate the anticipated numerical figure of onward Monthly Average of Incentive Booking i.e. Nos. of Staff Booked in Incentive (Let, it be for Time Segment - A), Statistical Forecasting Technique is applied.
Thus, Anticipated Monthly Average of Incentive Booking in Time Segment - 'A' is evaluated as **234.41 Nos.**

Thus, the complete Summary Table is as below,

Month	Shop No.	Incentive Booking (Nos. of Staff Booked)
Monthly Average of Incentive Booking in Time Segment - 'X'→	Shop No. 19/C/KPA	308.20
Monthly Average of Incentive Booking in Time Segment - 'Y'→		281.40
Monthly Average of Incentive Booking in Time Segment - 'Z'→		259.56
<i>Monthly anticipated Incentive Booking in Time Segment - 'A' →</i>		234.41

- 2.26.0. To establish the authenticity of the evaluated *Monthly anticipated Incentive Booking in Time Segment - 'A' as 234.4*, a *Linear Forecast Trend line* is drawn through graphical presentation of data pertaining to Para 2.25.0. It is clearly seen that the fig. of 234.41, which was obtained through Statistical Forecasting Technique, is located/laid on the said *Linear Forecast Trend line*.



- 2.27.0. Thus, it is very much clear that as an after effect of outsourcing, a drastic man power requirement is slashed. ***Thus, the bare requirement of Staff for the work of Coach Painting & allied jobs is evaluated as 234.41.***
- 2.28.0. The requirement of staff in Shop No.19 will be further reduced in future, once the proposal of outsourcing of the under-mentioned jobs will be finalised. These two proposals are in addition besides the present two nos. of contracts (As mentioned in Para 2.27.0.). The particulars of the proposed outsourcing are again reproduced below from para. 2.6.0.
- (i) Screen Printing of Marking on the exterior of both sides of End wall and side wall of Non A.C. BG Conventional coaches as per ICF Drg. No. SCN6-8-3-601 (Sheet 1 of 4).
 - (ii) Outside Coach Painting (i.e. Side Wall, End Wall, Roof and Under-frame) of 628 nos. of BG Conventional & DEMU coaches to be carried out as per exterior colour scheme to RDSO's Sk. No. CSC-1723.
- N.B. In the present evaluation of Staff strength, the effect of above two nos. of proposed Tender Contracts are not taken into consideration.
- 2.29.0. The complete staff Strength of Paint Shop No.19 is not utilised in their nominated jobs. Rather, a section of staff are not utilised for Coach Painting Job. Besides that, a nos. of staff are booked in incentive from Shop No.19 though they are not take part in the Paint Shop Out Turn.
- 2.30.0. As the Study was conducted on the Paint Shop (Shop No.19), so it is utmost necessary to evaluate the bare requirement of the Shop to cater the present Workload.
- 2.31.0. To evaluate the bare requirement of Paint Shop, 27 nos. of incumbents to be deducted from ***the evaluated bare requirement of 234.41 nos. Staff for the work of Coach Painting & allied jobs. The reason behind the same is already discussed at para 2.10.0 and 2.11.0.***
- 2.32.0. Thus, the bare requirement of Paint Shop (Shop No.19) is evaluated as (234.41 - 27.00) i.e. 207.41.
- 2.33.0. Considering 12.5% allowance as Leave Reserve (L.R.) on the bare Requirement 207.41, The Proposed Sanctioned Strength of Paint Shop (Shop No. 19/C) is obtained as 233.34 (207.41 + 12.5% of 207.41) i.e. \approx 234.
- 2.34.0. In view of above, the **Proposed nos. of Surplus Posts of Paint Shop = Present S/S - Proposed S/S i.e. 352 - 234 = 118 Posts.**
- 2.35.0. As on 01/07/2018, the numbers of **vacant posts in Paint Shop is 103**. In addition, **17 incumbents of Paint Shop will be superannuated within February'2019.**
- 2.36.0. surrendering of proposed **118 Posts** will not create any future hindrance in the out-turn of Shop No. 19, as the projected vacancy of Shop No. 19 will reach **120 Posts** (103 + 17) **by the end of February'2019**. Moreover, after finalisation of onward outsourcing proposals (as mentioned in para 2.28.0), the departmental workload will be reduced further.

2.37.0. **Existing Scenario related to the deployment of Painter & Trimmer at Production Control Organisation/ Carriage Complex / Kanchrapara (PCO/C/KPA) directly under the control of Dy. CME(C)/ER/KPA.**

2.37.1. Vide CWM/KPA's Office letter no. PB/Misc./OS(P)/Pt. IV, dated 31-08-2018, the Sanctioned Staff Strength and Men-On-Roll position (Grade/Category-Wise) of PCO/C, as on 01/08/2018 is as under- (Annexure - 2)

Category	Grade	Sanctioned Strength	Men-On-Roll	Vacancy
Painter	Tech-I	06	00	06
	Tech-II	02	00	02
	Tech-III	02	00	02
Trimmer	Tech-I	01	00	01
	Tech-II	01	00	01
	Tech-III	00	00	00
Total		12	00	12

2.37.2. The Main theme of the present work study is to assess the Painting work load vis-a-vis the associated man power to cater the same. PCO/C is the supporting organisation of Kanchrapara Carriage Complex. It provides technical support pertaining to material management, Production Planning, Rate Fixing, Inspection of finished product in line with the Workshop Production, etc. As per the system in vogue, the Organisation is manned from different shops / different Trades who has various nature of technical expertise. The pin pointed posts of PCO / Kanchrapara Carriage Complex are filled-up with incumbents of different trades like, Painter, Trimmer, welder, carpenter, fitter, etc. Accordingly, the 12 no. of Pin Pointed Posts of Painter & Trimmer sanctioned (As per the BOS/KPA Workshop). As per the para , 2.37.1, the nos. of Vacant posts in PCO in the category of Painter & Trimmer are 12, since no incumbents are there in PCO/C for a considerable period.

However, Study team concentrated on the category of Painter & Trimmer only instead of the whole PCO/C and hence, set aside the other pin pointed posts of PCO/C in the out of periphery of this study.

2.37.3. In this Present Scenario, it is clear that continuance with that vacant 12 posts are not necessary at all, as the posts viz. Painter & Trimmer has lost its importance due to very fast rate of 'Painting work Outsourcing'. Accordingly, in PCO/C, the job scope of Painter / Trimmer related to dealing of paints & allied materials (in material cell i.e. Progress Cell), inspection of the Coach painting works (in Inspection wing), etc. will be categorised as 'Redundant Activities' very shortly. As a result, there is no necessity to fill-up those 12 posts with fresh incumbents having designation of Painter / Trimmer.

2.37.4. Consequent upon the above scenario, it is proposed by the study team to surrender those 12 nos. pin-pointed vacant posts of Painter & Trimmer from PCO/C.

- 2.38.0. **Recommendation:** Study Team recommends surrendering of 118 posts of Paint Shop (Shop No.19) against the present Sanctioned Strength of 352 posts. The study team also recommends surrendering 12 Posts of Painter & Trimmer from PCO/C against the present Sanctioned Strength of 12 posts. In a nutshell, total **130 Posts are recommended for surrender** from **existing total Sanctioned Strength of Shop No. 19 & PCO/C i.e. 364 posts.**

CHAPTER - III

3.0.0. FINANCIAL APPRAISAL:

3.1.0. To appraise the approximate financial implication of proposed surrender, the minimum pay scale and grade pay is considered for the sake of simplicity of calculation.

<i>Level</i>	<i>Grade Pay (In Rs.)</i>	<i>Scale of Pay (In Rs.)</i>	<i>Mean Pay (In Rs.)</i>	<i>D.A. @ 9%</i>	<i>Total monthly Pay/Staff (In Rs.)</i>	<i>Nos. of Posts Surplus</i>	<i>Monthly Savings (In Rs.)</i>	<i>Minimum Annual Savings (In Rs.)</i>
1	1,8000.00	18,000 - 56,900/-	37,450.00	3,370.50	40,820.50	131	53,06,665.00	6,36,79,980 i.e. 6.50 Crore (Approx.)

3.2.0. As per recommendation made in Para – 2.38.0., Minimum Annual financial savings achieved on account of surrender of 131 (On hundred thirty one) posts from Shop No. 19 & PCO/C unit under CWM/E.Rly./KPA is evaluated as Rs. 6,36,79,980 (Rupees Six Crore thirty six Lakh seventy-nine thousand nine hundred eighty only) i.e. **6.50 Crore (Approx.)**