



Annual Report 2023-24



MODERN COACH FACTORY

आधुनिक रेल डिब्बा कारखाना, रायबरेली MODERN COACH FACTORY, RAEBARELI

मैं 31 मार्च 2024 को समाप्त हुए वर्ष के लिए आधुनिक रेल डिब्बा कारखाना, रायबरेली के कार्य की रिपोर्ट अग्रेषित कर रहा हूँ।

I forward herewith, the annual report detailing the operations of the Modern Coach Factory, Raebareli, for the fiscal year ending March 31, 2024.

प्रमाणित
29/3/24

(पी के मिश्रा)
महाप्रबंधक

P.K. Mishra
29/3/24

(P.K. Mishra)
General Manager

सचिव
रेलवे बोर्ड,
नई दिल्ली।

The Secretary,
Railway Board,
New Delhi.

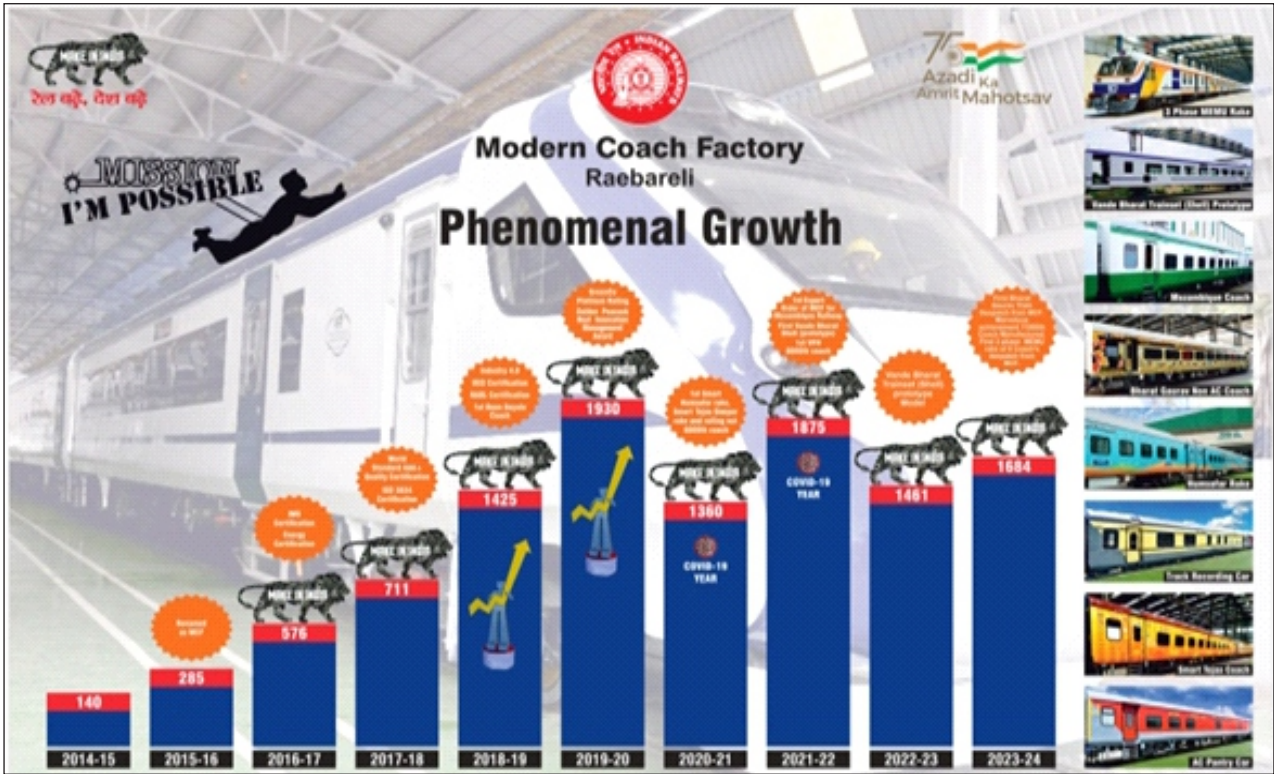


LIST OF CHAPTERS

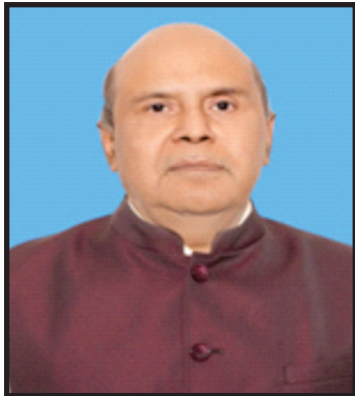
S.No.	Department/Content	विभाग	Page No.
1	Important Milestone	महत्वपूर्ण आंकड़े	3-4
2	General Administration	सामान्य प्रशासन	5-6
3	Public Relations & Publicity	जन सम्पर्क और प्रचार	7-13
4	Mechanical	यांत्रिक	14-56
5	Project Department	परियोजना	57-59
6	Electrical	विद्युत	60-61
7	Civil Engineering	सिविल इंजीनियरिंग	62-66
8	Personnel	कार्मिक	67-75
9	Accounts	लेखा	76-79
10	Stores	भंडार	80-81
11	Medical	चिकित्सा	82-85
12	Vigilance	सतर्कता	86-88
13	Security	सुरक्षा	89-93
14	Sports	खेल कूद विभाग	94-100

Significant Achievements: A Reflection on Milestones	Date
• Foundation stone	Feb' 2007
• Commencement of the land acquisition	Aug'2007
• Preparatory Construction work commenced	Feb' 2009
• Actual Construction of Factory started	May' 2010
• Commissioning of 33 KV Transmission Line	Jan' 2011
• Finishing & Furnishing shop work completed	April'2011
• First Coach Furnished (Shell supplied by RCF/KXH)	April'2011
• Furnishing of the 1 st coach	April'2011
• Furnishing of the 1 st LWSCZAC(Chair Car)	June' 2012
• Furnishing of the 1 st LWFCZAC(Ex. Chair Car)	July' 2012
• Dedicated of The factory to the Nation	Nov' 2012
• Furnishing of the 1 st LWACCW coach	Nov' 2012
• First Shell Assembly (Major sub assembly by RCF/KXH)	July' 2013
• Rolling out of the 100 th coach	July' 2013
• Assembly of the First LHB coach shell by MCF	July' 2013
• Completion of the Bogie shop	Feb' 2014
• Completion of Shell, Paint and Machine shops	Mar' 2014
• The first prototype fabricated Fiat bogie manufactured	Aug' 2014
• The first complete LHB coach including shell by RCF/RBL Manufactured	Aug' 2014
• Furnishing of the 1 st LWSCN coach	Sep' 2014
• Completion of Administrative Building	Nov'2014
• Complete Bogie Assembly	Dec' 2014
• The first Fiat bogie Manufactured	Dec' 2014
• Commissioning of 132 KV MRS	Jan'2015
• First Bogie Manufactured	Feb' 2015
• 100 th Shell Manufactured	June'2015
• 1 st LSCN Shell Manufactured	July' 2015
• 100 th Bogie Manufactured	Dec' 2015
• RCF, Raebareli Renamed as MCF, Raebareli	Dec' 2015
• Rolling out the 500 th coach	Feb' 2016
• 1 st GS Shell Manufactured	April'2016
• Established Recognised Technical Training Centre	May' 2016

• IMS Certification	Oct' 2016
• 1 st Rake of Humsafar coaches dispatched	Nov'2016
• Rolling out 1000 th coach	Jan' 2017
• 1 st Rake of Antyodaya Coaches dispatched	April'2017
• 1 st Power Car shell manufactured	May' 2017
• 1000 th Shell manufactured	May' 2017
• 5 th Rake of Humsafar coaches dispatched	June' 2017
• 1 st Power Car handed over to ZR	Oct' 2017
• Rolling out of the 1500 th coach	Oct' 2017
• 1 st coach of Deen Dayalu dispatched	Jan' 2018
• Total 25 nos. of Power Car handed over to ZR	Mar' 2018
• Rolling out of the 2000th Coach	May'2018
• 1 st SMART Coach dispatched	May'2018
• 1 st LHB Under slung LDSLR Coach turned out	Jan'2019
• 1 st LHB AC Pantry car turned out	Jan'2019
• 1 st LHB Non-AC Chair Car turned out	Feb'2019
• 1 st LHB Track Recording Car Turned out	Mar'2019
• Green Co Platinum Rating Conferred to MCF	June'2019
• 1st LHB First AC Coach Turned out	Aug'2019
• Rolling out of the 5000th Coach	Feb'2020
• 2 nd Rake of Smart version-2 Humsafar Coaches dispatched	Jun' 2020
• 1 st LSLRD-AC-750 KVA (LWLLRMDAC) coach dispatched	July'2020
• 1 st LSLRD AC-750 KVA (18711) coach dispatched for trial	Nov.'2020
• Flagging off of 1 st ever Smart Tejas Sleeper Rake manufactured	Nov.'2020
• 1 st Rake of 12 Loco Hauled Cape Gauge Coach (to Mozambique)	Oct '2021
• Vande Bharat Trainset (Shell) prototype model	Mar'2022
• Rake of 3 Phase Cape Gauge DEMU (Exported to Mozambique)	Dec'2022
• Rani Girls Hockey Stadium	Mar' 2023
• 1 st Bharat Gaurav Tourist Train	April 2023
• Rolling out of the 10000th Coach	April 2023
• 130 KW Solar Power Plant Extension	Aug'2023
• GreenCo Platinum Rating Certificate	Sep' 2023
• 5S Methodology Certificate	Nov'2023
• 1 st 3 Phase MEMU Train dispatched	Mar' 2024
• Rolling out of the 11665 th Coach	Mar' 2024



THE TEAM MCF



Sh. P.K Mishra
General Manager



Sh. S.S. Kalsi
PCME



Sh. Rajeev Khandelwal
PCMM



Sh. Harish Chander
PCEE



Sh. S.K. Katiyar
CAO



Sh. Akmal Wadood
SDGM & CVO



Sh. S.P. Yadav
PCE



Sh. Hamim
Ahmed
PFA



Sh. Roopesh
Srivastava
PCPO



Sh. D.K. Singh
CDE



Sh. M.K.
Shakarwal
PCMO



Sh. Ashish Jain
CMM/Elect.



Sh. K.K.
Kannoja
CMM/Shell



Sh. Kameshwar
Paswan
CMM/Production



Sh. Sandeep
Shukla
CMM/Bogie



Sh. R.K. Singh
CMM/Fur



Sh. M. K.
PANDEY
CPLE



Sh. A.P. Soni
CPE



Sh. Md. Saquib
CWE/Shell



Sh. Sanjay Kr.
CEDE



Sh. Raju Prasad
CQM-II



Sh. S.S. Kero
CWE/Fur



Sh. Dinesh
Kumar Gupta
FA & CAO-I



Sh. R.K.M. Pasi
CQM-I



Sh. Ramesh
Chandra
PCSC



Sh. R.N. Tiwari
Secy to GM
& CPRO

PUBLIC RELATIONS & PUBLICITY

1. PUBLICITY

All new developments and activities were publicised and highlighted through publication and distribution of Publicity Brochures, Pamphlets and other publicity Material. Photographs of different products and publicity data were displayed through Flex Display Boards at different locations in MCF. Several brochures were printed and distributed in events and exhibitions. All ceremonial functions, important events, new developments, sports events were given due coverage by Electronic and Print media in their esteemed newspapers and TV channels.

MODE OF PUBLICITY	2023 -24
No. of Press Release issued	81
No. of Display Banners displayed	38

2. CLASSIFIED ADVERTISEMENTS:

Tender Notice Advertisements were issued regularly during the financial year 2023-24. The contents were regularly scrutinized for space wastage and editing of matter to be published before releasing to various newspapers.

Description	2023 -24
No. of Tender Notices Published	123
No. of Insertions	301
Expenses Incurred	68.29 Lac

3. ASSISTANCE TO CITIZENS THROUGH RTI ACT, 2005

The Right to Information Act 2005 provide for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities in order to promote transparency and accountability in the working of public authority. Constitution of India has established Democratic Republic and democracy requires an informed citizenry and transparency of information, which are vital to its functioning. MCF expedited to provide certain information to citizens of India who desired it.

4. CELEBRATION'S (DIVAS):-

4.1 "Commemorating Dr. Bhim Rao Ambedkar: Bharat Ratna Jayanti".

132th Birth Anniversary of Bharat Ratna Dr. Bhim Rao Ambedkar was celebrated on 15.04.2023 at GM Conference Hall, MCF/RBL. On this occasion, speakers paid tribute to Dr. B.R. Ambedkar remembered his contributions to the society and the nation.



4.2 "Embracing Green Initiatives: World Environment Day Celebration"

"World Environment Day" was celebrated at MCF/RBL on June 5, 2023. On this occasion, in order to raise environmental awareness, various types of trees were planted in the workshop and township premises, as well as in the Eco Park near the Saraswati Auditorium pound at MCF/RBL.



4.3 "Preserving Our Legacy: World Heritage Day Celebration at MCF, Raebareli"

On the occasion of World Heritage Day 2023, multiple programs were organized at the Modern Coach Factory to raise awareness about the rich and diverse heritage of our nation.



4.4 "8th International Yoga Day: Promoting Wellness at MCF"

International Yoga Day was celebrated on June 21, 2023, during which a yoga camp was organized in the Indoor Stadium. A total of 205 officers, staff, and their families participated and practiced yoga and pranayama under the guidance of a trained yoga instructor, Sh. Visheshvar Prasad, following the protocols issued by the Ministry of AYUSH.



4.5 77th Independence Day Celebration:

77th Independence Day was celebrated on August 15, 2023, in a grand manner. The national flag was hoisted by Sh. P.K. Mishra, General Manager of MCF/RBL. RPF parade, cultural program, and award distribution ceremony were held in front of the Saraswati Auditorium at MCF. The Independence Day program was live-streamed on YouTube. Additionally, MCF's administrative office complex, colony gates, and rest houses were adorned with colorful lights, creating a mesmerizing night view.



4.6 Rajabhasa Pakhwada

Rajbhasa Pakhwada was organized from September 19 to September 29, 2023. Various programs were held on this occasion, including a Hindi quiz competition, essay writing competition, poetry seminar, and a meeting to promote the use of Hindi in day-to-day work.



4.7 Swachhta Pakhwada

"Swachhta Pakhwada-2023" was organized from September 16, 2023 to October 2, 2023, at the Modern Coach Factory. This extensive drive included various programs such as cleanliness drives, tree plantation, and Swachhata pledges. On October 1, 2023, under the guidance of General Manager Sh. S.S. Kalasi, to enhance the effectiveness of the Swachh Bharat Mission, he led by example and participated in a cleanliness drive (Shramdaan) within the MCF factory premises. On this occasion, all senior HODs, officers, employees, and sanitation workers of MCF actively participated and contributed to the Shramdaan initiative..



4.8 National Unity Day

On 31 October, the birth anniversary of "Sardar Vallabh bhai Patel", the architect of national integration, is being celebrated in MCF with great enthusiasm as "National Unity Day". Following the guidelines

issued by the Ministry of Railways, the oath was administered by the General Manager MCF/RBL along with all the officers and staff members took oath of "National Integration". March-past was also organized by the Railway Protection Force to strengthen the spirit of unity, integrity and security at MCF.



4.9 "Celebrating the 74th Constitution Day at MCF: Honouring the Preamble and Contributions to India's Constitution"

On the occasion of the 74th anniversary of the Constitution of India, the President recited the "Preamble" of the Constitution via video conference. Simultaneously, General Manager Sh. P.K. Mishra and officials and employees of MCF recited the "Preamble" at their workplaces. Additionally, an exhibition highlighting the significant contributions of key figures in the Indian Constitution's formation was set up in the administrative building. This event saw enthusiastic participation from MCF officers, employees, women, and children, providing them with insights into the Constitution's objectives, fundamental duties, and the struggles and contributions of its framers.



4.10 "Commemorating the 68th Mahaparinirvan Diwas of Bharat Ratna Dr. Bhimrao Ambedkar at MCF: A Tribute to the Architect of Indian Constitution"

On December 6, 2023, MCF reverently observed the 68th Mahaparinirvan Diwas of the esteemed Bharat Ratna Dr. Bhimrao Ambedkar. The solemn ceremony commenced with the MCF General Manager inaugurating the proceedings, symbolically honoring Dr. Ambedkar's legacy by garlanding and illuminating candles.

Following this poignant gesture, officers and employees of MCF came together to offer heartfelt floral tributes, paying homage to the visionary leader whose contributions continue to shape the nation's social and constitutional fabric.

In a spirit of reverence and gratitude, the event served as a poignant reminder of Dr. Ambedkar's indelible imprint on India's journey towards equality, justice, and inclusive democracy.



4.11 "Celebrating the 75th Republic Day at MCF Campus: A Spectacular Display of Patriotism and Unity"

On the auspicious occasion of the 75th Republic Day celebrated on January 26, 2024, the MCF campus witnessed a vibrant and enthusiastic celebration. The unfurling of the flag was conducted with honor by General Manager Sh. P.K. Mishra, marking the commencement of the day's festivities.

The highlight of the event was a spirited parade orchestrated by the RPF, featuring impressive formations from esteemed organizations like Uttar Pradesh Kalyan Nigam Limited and Northern Railway Bharat Scouts & Guides District MCF/RBL. Their synchronized drills and displays exemplified the spirit of unity and discipline.

Additionally, the cultural organization curated a mesmerizing program, encompassing soulful songs, stirring group performances, and captivating dances, which captivated the audience and instilled a sense of national pride.

The entire MCF campus was bedecked with resplendent lights, transforming the administrative office, complex, colony gates, and rest houses into a breathtaking spectacle, reminiscent of the nation's rich heritage and fervor for freedom and democracy.



4.12 "Celebrating 68th General Manager Rail Week Awards Ceremony "

Under the distinguished patronage of General Manager Sh. PK Mishra, the Saraswati Auditorium of Modern Coach Factory resonated with pride and achievement during the 68th General Manager Rail Week Awards ceremony.

With a total of 50 commendable individuals recognized for their exemplary service, including 12 recipients of the prestigious General Manager Rail Seva Awards and 38 recipients of the esteemed Vishishth Rail Seva Awards, the event was a celebration of dedication and excellence in the railway fraternity.

As each awardee was honored, the ceremony underscored the commitment and contributions of MCF's

outstanding employees and officers, embodying the ethos of service and innovation that drives the railway industry forward



4.13 88th All India Railway Athletic Championship in MCF.



5.0 SEMINAR:-

5.1 Vigilance Awareness Week



6.Visit

6.1 Visit of the delegation of African country Mozambique on date-25.09.2023:



6.2 Visit of AM (RS) Railway Board : AM (Railway Store) Dr. Atul Gupta, visited MCF, on date - 28.04.2023



6.3 Visit of AM (PU) Railway Board : AM (Production Units) Shi RK Mangala visited MCF, on date - 19.10.2023.



6.4 Visit of MTRS Railway Board : MTRS (Member Traction & Rolling Stocks) Shi Satish Kumar visited MCF, on date -19.10.2023.



FCWAC	13							1			1	1		3
MEMU MC	16										1		1	2
MEMU TC										2	3	1	6	
ACCN/TEJ(3T)	57	2	10	4	8	4	3	5						36
ACCW/TEJ(2T)		1	4	2	3	2	2	1						15
CBAC/TEJ									1					1
PC/TEJ														0
FAC/TEJ			2		2			1		1				6
TRC	7												0	
TRSC													0	
LWSCZ	0										1	10	11	
TIMC														
MOZ	11	1			5	5							11	
Total	1683	51	157	160	141	130	144	151	138	130	140	140	202	1684

Summary:-

Production Target	1683
Target Achieved	1684
% Achievement	100 %

a) Good work done:-

- Production of 27 Coaches of cape gage loco hauled and DEMU rake for Mozambique Railway.
- Bharat Gaurav Train Production Targets for F.Y 2023-2024 Was 74 Coaches. That was started manufacturing in April-2023 and completed in September 2023 within Time Frame.
- Maximum Gate out Coach in FY- 2023-24 in March- 2024 is 182 Nos.
- 1st Rake of DMC and TMC Train is manufactured in March-2024 for NE and physically gate out on 31.03.2024.



b) Scrap disposal:- FY 2023-2024

Type of scrap	Weight (in kg)
Alum scrap (kg)	38070
SS scrap (kg)	66700
MS scrap (kg)	63670
Honey comb partition scrap	39800
Drum 20 ltr. & 200 ltr. Qty nos.	1969
Total scrap	208240

Paint Shop:

A. PERFORMANCE PARAMETERS:-

Out turn of Paint Shop Was 1684 nos. in F.Y 2023-2024.

S.No.	Month	Out-turn of 2023-2024 (Month Wise)	Mozambique Coach Out Turn	Total Out-turn of 2023-2024 (Month Wise)
1.	April	130	0	130
2.	May	179	0	179
3.	June	148	1	149
4.	July	123	4	127
5.	August	114	3	117
6.	September	123	2	125
7.	October	134	0	134
8.	November	135	0	135
9.	December	144	0	144
10.	January	140	0	140
11.	February	151	0	151
12.	March	153	0	153
Total		1674	10	1684

Scrap Disposal:-**a) Disposal of Empty drums from paint shop and Yard:-**

S.No.	Description	2023 -2024
1.	Empty containers 0.5 to 5 ltrs.	7345 Kgs.
Kgs.2.	Empty drums 20 litres capacity	2862 Nos.

b) Disposal of Hazardous waste from paint shop:-

S.No.	Description	2023 -2024
1.	Hazardous waste generated from paint sludge, paint scoop etc.	16850 Kgs.

New Development:-

1. Sound insulation painting in LWACCNE shells started for better noise insulation & 32 Nos. 3Tier economy shells sound insulation painting done during 2023-2024.

Main achievements of 2023-2024:-

- In the month May 2023, paint shop has achieved out turn of 179 coaches in a month higher in comparison of 2022-23.
- Successful painting of 10 Mozambique Railways coaches.
- 39 C/s Tejas shell life paint material (revalidated expiry date 31.03.2024) utilized in painting of Rajdhani color scheme coaches.
- 50 C/s highest monthly out turn from 2 Nos. paint booth achieved in two shift working.
- Disposal of 16850 Kgs of paint sludge done through M/s Bharat Oil and waste management Kanpur.

3. Carpentry Shop:**A. Scrap Disposal:****Disposal of Carpentry scrap shop (2023-2024)-**

S.No.	Description	Qty.
1.	Wooden scrap from carpentry shop	294080 Kgs.
2.	Aluminium Scrap	12900 Kgs.

B. Main achievements of 2023-24:

- 1st time protection wall for LWACCW coaches is made in carpentry shop for achieving the LWACCW Tejas coaches.
- 1st Masking of rusted & exhausted warranty of door (RH & LH) for power car coaches has been done in carpentry shop. This saves huge cost of Railway.
- 1st time in-house water tank flap has been manufactured for LWSCN & DDG coaches in carpentry shop.

4. Shell Shop:

The details of performance of Shell shop during the F.Y. 2023-24 are as follows:

SN	Details
1	Production Performance a) Shell Assembly : 1683 C/s including 11 C/s of Mozambique Shell b) Side Wall : 1246 C/s c) Underframe : 1092 C/s
2	100% shower testing is being done in shell shop to ensured that there is no leakage in roof.
3	SS Trough is being installed in all AC Coaches to prevent any leakage issues that were previously encountered with FRP troughs
4	For production of shell in organized manner complete component kits (under frame, sidewall) are being manufactured, for in-house production.
5	100% Shells are being taken up for skin tensioning work.
6	Steps taken to minimize undulation: a) 100 % clamping is being ensured at fixtu re for placement of members and pillars as per drawing at Stage -I during side wall framing and manual tack welding for quality improvement of outer surface of shell. b) The shifting of the side wall from one stage to another is being carried out using lifting tackle equipped with 8 clamps on each side c) Torquing at 80 NM is being ensured by substituting the strip of 2mm thickness that was previously utilized for torquing at the four corners of the side wall skin with the T - joint strip of 8mm thickness at the eight locations. d) Brazing of carline and side wall is being executed using a manipulator, ensuring the quality and integrity of the joints. e) The side wall framing tack and full welding are being meticulously carried out at the framing stage itself. f) Activities related to Back piece and berth Channels of side wall have been shifted to stage-IV activities of shell assembly (after skin tensioning). This provides proper place for perforated blocks for proper heating during skin tensioning. g) Measurement is being taken before and after the skin tensioning process to ensure that undulation will fall within the permissible limits. If undulation found > 5mm then process of hammering done with mallet from inside (inside surface of skin sheet) just

after the skin tension process while the magnet is energized and in position on the outside surface is introduced to achieve the desired results.

- h) Two teams have visited BEML and M/s Jindal, Pathredi, Gurugram respectively to study their side wall fabrication practices. These visits aimed to study the procedure adopted at their plant so that good practices could be adopted at MCF.

By implementing the mentioned measures, the level of undulation has come down to a range of 3 to 4 mm, which is a significant improvement from the previous measurement of 7 to 8 mm.

7	Total of 131.165 MT of low value scraped has been disposed off during	FY 2023 - 24.
8	Air Brake pipeline bracket design has been standardization for proper routing of pipelines of air brake system.	
9	Shell Shop has contributed effectively to achieve Platinum Green Co rating for MCF/RBL.	

Showing the contributions of Sheet Metal Shop, Roof section, Tool Room & Housekeeping shop are as below:

5. Production Performance

a) Sheet Metal Shop:-

i) Work done according to production plan issued by Planning Department for 2023-24:

S.N.	Description	Production for the year 2023-24
1.	Under Frame Components	735 C/s
2.	Side Wall Components	582 C/s
3.	Side Wall Skin sheets	965.18 C/s
4.	Roof Components	394 C/s
5.	Roof Sheets	453 C/s
6.	Lavatory Side Wall Components	363 C/s
7.	End Wall Components	119 C/s
8.	Carline Components	379 C/s
9.	Front Part Components	40 C/s

ii) Work done against Special Work Orders issued by Planning Department:

S.N.	Description	Production for the year 2023 -24	Work order No
1	AC Duct	50 C/s	00501074

iii) Critical work done in Emergency requirement by user shop:

S.N.	Description	Production for the year 2023 -24	Work order No
1	S. S. Trough for Shell Assembly	13 C/s	00988686

iv) Outsourced Fabrication work done:

S.N.	Description	Production for the year 2023-24
1	Door Cut Out	300 C/s
2	WTCC	122.5 C/s

3	Channel Assembly	22 C/s
4	Lav. Partition (LS10209)	167 C/s
	Lav. Partition (LS10210)	192 C/s
	Lav. Partition (LS10211)	178 C/s
	Lav. Partition (LS10212)	90 C/s

v) Money saving work by utilization of scrap material generated:

S.N.	Description	Scrap Utilization in 2023-24
1	Total no of components	5,01,616
2	Total weight (in Ton)	256.266
3	Total Value saved (in Rs)	4,01,34,181/-

vi) Ferrous Scrap (including SSA, SSF and CS) generated:

S.N.	Description	Scrap generated in 2023 -24
1	Total weight (in Ton)	852.195

vii) Reduction in consumption of Protective Window glass in FLCMs:

S.N.	Description	Average Consumption per month in 2023 -24
1	Protective Window Glass in Fiber Laser Machines in SMS	15

b) **Roof Section-**

Total- 937 C/s Roof fabricated

(L3T- 304, 2T- 96, ACCNE- 185, LWS- 168, SLRD- 17, SCZ- 49, LWSCN- 56, FAC- 14, LPC- 42 & TRC- 6 C/s Roof).

c) **Tool Room shop:-**

Section	S.N.	Work Description	Qty.
MACHINE SECTION	Production Work		
	1	Upper Box Plate Chamfering	544 C/s
	2	SS Pipe bending for Air Brake Section (All Diameters)	1827 C/s
	3	Aluminium Pipe bending- Φ 71mm for Electrical Section	1194 C/s
	4	SS Pipe bending for Lavatory Section (All Diameters)	1781 C/s
	5	Levelling of Surface Table (4x3 mtr)	03 Nos.
	Calibration of Measuring Instruments		
	1	Calibration of Measuring Instruments done by M/s KRC, Noida	1040 Nos.
	Calibration of Jigs & Fixture		
	1	Shell Jig-1 to 5	05 Nos.
2	U/F Manual Jig Stage-I (1 &2)	02 Nos.	
3	U/F Manual Jig Stage-II (1 &2)	02 Nos.	
4	U/F Manual Jig Stage-III (1 &2)	02 Nos.	
5	Side Wall Framing Jig LH & RH Both	02 Nos.	
6	Roof Acceptance Stand Sr. No-1	01 No.	

Jig & Fixture Section	Modification & New Manufacturing of Jigs & Fixture		
	7	Modification of RDSO Jig for validation of primary spring	01 No.
	8	Modification of fixture for Console (Yaw Damper) for Parel Work Shop WR	01 No.
	9	New Manufacturing of SS Sole Bar Fixture for Parel Work Shop WR	01 No.
	10	New Manufacturing of restricting deformation due to welding in Control Arm BKT for Bogie Shop/MCF	16 Nos.
	11	New Manufacturing of Pallet Stand for LHB Wheel Set	09 Nos.
	12	New Manufacturing of Roof Staking Stand for MCF	05 Nos.
	13	New Manufacturing of Stand for Heat Run Test of Traction Motor (MEMU) for MCF	1 Set.

d) Housekeeping Section:-

S.N.	Achievements	Sale in Ton	Total sale Value (Rs.)
1.	Wooden Packing Scrap Disposal	3958.45	2,53,52,512.00
2.	Low Value Scrap Disposal	360.00	33,22,500.00
3.	Zero value Scrap disposal	435.16	1,80,420.20
Total Disposal		4753.61	2,88,55,432.20

- For utilisation of vertical space, in-house 12 Roof stacking stand had been made which accommodates 04 Roofs at a time Due to this, chances of distortion of Roofs reduced and enhanced aesthetic view.
- To overcome the issue of Roof leakage, Dye Penetrant test introduced in the shop since March 2023, after which the leakages has reduced proportionally.
- An extra channel has been welded on Roof Acceptance Stand. Due to this arch alignment of Roof is not disturbed and give appropriate support during fabrication of roofs.
- 100% shower testing is being done to ensured that there is no leakage in Roof.
- To achieve the production target in organized manner complete component kits are being manufactured in house as advised by planning.
- Sheet Metal shop, Tool Room shop, Roof section & Housekeeping Section have contributed effectively to achieve Platinum Green Co rating for MCF/RBL.
- Sheet Metal shop initiated a step in Greener and cleaner MCF by the work of plantation and gardening, fencing outside the shop from scarp material.

6. Bogie and Wheel Shop:

At present, Bogie shop is manufacturing LHB FIAT bogies of different type's namely LWACCN, LWACCW, LWSCN, LWLRRM, LGS (LS5), LWCBACA, LDSLR and LWSCZ with the help of advance machinery mentioned below. On the same line, wheel shop is also producing wheel set in every 18minutes by the completely automated assembly line.

Bogie and wheel shop both are IMS, 5S and IRIS 22163-2017 certified. Beside this Bogie shop has also achieved ISO 3834-2005 certification.

Because of above stated reasons, MCF/RBL has become OEM for manufacturing of bogie and wheel to other zonal railways and workshops.

7. LIST of M&P:

The list of M&P is as follows:

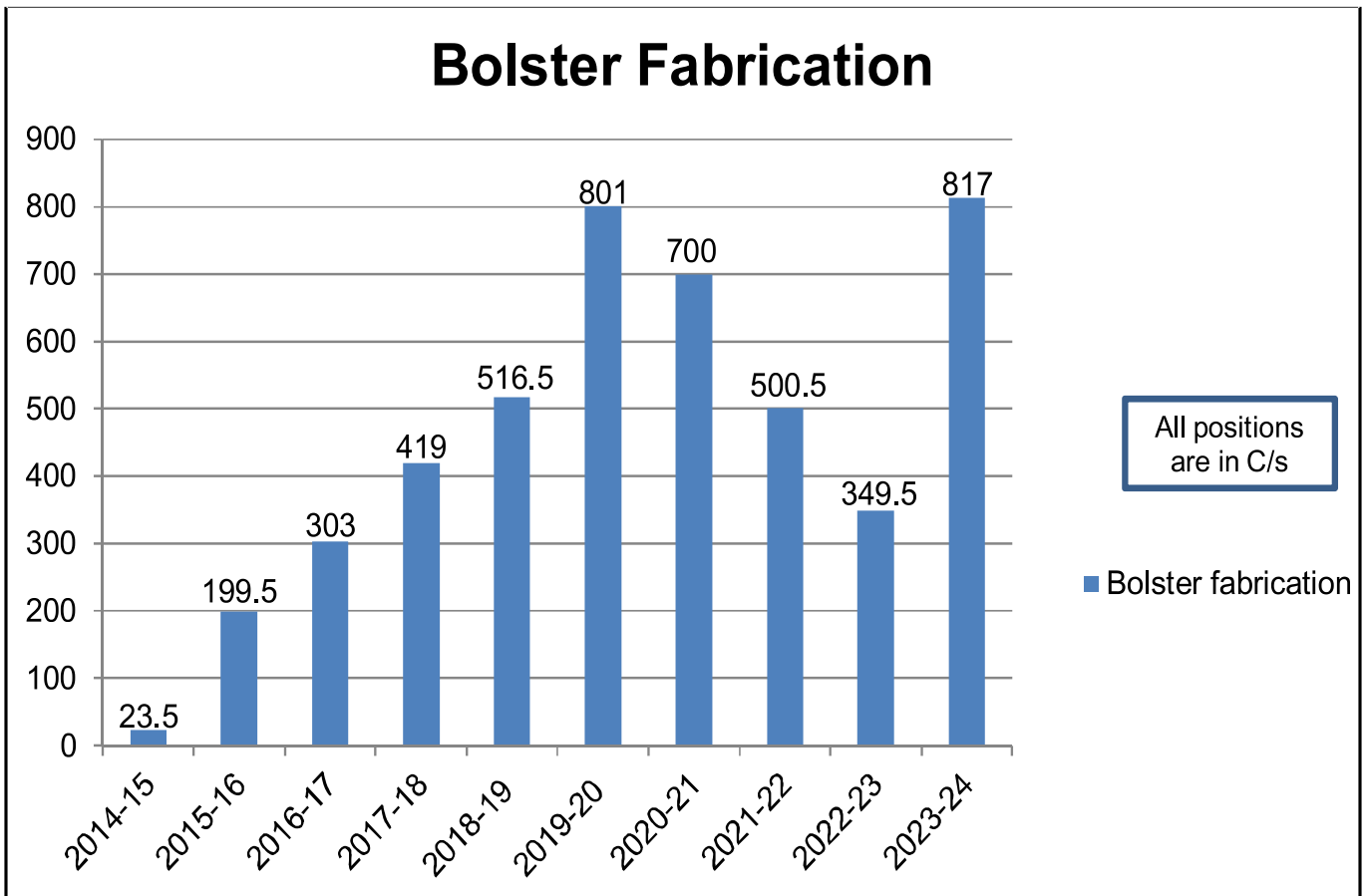
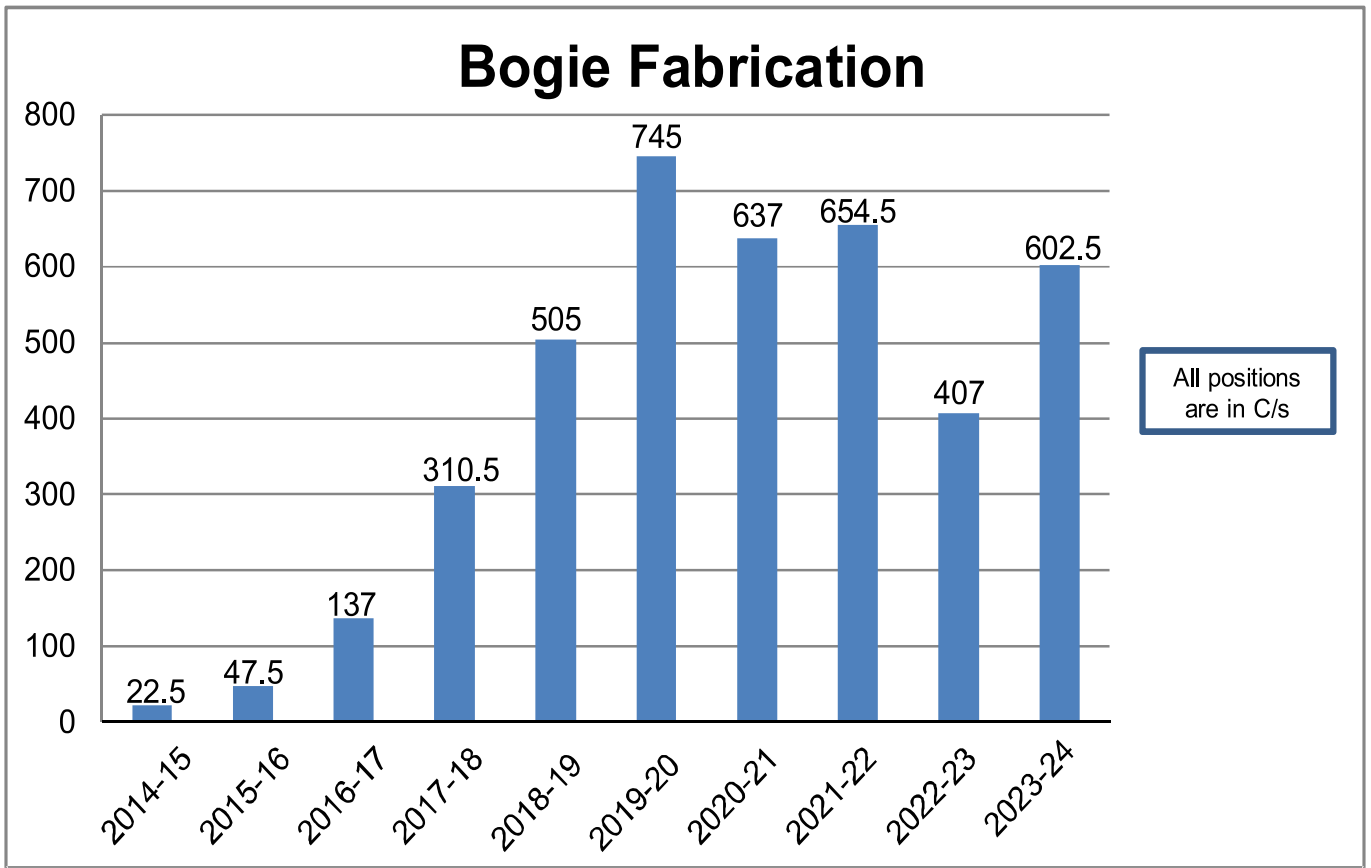
7a. **Bogie Shop**

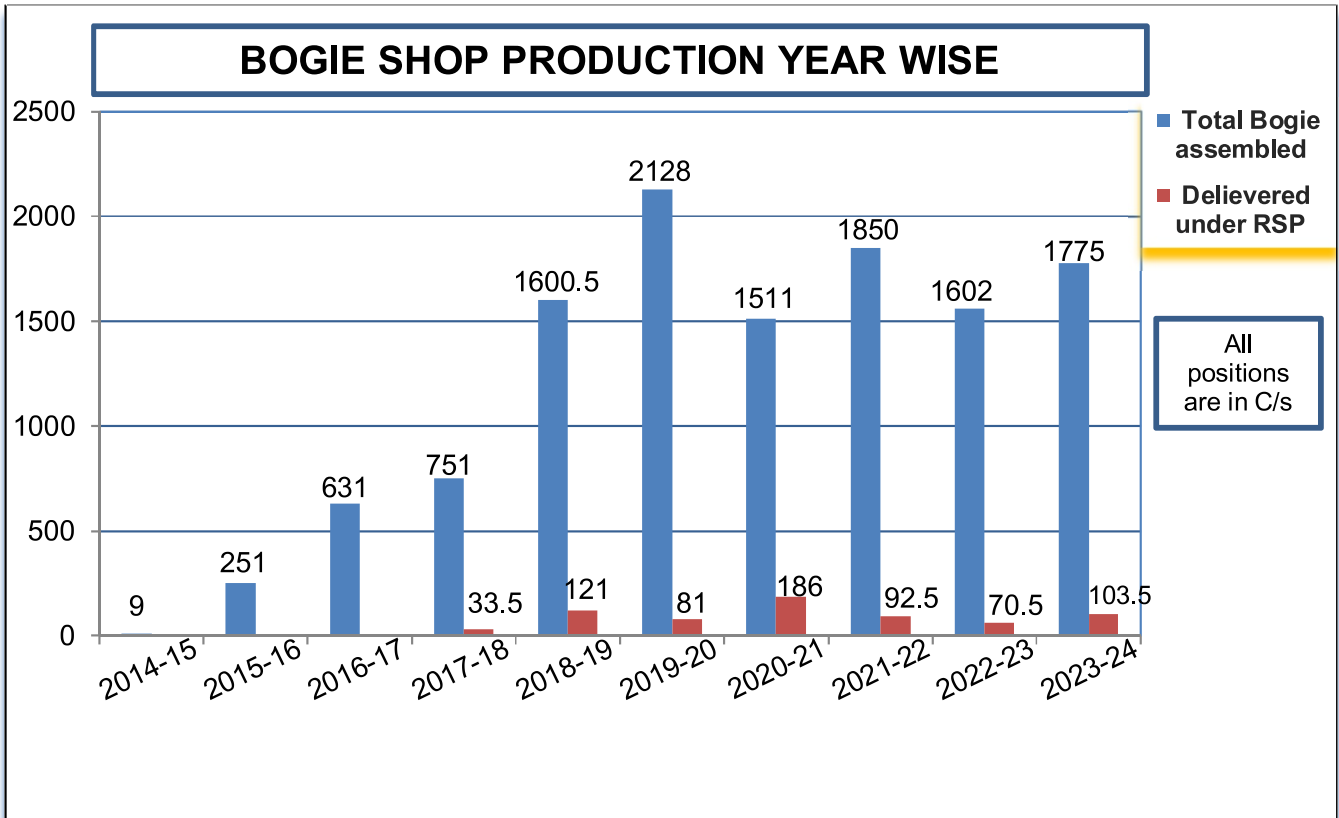
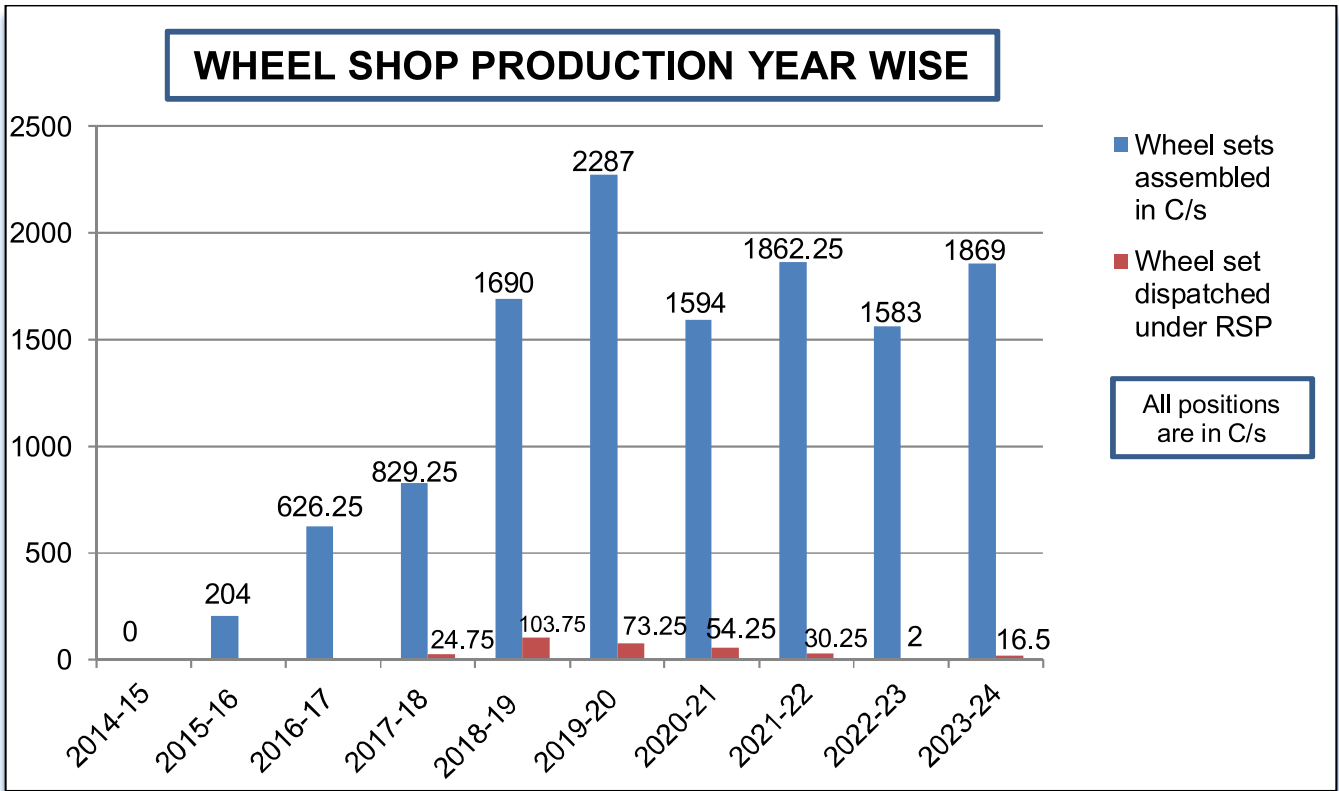
- Plate straightening machine
- CNC Underwater Plasma Machine
- CNC Edge Milling Machine
- CNC Press Brake 700 ton
- Air less shot blasting machine
- Robotic Fabrication Line
- Bogie paint line
- Bolster Machining Centre
- Bogie Frame Machining Centre
- Static Load Testing Machine
- 50 Ton Hydraulic Press Machine
- Integrated solution for High Capacity Bogie Assembly Line Supplied by M/S Godrej & Boyce Mfg. co. Ltd.
 - Date of commissioning 05.11.2019
 - Date of PTC issue 21.05.2020
 - It has the capacity to deliver assembly of one bogie in all respect as per specification in every 60 min.

7b. **Wheel Shop**

- Wheel & Axle assembly Line Supplier:- M/s Danobat Group , Spain
- Installation Date:- 08.04.2015
- Wheel & Axle assembly Line Commissioning Date:- 17.10.2015
- PTC Date:- 27.02.2017
- Completely Automated wheel line with a capacity of assembly of one wheel set in 18 min.
- Wheel Shop has following machines:
 - OP 10 (End Facing Machine)
 - OP 20 (CNC Axle turning Lathe)
 - OP 30 (CNC Grinding Machine)
 - OP40 (Ultrasonic Testing Machine)
 - OP 50 (MPI Machine)
 - OP 60 (Axle Washing & Drying Machine)
 - OP 70 (Axle Measuring machine)
 - OP 100 (Vertical Turret Lathe)
 - OP 200 (Hydraulic Press machine)
 - OP210 (Surface Portal Lathe)
 - OP 220 (Wheel balancing Machine)
 - OP 300 (Wheel & Axle Line gantry)

8. Production Statistics of Bogie Shop & Wheel Shop in C/s





BOGIE ASSEMBLY OUTTURN POSITION 2023-2024																																				
MONTH	COIL SPRING						AIR SPRING																													
	COIL SPRING						120 KN AIR SPRING						140KN AIR SPRING						160 KN AIR SPRING																	
	LWACCN, TRC/TRSC (3T) (C/S)			LWACCN (C/S)			LWACCW, LWFCWACA (C/S)			LWSCZAC, LWFAC (C/S)			LWCBAC (C/S)			BV SLEEPER			VPH			LSASP, LWSCNA, LWS (LS-5) (C/S)			LWLRM (LPC)			LWS (C/S) FRAME 140 KN			LWACCNE (C/S) FRAME 120 KN			LWSCZA/ 160 KN		
	LWFAC, LWACCW, LWFCZAC, LWFCZAC, LWFCWAC (C/S)	LWSCN (C/S)	SIDE-I (C/S)	SIDE-II (C/S)	LWLRRM	LWACCN (C/S)	SIDE-I (C/S)	SIDE-II (C/S)	LWLRRM	SIDE-I (C/S)	SIDE-II (C/S)	LWSCZ (C/S)	LSLRD	SIDE-I (C/S)	SIDE-II (C/S)	LWSCZ (C/S)	SIDE-I (C/S)	SIDE-II (C/S)	SLRD	SIDE-I (C/S)	SIDE-II (C/S)	3PH MEMU DMC	3PH MEMU TC	TRAIN SET	TOTAL (C/S)											
Apr-23	0	0	1	0	0	9	8	2	3	3	1	0	0	9	0	0	0	0	0	38	0	0	74	0	0	0	0	148								
May-23	0	0	2	0	0	4	9	7	6.5	6.5	4	0	2	15	0	0	0	0	0	12	0	0	79	0	0	0	0	147								
Jun-23	0	0	0	0	0	11	20	1	4	4	0	0	1	17	0	0	0	0	0	23	0	0	67	0	0	0	0	148								
Jul-23	0	0	0	0	0	9	30	5	4.5	4.5	3	0	1	11	1	1	0	0	0	16	0	0	37	0	0	0	0	123								
Aug-23	0	0	0	0	0	0	30	16	3.5	3.5	2	0	0	0	0	0	0	0	0	26	1.5	1.5	27	0	1	2	0	114								
Sep-23	0	0	0	0	0	0	11	3	5.5	5.5	7	0	0	0	0	0	0	0	0	90	0.5	0.5	3	0	1	1	0	128								
Oct-23	0	0	1	0	0	0	18	3	4.5	4.5	0	0	0	0	0	0	0	0	0	74	0	0	12	0	0	2	0	119								
Nov-23	0	0	0	0	0	0	14	1	3	3	1	0	0	0	0	0	0	0	0	107	1.5	1.5	38	0	0	1	0	171								
Dec-23	0	0	0	0	0	0	20	7	1	1	2	0	0	56	0	0	0	3	3	12	2	2	94.5	0	0	0	0	203.5								
Jan-24	0	0	0.5	0	0	0	38	9	0	0	4	0	0	31	0	0	0	7.5	7.5	1	3.5	3.5	25	0	0	0	0	130.5								
Feb-24	0	0	0	0	0	0	24	3	0	0	1	0	0	49	0	0	0	3.5	3.5	25	4.5	4.5	12	1	0	0	0	131								
Mar-24	0	0	0	0	0	0	9	0	0	0	0	0	0	3	0	0	0	3.5	3.5	64	1	1	100	15	0	0	0	200								
TOTAL	0	0	4.5	0	0	33	231	57	35.5	35.5	25	0	4	191	1	1	0	17.5	17.5	488	14.5	14.5	568.5	16	2	6	0	1763								

MOZAMBIQUE=12 C/s
 LHB COACH 1755 C/s
 MEMU TC 06 C/s
 MEMU DMC 02 C/s
 TOTAL= 1775 C/s

Comparative performance of Bogie and Wheel for FY 2022-23 and FY 2023-24:

S.N.	Description	2022-23	2023-24
1	Fabrication of Bogie Frame	407	602.5
2	Fabrication of Bogie Bolster	349.5	814
3	Machining of Bogie Frame	415.5	535.5
4	Machining of Bogie Bolster	352	802
5	Bogie Assembled	1558.5	1775
6	Wheel set outturn	1564	1855.25
7	Delivery of Bogie under RSP	64.5	103.5
8	Delivery of Wheel Set under RSP	2	16.5

*All positions are in C/s.

Wheel Shop Outturn (in C/sets) over the years:

F.Year	Outturn
2015 -16	204
2016 -17	626.25
2017 -18	829.25
2018 -19	1690
2019 -20	2287
2020 -21	1594
2021 -22	1862.25
2022 -23	1564
2023 -24	1855.25

Design Section:

1. Mozambique Railway Cape Gauge Coaches:

Item	Description
Name of work done	Manufacturing of 3 Phase MEMU Coaches
Summary	<p>Export order of additional 10 nos. of Second class AC Sitting loco hauled cape gauge coaches to Mozambique has been received and Amendment No.1 to Back-to-Back agreement signed between MCF and RITES on dated 16.12.2022.</p> <p>Delegates of officials of CFM Mozambique along with GGM/ Expotech/ RITES visited MCF from 25.09.2023 to 27.09.2023 in connection with supply of additional 10 nos. Cape Gauge passenger coaches by MCF to Mozambique Railways. All 10 second class AC sitting cape-gauge coaches manufacture, dispatched and successfully commissioned at Mozambique Railways on 21.12.2023.</p>
Impacts/Benefits	<ul style="list-style-type: none"> • By executing the first export order MCF has been able to establish its global presence in market manufacturing of passenger rolling stocks and gain expertise to meet world standards in passenger safety and reliability. • MCF will add a feather in its cap by adding new gauge in its production capability along with complying specific customer requirements both in terms of interior furnishing as well as operating conditions. • With this order it is quite obvious that in near future MCF will get orders from worldwide Railway Networks for Rolling stocks and ultimately adds up more to Non-Railway Customer (NRC) Revenue. Increased demands of coaches from Non-Railway Customers will lead to considerable increase profit of IR.
Salient features	<ul style="list-style-type: none"> ➤ Seating Capacity: 56 ➤ Floor Board: Sound insulation Floor Board (Cork- Sandwich Board) ➤ Interior Panelling: Fibre Reinforced Polymer, ➤ Seats and Berths: Cushioning material PU Foam + Fire barrier cloth + superior quality upholstery. ➤ Windows: Sealed window glass ➤ Hinged type entrance Doors, Sliding type vestibule doors ➤ FRP Modular lavatory equipped with modern fittings. ➤ LED Lightings ➤ Public address and Passenger Information system ➤ Automatic Smoke/Fire detection with alarm system ➤ Anti-climbing feature: Fitted with AAR H Tight lock Centre Buffer Coupler



3. First 3 Phase MEMU:

Item	Description
Name of work done	Manufacturing of 3 Phase MEMU Coaches
Summary	Railway Board had allotted MCF to manufacture, MEMU coaches (04 DMC & 12 TC coaches) in the Production Plan of FY 2023-24 for the first time in the history of MCF. MCF has issued design & drawings of MEMU coaches having M/S BHEL propulsion system. MCF has manufactured the first MEMU rake of 8 cars (2 DMC & 6 TC) successfully rold out from MCF in March' 24 for service of nation. Bulk manufacturing of MEMU rake as per Railway board production plan is in progress.
Impacts/Benefits	<ul style="list-style-type: none"> • MCF has added a feather in its cap by adding new variant in its production capability. • Now MCF team is having more expertise in train sets and fully geared up for taking up the production of self propelled train sets like Vande Bharat and Vande Metro etc.
Salient features	<ul style="list-style-type: none"> ➤ Rake Composition: Rake composition consists of 08 coaches (DMC-2 Nos, TC-6 Nos.) ➤ Powering: 25% (i.e. 01 motor coach attached with 03 Trailor coach) ➤ LHB Shell: Stainless steel ICF type shell. ➤ Bogie: ICF type bogie ➤ Seating Capacity: <ul style="list-style-type: none"> ➤ In DMC Coaches: No. of passengers to seat=55, No. of standing passengers=171 ➤ In TC Coaches: No. of passengers to seat=84, No. of standing passengers=241 ➤ Propulsion system: Propulsion System including installation, commissioning and testing done as per RDSO specification no. RDSO/PE/SPEC/EMU/D 0163-2012 REV-1. <ul style="list-style-type: none"> ➤ Acceleration- 0.54 m/ sec² ➤ Deceleration- Average from 110 Km/h to 50 Km/h: 0.76 m/ sec² Average from 50 Km/h to standstill, 0.84 m/ sec² ➤ Maximum service speed: 110 Km/h ➤ Passenger information system including coach displays, head code, audio communication system and interface with the existing train monitoring system on Railways. ➤ CCTV ➤ Condensed aerosol based fire detection & suppression system & associated accessories ➤ BLDC fans in HT room and cab, AC fans in passenger area. ➤ Manual type Sliding doors



3. Bharat Gaurav Rakes for IRCTC:

Item	Description
Name of work done	IRCTC has demanded for 70 LHB Coaches (05 rakes of 14 coach each) (5 Variants viz. AC 2 Tier-1, AC 3 Tier-7, Power Car-10, AC Hot Buffet-5, Non AC Sleeper Coaches- 47) with additional features.
Summary	Mechanical Design laid the foundation for manufacture of coaches of Bharat Gaurav rake for IRCTC. These coaches had many innovative features like better interiors, prayer room, larger pantry cars, CCTV in non -AC coaches, etc. With these features, these coaches were designed and manufactured in a very short time and dedicated to the service of the country.
Impacts/Benefits	MCF has added a feather in its cap by adding new variant in its production capability along with complying specific customer requirements in terms of interior furnishing.

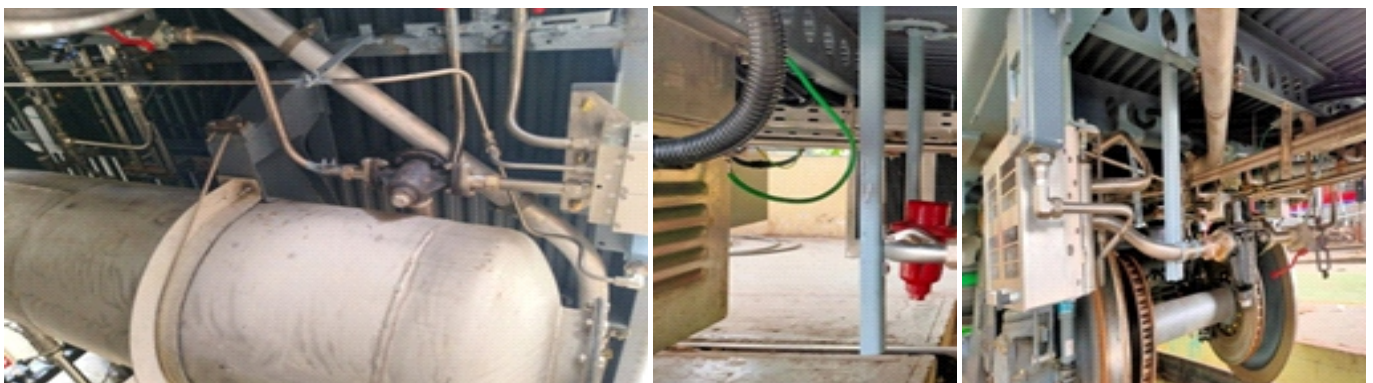
Salient features:

- The brief details of upgraded features are as under:
 - **Lavatories:** *Three Western Style and one Indian style*
 - Each lavatory having **one telescopic shower**, one soap dish, one hand rail, one health faucet, corner washbasin with integrated type dust bin to provide space for bathing, with 3M matting
 - Roller blinds (MDTS 078 Re v-03 with latest amendments) shall be provided in each window in the AC area.
 - **Standalone CCTV system**, End couplers provided for future expansion for centralized monitoring.
 - One Non AC Sleeper coach of each rake shall have **prayer room**.
 - LWSCN with honeycomb partition frame, sidewall panelling with DGFRP and ceiling with GFRE.
 - These coaches are provided with exterior vinyl, the scheme approved by IRCTC.



4. Standardization of brackets for brake pipes of double ferrule fittings

Item	Description
Name of work done	MCF has switched to Double ferrule fitting but RCF drawings for pipe layout are for single ferrule fittings causing bracket welding suite at site. This resulted in to: <ul style="list-style-type: none"> • Non standard location of brackets • Firm-wise variation in bracket location • Taper brackets
Summary	MCF team has studied the mounting bracket locations for making it suitable for double ferrule fittings. Based on study, standardization of brackets for brake piping has been done in the following 04 variants: <ul style="list-style-type: none"> ○ LWSDDG ○ LWSCN ○ LWACCW & ○ LWACCN ➤ Standardised brackets being fitted in all these coaches in Shell Shop.



5. Electro-Pneumatic Pressurized Flushing system:

Item	Description
Name of work done	Improvement in specification of EPPFS
Summary	<p>Various complaints regarding EPPFS installed in coaches were received in past reasons being :</p> <ul style="list-style-type: none"> Defective various subsystems like cylinder, solenoid valve, flush switch, water locking unit control panel, NRV pressure regulator valve. Issue of inter changeability b/w suppliers. <p>To improve the reliability, the specification n. MMDTS 19027 has been revised as Rev-03 with provision of:</p> <ul style="list-style-type: none"> Recommended make of various critical subassemblies. Life cycle test introduced for all suppliers (150000 cycles (approx 1.5 m) Maintenance schedule has been included Clause for supplier to ensure spare availability for 10 years has also been added
Impacts/Benefits	<ul style="list-style-type: none"> The issue of non-standard parts and interchange ability will be solved. Depot will not have any problem related to non availability of spare parts.

6. Low density PU foam specification:

Item	Description
Name of work done	Reduction in density of cushioning material of seats and berths
Summary	<p>Finalised Low Density PU Foam specification</p> <ul style="list-style-type: none"> As per Railway board instruction MCF take over the task of reducing the density of PU foam cushioning material. MCF work in close coordination with PU Foam manufacturers and was able to develop PU Foam cushion with density 65 ± 5 (in place of 95± 5). Weight reduction: 125-140 Kg/coach MCF advised Rly. Bd. on 24.08.23 that MCF has finalised the reduced PU Foam cushion specification. Rly Bd nominated RDSO to take over PU Foam (EN 45545 -2 compliant) MCF handed over Low Density PU Foam specification to RDSO Specification "RDSO/2007/CG-07" Rev-01 issued in Aug' 23 RDSO has given option to vendors to provide either density 65 ± 5 or 95 ± 5 in single specification and both compliant to EN45545-2
Impacts/Benefits	<ul style="list-style-type: none"> The weight of seats and berths will be considerably reduced, hence the lighter coach along with EN45545-2 compliance.

7. Pipe Sealing Arrangement:

Item	Description
Name of work done	Securing of cabling/wiring from being tampered by rodents/rats
Summary	Frequent complaints have been received in MCF about cutting of wiring and conduits by rodents/rats are common in Railway coaches. The matter has been studied in MCF and to overcome the problem, a variable diameter pipe sealing arrangement has been provided in AC 3 Tier Economy coaches.
Impacts/Benefits	As the larger cut-outs for conduits/cable has been sealed with the provision, the issue of rats/rodents invasion shall be considerably reduced.



8. Specification of Oleo phobic and Hydrophobic Coating:

Item	Description
Name of work done	Revision in specification of Bio Degradable, Oleo phobic and Hydrophobic Organic Surface Coating on Interior Surface.
Summary	<p>Railway Board asked to review the MCF specification for Bio Degradable, Oleophobic and Hydrophobic Organic Surface Coating on Interior Surface” on 20.07.2023</p> <p>➤ Area of application (interior):</p> <ul style="list-style-type: none"> • Painted surface • Non painted surface (Window Glass, Doors, Door Handle) • Lavatory inside wall panels, hand basin, mirrors & floor • Sidewall panels • Floor • Partition wall • Gangway area • Tap, sink • Seats and berths
Impacts/Benefits	<p>Features:</p> <ul style="list-style-type: none"> • Aesthetically pleasing surface, easy to clean • Provides impermeable, hydrophobic & oleophobic barriers • Prevents loss of gloss and paint fading • Make item safe from food, dust, corrosion, abrasion • Avoid accumulation of water dampness, water hardness damage.

9. Inclusion of Stage Inspection In Critical Assembly:

Item	Description
Background	<p>MTRS during his visit to MCF on 24.02.2024 raised various issues such as :</p> <ul style="list-style-type: none"> Considering the cracks reported in Tejas coaches underframe, stage inspection should be included in all pending/future POs for procurement of critical assemblies & sub-assemblies. All activities of stage inspection should be inspected and recorded by TPI. Regarding preparation of detailed instruction of storage /handling of various assemblies/ sub-assemblies. Verification of packing condition/inspection certificate of trade item before taking the same in books. There is need to check that fixtures various clamps and features are functional, as this will ensure proper fitment of components in Jig.
Action Taken	<ul style="list-style-type: none"> Instruction regarding inclusion of In-process inspection requirement by TPI in PO has been issued in Feb/ Mar'24. Drawings of storage stackers/ stands for storage of critical sub-assemblies like Under Frame complete, Side Wall, Roof & End wall has been issued vide letter no RBL-MD 46471 dated 07.03.2024. Drawings of pallets/ fixtures for packing & transportation of critical sub-assemblies like Under Frame complete, Side Wall, Lav. Side Wall, Roof, End wall, Final Roof element, Bogie Frame, and Bogie Bolster have been issued vide letter no. RBL-MD 46471 dated 02.04.2024. Drawings of Jigs & fixtures for use in manufacturing of critical sub-assemblies like Under Frame complete, Front part, Side Wall, Lav. Side Wall, Roof, End wall, WTCC, Final Roof element, Bogie Frame, and Bogie Bolster have been issued vide letter no. RBL -MD 46471 dated 04.04.2024 for incorporation in tender conditions.

10. CCA and Pilot sample approval:

Item	Description
Name of work done	<p>CCA Approval:</p> <ul style="list-style-type: none"> RITES has been engaged by MCF (through MOU) for carrying out capacity and capability assessment of all vendors against developmental orders placed by stores. MCF use to convey the details like address of firm and item for which assessment is to be carried out to RITES Vendors pay fees directly to RITES (fee decided in MOU) RITES carry out CCA and submit their recommendation to MCF CDE is competent to accept/reject the recommendations and final suitability/un-suitability is conveyed to stores. <p>Prototype approval:</p> <ul style="list-style-type: none"> In order to fast track the prototype approval against developmental order/first time supply from a vendor suggestion from all M&C Lab, Production, Electrical & stores taken and a detailed comprehensive procedure for prototype approval was issued vide letter no.RBL -MDS33211(Part File) dated 01.11.2023 for implementation.

Planning

1. Process Planning & RSP:

- The packing instructions of 26 bogie items prone to rusting has been up-graded first time from old/jute bags to wrapped with biodegradable sheet and packed in wooden/iron boxes. The shell assemblies packing condition has been revised incorporating the design of transportation fixture in order to avoid transit damage.
- Working instructions of Bogie general arrangement with air spring on Godrej assembly line, assembly of wheel set for MEMU coaches. In order to comply PCME instructions and for better understanding of staff at production stage, process planning has started issuing WI in bilingual language i.e. English & Hindi and till now following WI has been issued bilingually:
 - (i) Bogie general arrangement with air spring on Godrej assembly line.
 - (ii) Fabrication of Bogie bolster, Bogie frame & Side frame (LH & RH) for air spring bogie.
- Surplus inventory of approx 5 Cr. had been spared on material assistance under debit-credit to various Zonal Railways, 96 Dummy bogies of approx 20 crore value were spared from MCF to various Zonal Railways and 34nos. cracked bogie frames of approx 1 crore have been spared to various Zonal Railways. Thus total saving of approx 26 crore has been achieved at MCF in FY 2023-24.
- Stream line of work order system by shifting from multiple work order system to single coach work order in order to precise account of material and man power.
- Despite constraints in Wheel & Axle supply and without hampering availability of Bogie and Wheel disc for own coach production, 207 Bogie and 66 Wheel set has been dispatched to Zonal Railways under RSP in FY 2023-24. There is an increase of 78 Bogies (approx 60%) & 58 Wheel set (approx 725%) as compared to Bogies & Wheel set supplied in FY 2022-23. The details of Bogie and Wheel set supplied is as follow:

RSP for FIAT BOGIES							
RSP P.B. No.	RSP sanction (a)	Supplied upto 31.03.2023 (b)	Balance RSP on 01.04.2023 c=(b-a)	Current year supply		Total supplies f=(b+e)	Balance to be supplied g=(a-f)
				During the month (March'24) (d)	Cumulative supplies upto 31.03.2024 (e)		
613/19-20,	376	376	0	0	0	376	0
547/23-24,	160	140	20	0	12	152	8
566/23-24,	408	377	31	0	8	385	23
618/23-24,	125	124	1	0	0	124	1
707/22-23,	34	34	0	0	0	34	0
681/23-24,	540	98	442	0	187	285	255
Total	1643	1149	494	0	207	1356	287

RSP for COMPLETE WHEEL SET							
RSP P.B. No.	RSP sanction (a)	Supplied upto 31.03.2023 (b)	Balance RSP on 01.04.2023 c = (b-a)	Current year supply		Total supplies f = (b+e)	Balance to be supplied g = (a-f)
				During the month (March'24) (d)	Cumulative supplies upto 31.03.2024 (e)		
640/19-20,	500	500	0	0	0	500	0
580/22-23,	354	354	0	0	0	354	0
575/23-24,	300	173	127	0	36	209	91
664/23-24,	218	0	218	0	24	24	194
682/23-24,	254	0	254	0	6	6	248
Total	1626	1027	599	0	66	1093	533

2. Shell Planning:

CAI (Coach Alteration Instruction) implementation in LHB coaches has done as detailed below:

- Cut-in of SS Trough in place of FRP Trough in all types of LHB AC coaches from FY 2024-25 has been implemented.
- LSLRD variants are to be manufactured with wider window as per new design from FY 2024-25.
- LWACCW coaches are presently manufactured with 2T original design from FY 2023-24.

3. Bogie Planning:

- Procurement of bogie item in KIT to reduce the tender case & easy availability of items.
- Stocking of MEMU & VANDE BHARAT item, procurements of VANDE BHARAT item after stocking.
- To control inventory, delivered excess items to zonal railway with coordination of store and shop as per their requirements,
- 100% switch over in air spring type bogie as per Railway Board guideline except RDSO coach.
- 100% implementation of CAI (Coach Alteration Instructions.) as suggested by MCF Design/RDSO.
- Demands provided to store for procurements of bogie item (LHB, MEMU, Vande Bharat, RSP) timely as per revised production plan issued by RB for FY. 2023-24.
- MCF has started procurement of split type brake disc first time in Indian railway, distribution to zonal railway start as firm supplied item.

4. Furnishing Planning:

- Reduction in PLs: In reference to Railway Board guidelines to reduce the no. of tenders & PLs and to procure items as per higher assemblies or sub-assemblies, Furnishing Planning has taken multiple steps to reduce the nos. of PLs. The same are detailed as under:

- There are typically 35 to 40 uncommon furnishing items in each coach variant. By choosing to furnish a variant on a turnkey basis, these uncommon items are procured through a single PL. This results in a reduction of at least 34 PLs for each coach variant manufactured on a turnkey basis. For the fiscal year 23-24, MCF has planned to manufacture 09 variants exclusively on a turnkey basis. These variants include LWSCZ, LWSCZAC, LWFCZAC, LWCBAC, LWFAC-Tejas, LWACCW-Tejas, LWACCN-Tejas, MEMU-MC, and MEMU-TC coaches.
- Reduction of PLs has also been done by clubbing similar items like all the types of FRP panels in the form of set or kit.
- Procurement of higher assemblies or sub-assemblies in order to reduce the no. of PLs.
 - The restoration of manufacturing "Original LHB AC 2T coaches" was accomplished in FY 23-24. Previously, this variant was manufactured using LHBAC 3T Shells.
 - As RCF has been designated as the nodal agency for LHB coaches and ICF for Train sets and MEMUs, MCF has planned cut-in to manufacture LHB coaches following RCF's design guidelines. Similarly, for Train sets and MEMUs, MCF has adhered to ICF's design specifications during manufacturing.
 - Material planning for furnishing items has been successfully and efficiently carried out with a very small team for F.Y. 2023-24 and 2024-25, following the Railway Board production programme, even in the absence of an "Enterprise Resource Planning" module.
 - MCF manufactures 40% to 50% of its targets on a turnkey basis. Consequently, the turnkey document format has been restructured and improved collaboratively by the Design and Planning departments, with inputs from Production and Quality in FY 23-24. This initiative aims to eliminate the issues encountered in the past.

5. Other work of planning department:

- Preparation of summarized revised estimate & final modification estimate for F.Y. 2023-24 and budget estimate for F.Y. 2024-25 under PH-7200 has been done.
- Streamline the coach costing procedure due to short coming found in AIMS module.
- Coach costing for the LWACCN, LWACCNE, LWACCW, LWSCN, LWS-DD, PARCEL VAN, LWSCZAC, LWFAC, LWCBAC and LWLRRM have been done in record time.
- 1st time costing has been done for the LVPH & LWACCNE variant in view of MCF.
- Reconcile the Coaching RSP data and communicated to Railway Board.
- Preparation of summarized Revised Estimate & Final Modification Estimate for F.Y. 2023-24 and Budget Estimate for FY 2024-25 under PH-7200 has been done on the basis of Estimates Received from different Deptt./sections of MCF and Coach Costing & Earning estimates.
- Distribution of Budget Grant 2023-24 under PH-7200 among different Deptt./sections of MCF has been done.
- Audit of IMS and ISO: 22163 has done in planning office successfully.
- Audit of IMS, ISO: 22163 and ISO: 3834 done in other departments/Shops by ISO internal Auditor nominated from Planning office.
- The damaged/broken furniture in the planning office was repaired and made usable. Due to this, thousands of rupees were saved for the Railway.
- 3 new computers and UPS were provided in the planning office. This increased the working capacity of planning office.



1. Furnishing Quality Control:

No. of Coach inspected	Audit inspection	Bio tank testing	CMM	RSC uploaded
1733	708	1719	00	1714

1.1 Activities of furnishing quality control:

- Coaches furnished at furnishing & finishing shops are inspected at stages of floor & PVC, Window & Ceiling, Partition, Moulding & Door, Plumbing, Lavatory and Seat & Berth with Stage Audit, Process Audit, Self Inspection (SIP), Quality Control Inspection (QCI), Cross Examination (X-Point) and Final Inspection for ensuring complete quality of Product.
- RSC (Rolling Stock Certificate) Generated at PMS (Production Monitoring System) Portal for easy and early availability to concerned Railway.
- DDG- 329 Coaches Inspected.
- SLRD- 48 Coaches Inspected.
- LHB Power Car LWLRRM -90 Coaches Inspected.
- LWACCN- 210 & LWACCW- 204 Coaches Inspected.
- LSCN & LSCN (G)- 303 Coaches Inspected.
- LHB Chair Car AC LWSCZAC- 06 Coaches Inspected.
- VPH- 12 Coaches Inspected.
- Tejas- 66 Coaches Inspected.
- LWCBAC- 12 Coaches Inspected.
- MOZ- 11 Coaches Inspected.
- FAC- 45 Coaches Inspected.
- FCWAC- 02 Coaches Inspected.
- LWACCNE- 312 Coaches Inspected.
- Bharat Gaurav- 75 Coaches Inspected.
- MEMU- 08 Coaches Inspected.

2. Bogie Quality Control:

No. of bogie frame, bogie bolster and components measured on 3 D -CMM	QCI. of bogie frame and bogie bolster	Inspection of bogie assembly load testing
763	543	3414

2.1 Activities of Bogie Quality Control:

- Bogie fabricated at bogie assembly inspected thoroughly in accordance with SIP (Self Inspection Performa) submitted by production.
- Screws are checked for proper torque and air brake pipe fitting are also checked.
- Bogie final assembly is inspected for load testing.
- After completion of all records & SIP, the complete set of SIP submitted to Quality Centre office for filling in concern coach file for record.
- Bogie RSC prepared and submitted to furnishing quality for uploading.
- Bogie quality has played vital role with production wing for clearing 36 (20+16) nos. bogies of Mozambique Railway and MEMU coaches also.

- Bogie quality also ensuring through third party audit inspection by M/s RITES

3. Wheel Quality Control:

S.N.	Nos. of axle measured for seat and roughness values	Nos. of wheel disc measured for bore and roughness values	Nos. of complete wheel set checked in audit inspection	Nos. of CTRB Checked in audit inspection
1	671	659	1116	1116

3.1 Activities of wheel quality control:

- Machining of semi finished axles and wheel discs, prefitting of brake discs and complete fitment of Machined and bought out components is observed at all stages of integrated wheel and axle assembly Line.
- QC has advice to adjust the roughness values of axle seating area during Grinding operation and wheel disc bore burring boring operation for achieving better interference in pressing operation and also minimise rejection.
- Wheel quality section has ensuring parameters of complete wheel set as prescribed in drawing such as wheel distance, wheel diameter, axle journal seat, wheel disc and brake disc seats on regular audit basis.
- Wheel quality section has taking special attention for proper fitting of CTRB's with its axial clearance, proper tightening torque of M20X60 mm bolts and application of sealant in backing ring of CTRB.
- Wheel quality also ensuring work of third party audit inspection by M/s RITES.

4. Shell Quality Control:

1- AUDIT INSPECTION (Sample checking)

i) Sheet metal shop:

S.No.	Activity Plan	No. of inspection of Assembly
1.	Dimensionally of Sheet metal components	1162

ii) Fabrication shop:

S.No.	Activity Plan	No. of inspection of Assembly
1.	Visually and Dimensionally inspection of Side wall	283
2.	Visually and Dimensionally inspection of Lav. Side wall	817
3.	Visually and Dimensionally Roof	164
4.	Visually and Dimensionally End wall	18
5.	Visually and Dimensionally of Under frame.	159

iii) Shell assembly:

S.No.	Activity Plan	No. of inspection of Assembly
1.	Undulation of Side wall (shell assembly stage III) -	1415
2.	Dimensionally inspection of shell (shell assembly stage -I)	1466

iv) Shell audit done by MCF (Shell inspection done by RITES):

S.No.	Activity Plan	No. of inspection of Assembly
1.	Shell audit done by MCF(Shell inspection done by RITES)	188

2-(100% INSPECTION)

S.No.	Activity Plan	No. of inspection of Assembly
1.	Total shell rollout in paint shop (April-2023 to March-2024)	1624
2.	Inspection of Shell Assembly (QCI)	1671 nos. (QCI done by shell/QC)
3.	X-point	1662

4.1 Activities of shell Quality Control:

- All shell assembly are inspected according to SIP, quality control inspection (QCI), Cross examination (X-Point) and final inspection for ensuring complete quality of product.
- Audit inspections of Shop made and bought out items (Roof, Side wall, Lav. Side wall. Under Frame, Sheet metal components, Shell assembly stage- I & III) are carried out.

5. Activities of Coach Complaint and monitoring cell (CCMC):

Cases of failure reported by Railway	Mechanical	Electrical	Total
(As per IWMS Portal) Cased received (UDM accepted case)	4241	517	4758
Case closed with finalization of warranty claim.	3897	495	4392
Pending	344	22	366

5.1 Performance of CCMC:

i. Failure within 100 days.

Year	Coach Complaint (within 100 days)	Coach turned out in 01 Year	Coach complaint per 100 coach
2022-23	119	1461	8.15
2023-24	30	1684	1.78

ii. Customer Complaint index (Mech.)

Year	Coach Complaint	Coach turned out in last 02 years	Coach complaint per 100 coach
2022-23	7951	3235	245.78
2023-24	4241	3336	127.13

5.2 Activities of CCMC:

Coach complaint portal at MCF site is checked daily and complaint received in portal is put-up for further action.

- Monitoring of warranty claim compliance accordingly.
- A lot of complaints are being increased now a days and total pending complaints is 366. Concerned firms have been informed and despite many reminders, firm are not attending the complaints. There is no guideline/policy for redressal of warranty complaints against the firm's w.r.t. penalty, time limit to close the complaint and initiate monetary deduction by store and finance department. There is also no quality rating system adopt in procurement of items.

6.0 Activities carried by third party:

Inspection of Coaches manufactured by MCF/RBL is being carried out through third party inspection by M/s RITES Limited Delhi as internationally resounded organization.

M/s RITES Limited Delhi is also engaged for the stage audit inspection from 26.05.2022 for assembly and sub assemblies manufactured in-house. Further the inspection of jigs & fixtures for shell & Bogie assembly is also carried out by M/s RITES Limited Delhi.

7.0 M&C Lab and RI wing:

1. Testing of 1536 samples received in consignee, audit, and prototype done this year 2023-24.
2. 218 number of NCRs are received from shop floor are scrutinised and confirmed this year 2023-24
3. 7817 axles are checked by NDT technique-MPI in wheel shop this year 2023-24.
4. 1580 number of Shells checked by DPT in shell shop this year 2021-22.
5. 1674 number of painted shells are inspected and cleared from initial to final stage with help of outsourced inspectors.
6. New M&P procured Limited Oxygen Index, Water testing module, UTM IKN, UTM 2.5 KN to enhance efficiency of the lab for year 2023-24.
7. M & C Lab got NABL accreditation with is valid up to 15.07. 2024 Renewal of NABL certificate & documentations against rejection attended by M & C officials.
8. 135 Nos. of Joint inspection against rejection attended by M & C officials
9. 3811 consignments of Incoming materials checked visually in Depot for F. Y. 2023-24.

8.0 ISO Cell:

List of International Organization for Standardization (ISO) Certificate obtained by MCF.

S.N.	ISO certificates	Validity
1.	ISO/TS 22163:2017 (IRIS)	23.10.2022 – 29.07.2025
2.	ISO 9001:2015 (QMS)	23.10.2022 – 22.10.2025
3.	ISO 14001:2015 (EMS)	23.08.2021 – 26.08.2024
4.	ISO 45001:2018 (OHSAS) Replaced by ISO 18001:2007	31.12.2022 – 30.12.2025
5.	ISO 50001:2018 (En.M.S)	04.09.2021 – 03.09.2024
6.	ISO 3834-2:2005 (WMS)	01.12.2023 – 30.11.2026
7.	5-S Methodology(Workplace Organization System):	25.11.2023 – 24.11.2025
8.	ISO/IEC 17025:2017 (NABL)	16.07.2022 – 15.07.2024
9.	Green Co Rating System	07.09.2023 – 06.09.2026

Green Co Platinum certificate issued by Confederation of Indian Industry for better performance in environmental improvement issues in water, energy, waste, emission of CHG. Etc. 5S Methodology for Workplace Management System issued by Global standard.

9.0 Electrical Quality:

1. Audit Inspection

S.N.	Activity Plan	Number of Inspection
1.	Electrical Quality control Inspection for Stage-III & Stage IX	(i) Non AC Coaches-31 Nos. (ii) AC Coaches- 114 Nos.

2. 100% Inspection

S.N.	Activity Plan	Number of Inspection
1.	Final Inspection	(i) AC & Non AC Coaches - 1693 Nos. (ii) Mozambique Coaches - 11 Nos. (iii) Memo Coaches (Motor & Trailer coach)- 08 Nos.

3. Activities of electrical Quality control:

All electrical Quality are being checked as per Stage SIP & Quality check sheet. Apart from that stage audit for pre-ceiling & cable route inspection is also being done for improving the quality & safety of coaches.

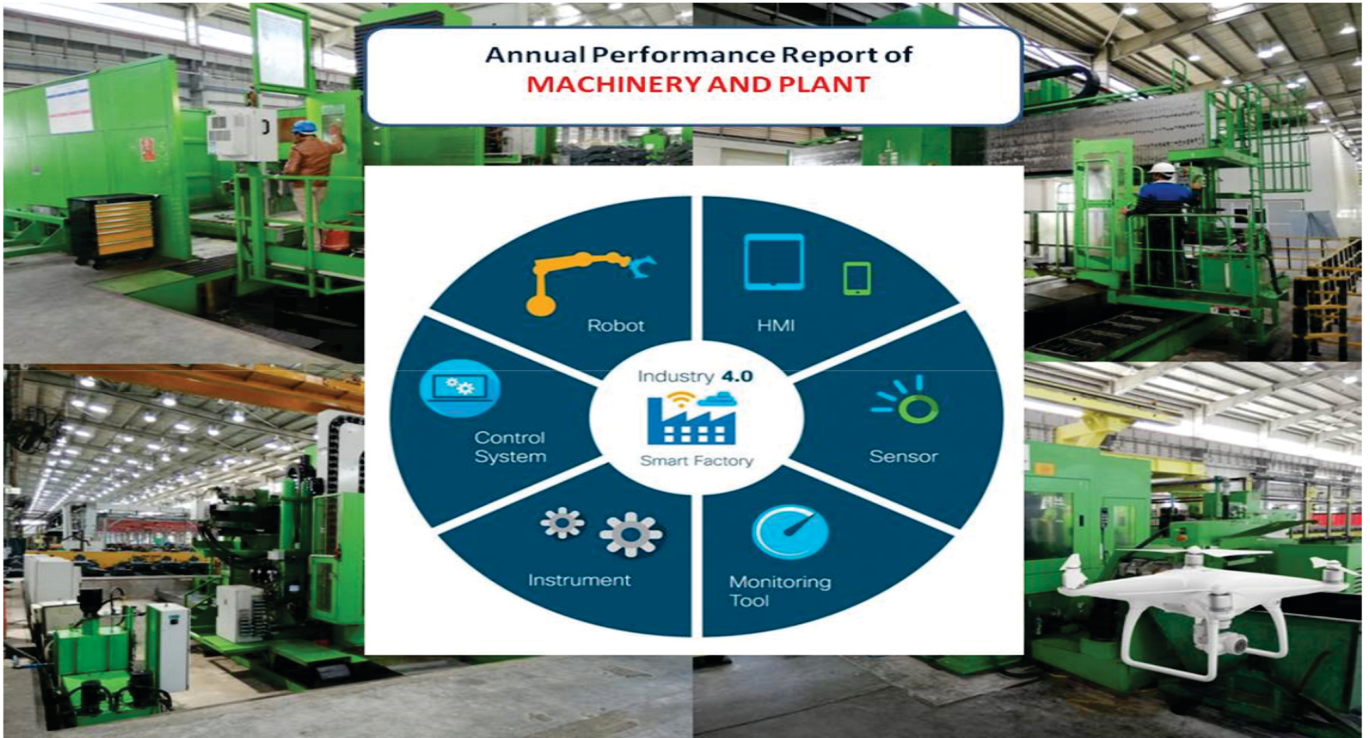
IT

Initiatives and Innovations for the year 2023 -2024:

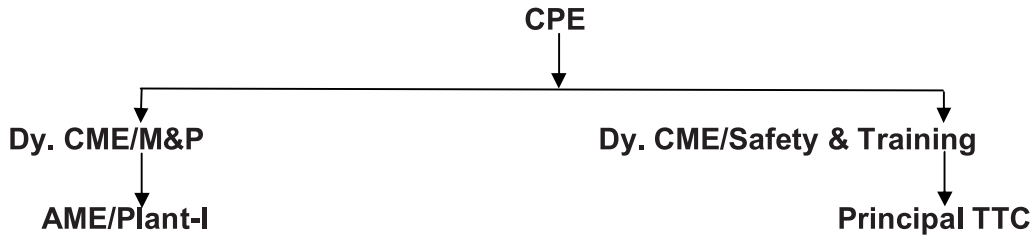
S.N.	New Initiative & Innovations	Related Picture
1.	Execution, Modification & troubleshooting of QR Code Based Gate Pass Management System for Contractual Workers.	
2.	Design, Development & execution of Daily Complaint Management system for IT Equipments.	
3.	Extention of MoU with Railtel & procurement of VPN for running e - office on ISPs other than Railtel.	

4.	Procurement against condemnation of IT - Equipements (PCs, Printers & UPS) Phase -I 75% completed.
5.	End Point Security implemented in MCF on all PCs.
	S&T
6.	High Speed Internet facility provided through Optical Fibre in Type -VI Quarters.
7.	Batteries of Township Exchange replaced to improve backup from 5-10 minutes to 3 HRS approximately.

Machinery & Plant



ORGANISATION STRUCTURE



Contact details of Plant Department

Name (Shri)	Designation	Contact No.	Email ID
A.K. Soni	CPE	7318060403	cpemcfrbl@gmail.com
S.K. Mishra	Dy.CME/M&P	7318060430	dycmemnp54@gmail.com
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Shivam	Principal TTC	7318060436	pttcmcfrbl@gmail.com
M.L. Meena	AME/Plant	7318060457	mohan.0024@gov.in

1. OBJECTIVE OF PLANT DEPARTMENT:

- Maintenance of all CNC, Non-CNC machines, EOT cranes, Hoists, Jib cranes, wire rope & slings, Traverser, Lifting jacks, Transfer trolleys, compressors, blasting machines, painting machines, Industrial and transport vehicles and various others equipments.
- Maintenance and safety measures of LPG installation, Gas bank, Testing rigs and weigh bridges, automated storage & retrieval system (ASRS) etc.
- To draw and implement periodical preventive maintenance schedules.
- Planning and procurements of maintenance spares (Mechanical & Electrical).

- Calibration of measuring Instruments of the working area and traceability to national/international standards in calibration.
- Maintenance of electronic and electrical equipments of all Machinery & Plant including material Handling equipments
- Planning and procurement of spares for the electronic and electrical requirement of Machinery & Plant including SRM items.
- Calibration of Electrical & electronic instruments of the working area and traceability to national/international standards in calibration.
- Repair and maintenance of more than 1000 nos. small tools (hand drills, cutter etc.)
- Working and deployment of Fire fighting equipments and sensitization of staffs.
- To identify instructions for safe working of operations/users/visitors and to display them on equipments and plants prominently.
- Implementation of ISO standards like: ISO 3834:2005.Green Co, ISO 22163 (IRIS), NABL, 5S etc. and others in Plant area.
- Implementation, operation of Industry 4.0 in MCF.
- Vehicle management of MCF/RBL official.

2. MACHINE SUMMARY:

S.N.	Types of Machines	Number of Machine
1.	CNC MACHINE	75
2.	NON CNC MACHINE	80
3.	LABORATORY INSTRUMENT	28
4.	MATERIALS HANDLING	424
5.	MH CHAIN & SLING	211
6.	TRANSPORT	218
7.	WELDING SETS	282

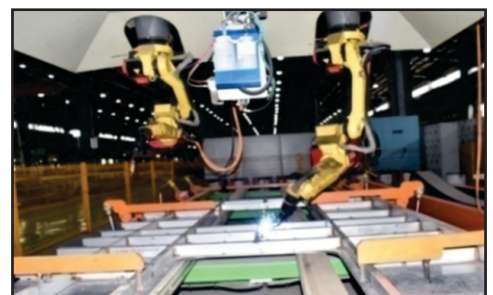
2.1 SHEET METAL SHOP:

The latest technology machines like Laser Cutting Machine, Laser Cutting & Welding Machine, CNC Press Brakes, CNC Hydraulic Press, stretch bend forming machine have been provided to manufacture shell components, Bogie and furnishing items with highest quality and repeatability.



2.2 FABRICATION SHOP:

The fabrication shop has been provide with four integrated Robotic lines for manufacture of under frame, sidewall, roof and end walls using high quality Fanuc Robots for MIG welding and Spot welding. Also B&C spot welding machine is available for side wall and roof welding using electrode type welding.



2.3 SHELL SHOP:

Side wall, under frame, roof and end walls are further assembled together on a Robotic cathedral Jig having flexible arrangement to assemble the shell and provide access to robotic arms to complete welding work automatically. Skin tensioning machines have been provided to strengthen the skin and prevent drumming effect.



2.4 BOGIESHOP:

In the Bogie Shop major machines such as Plate Straightening Machine, Under Water Plasma Cutting Machine for cutting of the various plates in profiled shapes, edge milling machine, painting line, plate blasting machine etc. have been installed. Plasma cutting machine is provided with angular cutting facility to reduce machining for edge preparation.

In this shop an manual bogie frame, bogie bolster manufacturing line are working in tandem further, conveyerised bogie blasting and bogie painting line has been set up for efficient painting of the bogie frames and bogie bolsters. For machining of the bogie frame and bogie bolster 6-axis bogie machining centre and bolster machining centre has been provided. The final qualities of the bogie frame and bolster are ensured by checking all the critical dimensions on 3-D co-ordinate measuring machine in a single setting.

2.5 WHEEL SHOP:

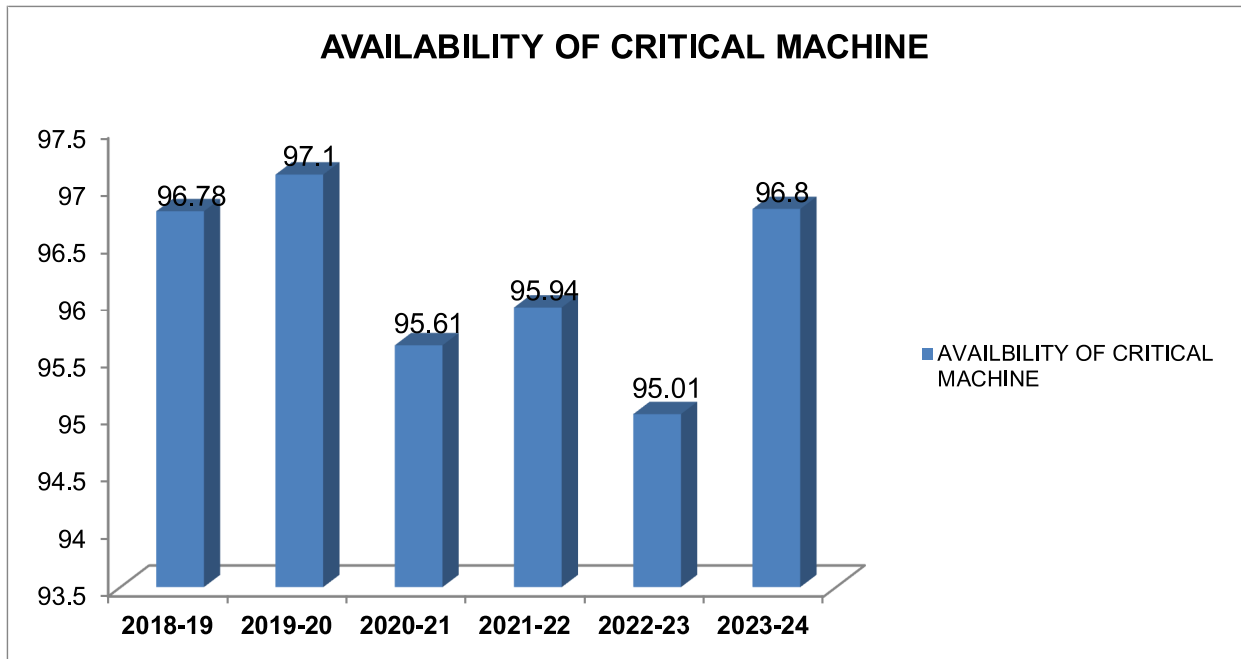
Wheel Line is totally automatic line where various stations work in tandem with synchronized gantry to perform all the machining operations on axel and wheel disc. Ultrasonic and Magnaflux testing, axel washing and auto dimensions measurement for matching the dimensions, pressing of wheel discs and brake discs have been also been provided . Portal wheel lathe and wheel balancing machine are provided for maintain final geometrical dimensions and balanced wheel sets. From this line one wheel set is produced in 18 minutes with minimum human interface.



2.6 PAINT SHOP:

Paint shop has been provided with the semi-automated painting facilities i.e. semi-automatic painting booth with environment control. PU painting is being done with electrostatic guns for airless spray painting and LPG ovens have been installed for drying painted coaches for achieving high level of productivity. For meeting environment and pollution control norms, integrated ETP plant has been provided.

3.0 PERFORMANCE SUMMARY OF PLANT DEPARTMENT:



4.0 INNOVATION, IMPROVEMENT & ACHIVEMENT MONTH VISE in FY-2023-24:

4.1 APRIL 2023:

MIS (Machine Information System) is vital software for preparing Preventive Maintenance schedule of machines i.e. weekly, quarterly, half yearly and yearly. There was error in Preventive Maintenance schedule for EOT, NCNC and TPT machine in MIS software, to attend this problem, IT department was called. IT team tries to resolve the issue but could not succeed.

MIS team looks this as challenge and resolves, the issue by taking following steps in MIS Software.

Prepared due date of PMS schedule of each machine after then open the switch board maintenance box of MIS Software then open the Preventive Maintenance date scheduling box. Set the NCNC, EOT, TPT due date in the history box.

After doing above activity the software give the desire result and PMS schedule for EOT, NCNC and TPT are made in April 2023 month.

Correct location for feeding data is searched by Team member by its own after trying so much time and without help of third party.

4.2 MAY 2023:

In CNC Wheel Press Machine of wheel line, during wheel pressing operation sprocket holding assembly & chain got broken, the broken piece removed by drilling and made new thread. New sprocket holding assembly manufactured in-house in Tool Room thus saved the breakdown time and resumed the production of wheel line same day. Original part had to come from OEM i.e. BBM, Italy which might look more than 8 weeks in arrival.

4.3 JUNE 2023:

The attachment no. 36 of Bogie Frame Machining Centre installed in Bogie shop is not working properly due to cutting tool could not align properly. After investigation it was found that the Curvic locating device of attachment-36 got damaged due to which attachment-36 did not rotate its actual degree.

Same locating coupler assembly arrangement of Curvic has been repaired and refitted in the attachment-36 and handed over the machine to production after successful running trial and avoid long breakdown.

Since machine is imported from Japan and above spare part procurement could take 6 to 10 week time.

4.4 JULY 2023:

The Argon gas consumption as compared to other production unit has found high in MCF. An audit had been conducted of Argo mix system. System of gas supply line has been improved by connecting all down take pipe with isolation cock along with Quick Release Coupling. All leakages in system have also arrested and make the whole system leak proof by checking with air @ 5kg/cm². Gas supply pressure has also reduced.

After taking all these steps, the consumption of Argon gas has been reduced from 3KL to 1.3KL per day thereby saving of argon gas is approx 60% per day.

4.5 August 2023:

A new Fabrication point was needed by production (SMS) for the work of fabrication such as WTTC in roof section, Door cut out and partition frame of shell.

Demand for the new Argo mix gas down take line was given on 02.08.2023 by Production (SMS) and the same was completed by M&P team of Gas ward by 08.08.2023 in a short span of time the new Argo mix gas pipe was constructed and made functional.

The work executed by M&P team on self stand alone without any external aid.

4.6 September 2023:

Transport shop of MCF/RBL is equipped with Hydraulic Tyre changing machine. The machine was provided with the fixture for Tyre changing by the supplier. However the fixture supplied with the M&P was not capable of pressing the Tyre with rim for Fork Lift Truck (FLT) of 5 Ton & 10 Ton.

With the sincere effort by M&P team of Transport shop a Ring Fixture is developed which is now assembled with rim and pressed together with Tyre. FLT capacity 3T, 5T & 1T can now be easily handled with the Tyre fitment Machine.

4.7 October 2023:

At robotic Roof bearer fixture, Position of sidewall adjusted on the fixture through moving stud/clamp provided on the fixture. The movable clamp has got damaged/worn out frequently due to heavy weight of the movable bar fixed at the end of stud and due to which operation is difficult.

Shell shop M&P staff makes an in-house arrangement to support heavy structure of movable bar & clamp and fix it into the fixture in order to minimize wear & tear of stud and for proper alignment of moving clamp.

Touch screen of HMI/Operation panel of the robotic machines in shell frequently damaged due to mishandling of material/hitted by some sharp object, display of the HMI/Operation panel has got damaged. For protection of display of the Operation panel, Shell shop M&P staff makes a protective covered in-house and fitted to every machine to avoid damage of the screen of the panel.

4.9 December 2023:

A break down (uprooted the mounting fastener of the loading/unloading platform station) occurred on 14/12/2023 in ASRS of Furnishing Store-II that hampered the issues of LHB coaches spare items

(Critical and noncritical) to the user department. To avoid the repetition of such type of breakdown the loading platform has strengthened by supporting the whole platform with the help of V-type vertical frame having thickness of 8 mm welded with 8 mm horizontal plate and fastened with 8 inch fastener bolts at four places.

4.11 Feb 2024:

Laser Cutting and Welding Machine- II (Make- M/s SIS, Korea) is installed in Sheet Metal Shop. The Gear Box of LCWM- II has been broken on 10.01.2024 and Shaft has broken in two piece this item was not available in spare cell that's way machine was under breakdown. The cost of this item is near about 2 Lakh.

So, the M&P team worked on this machine for in-house maintenance. The drilled has been done in both piece of shaft and weld with each other now machines have been handed over to production department and machine is working properly.

4.12 March 2024:

Oxygen gas supply through pipeline for FLCM machines.

Pipeline for supply of Oxygen gas in Shell shop and Bogie shop was already laid down, but due to some technical reason it was being not utilized. The existing pipeline network made functional with some modifications to minimize the load of Oxygen cylinder packs and ensuring uninterrupted supply of oxygen gas through Oxygen tank (13 KL) which is installed in Gas bank area. Following modifications have been made so for.

- Extension of pipeline from pillar no. D-47 to D-43 i.e. up to new FLCM in shell shop.
- Provision of down take and connection to oxygen manifold at new FLCM (Baykal Make).
- Connections of both oxygen manifolds of FLCM (Pro Arc make).
- Interconnection of existing oxygen pipeline to oxygen tank line at gas bank.

This effort of M&P section will help to minimize the manpower being used for handling of oxygen cylinder packs and also save revenue as the complete gas of cylinder can't be used due to low pressure.

5.0 Ongoing and proposed Special work in FY-2024-25

5.1 Industrial gas System

Provision of Decanting pumps at Gas bank: The Pressure inside the cryogenic tank are normally more than 14 bar while the mobile tanker pressure are much less than 14 bar depending upon the supply of mobile tanker. So to fill up the cryogenic gases (N₂, Ar & O₂) inside the tank from mobile tanker. The pressure inside the cryogenic tank is required to reduce to the limit of the feeding pressure of tanker resulting to loss of cryogenic gases by blowing in the air. So a proposal is moved to use decanting pump at gas bank to increase the feeding pressure of the mobile tanker (input pressure) more than the inside pressure of cryogenic tank to avoid loss of gases before filling of gases from mobile tanker.





Tanker Pressure



Vessel Pressure

5.2 Provision of premix (Dimix (Ar+CO₂)) gas pipeline in Bogie shop for new Robotic Welding Machine: New Robotic Welding is under installation in Bogie shop. For operation of this machine Premix (Dimix (Ar+CO₂)) gas supply is required. To get operational of this machine approximately 120 metre new pipeline with suitable down takes and its accessories will be required to install near Robotic Welding machine for providing premix gas.

5.3 Bogie shop:

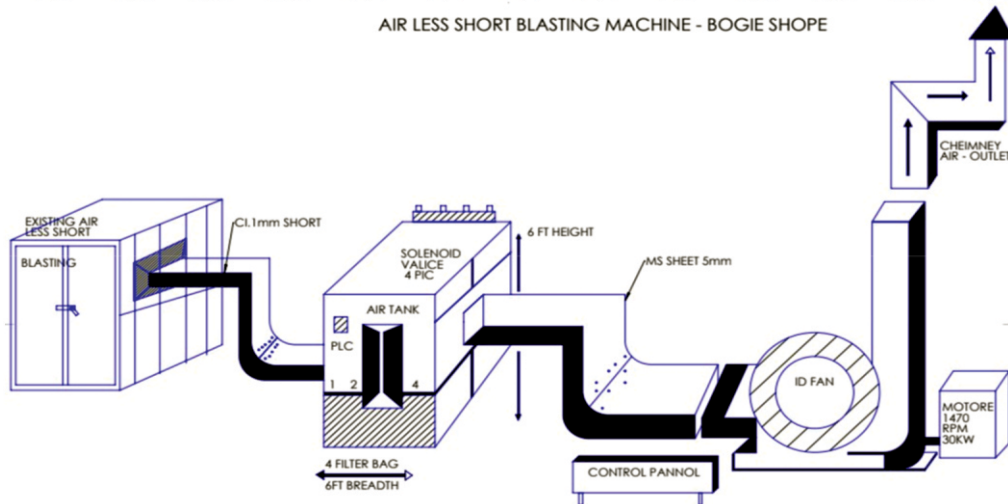
A shot blasting chamber is installed in Bogie shop to remove the rust & corrosion of different components by shot blasting process.

Presently due to absence of exhaust system, blasting particles as well as dust particles remain inside the chamber and these particles also spread outside the chamber and make environment polluted. Further inside the chamber these blasting particles spread over the floor, which makes it slippery, resulting heavy risk and polluted atmosphere to workers inside and vicinity of the chamber.



A project has been taken up by M&P section to resolve the above problem. This will be achieved by advanced fume extraction system, which will be conducted by sucking the inside fume by ID fan before passing it from filter tank.

The fume will be vented out of the shop after passing through filters. Further, the blasting particles after striking from the filter wall will be fallen and collected in bags thereafter for reuse.



5.4 Shell Shop:

Due to limited Program availability on B&C Spot welding machine (for sidewall) and SIS Line Spot Welding Machine, majority of the variants cannot be fabricated on these machines. So as per production requirement following variant for sidewall program have been decided to develop at earliest to achieve other requirement of production.

1. LWACCW (Original Design)
2. LWS (DDG)
3. LWCBAC
4. LWSCZ
5. LWFAC
6. LWFCWAC
7. LSLRD (Wider Window)
8. LWACCNE
9. LWFCZAC
10. LWSCN/WW (SIS)
11. LWS/DD (SIS)
12. SCR/WW (SIS)

5.5 Bogie and Shell Shop:

Work for repairing, servicing reconditioning of welding fume extraction and air purification system: SMS, Bogie fabrication shop, shell assembly have side wall section etc/reported failure of fume extraction system leading to impure air inside these shops.

Hence Repairing and reconditioning of welding fume extraction system have been take up by M&P section, this will make eco friendly environment by purifying the air. Hence reconditioning of the fume extraction system installed in this section has been initiated on priority.

5.6 Shell shop shower plant:

Provision of compressed air pipeline in shell shop shower plant: provision of compressed air in shell shop 07 nos. shower plant has been proposed by shell assembly section to ensure welding fault. As per practice only water sprinkler from shower, but to enhance to check leakage from welding area compressed air would be required identify welding failure.

So, thus project/work has been taken up to provide compressed air from existing compressed air

pipeline in all 07 shower plant to meet their requirements.

5.7 Compressor:

Provision of power capacitor (power bank) of 09 no's compressor: 09 nos. air compressors are installed to meet the requirements of different shops. The power factor of these compressors were measured and found out near to 0.8 (average).

Electrical department has proposed to increase the power factor more than 0.97.

So, the work has been taken up by M&P team to increase to power factor by using power capacitors (power banks) as per the load the these compressors resulting to saving energy.

5.8 Transport Shop:

Construction of shed for parking, repair and schedule maintenance of fork lift in empty space between spare cell and west side of the transport shop.

5.9 Wheel Shop:

Single unit-Panel chiller unit (AC unit) are installed in Panels of OP-10, 20, 30 & 100, while in OP-300, 210 & 200 double chiller units are installed. These chiller units are used to cool the drives, PLC, CPU & encoder etc. In case of insulation cooling resulting to malfunctioning of these drives.

It is felt that the frequency of failure of single unit panels are more than rate of failure/malfunctioning of panels of double unit chiller unit. This clearly emphasis that the single unit C/V units are inadequate to cool the panels. This may be due to 3 shift working, increase of average cooling temperature for last 10 year from the year of calculation of environmental temperature etc.

So, a project has been taken up by M&P department to resolve the issue of inadequate cooling the panels of (OP-10, 20, 30 & 100) by providing additional chiller units on them to keep the temperature of these panels limit within to reduce the breakdown period and facilitate 03 shift working to these machines.



(02 panel AC)

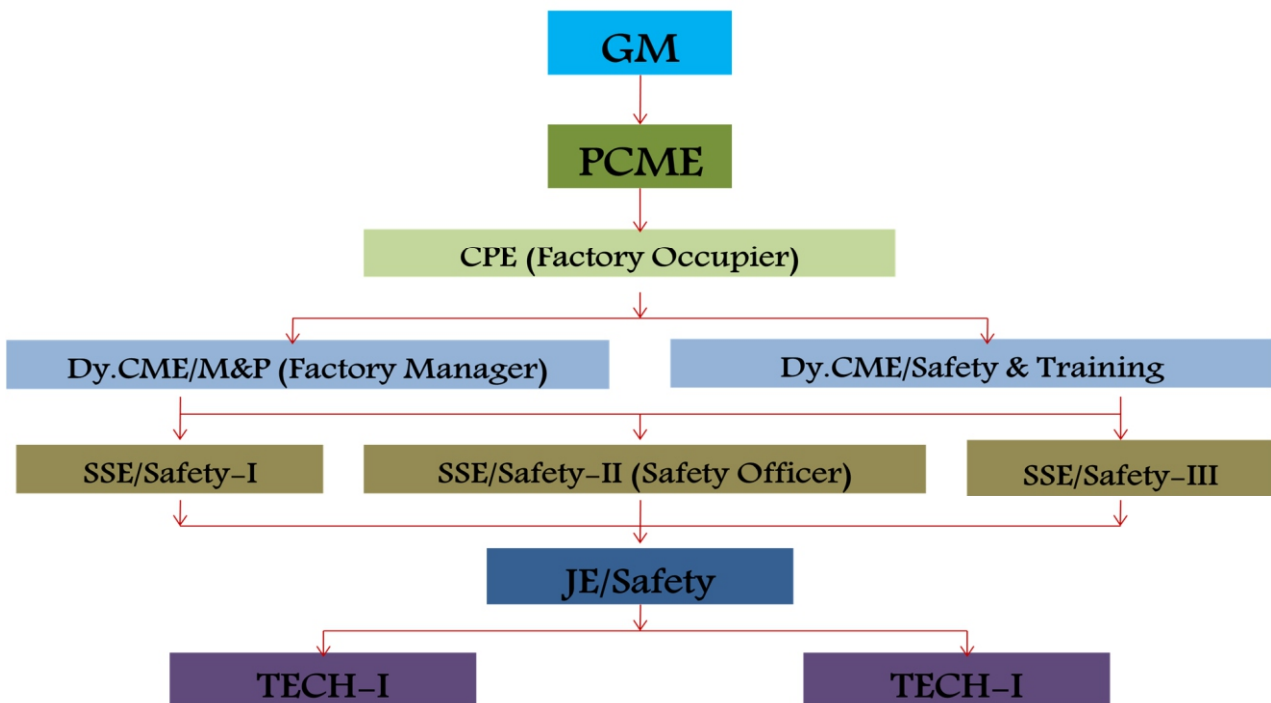


(01 panel AC)

SAFETY



SAFETY CELL TEAM



OBJECTIVE OF SAFETY CELL:

- To Advise and assist the MCF administration in the fulfillment of statutory obligation or otherwise concerning prevention of personal injuries and to maintain a safe working environment.
- Compliance of statutory (safety) obligation related to the Factories Act 1948 & The U.P. Factories Rules 1950.
- Counseling to inculcate safety awareness among railway employees & contractor staff.
- To design and conduct Shop floor and class room safety training programme for the prevention of personal injuries at MCF.
- To organize, campaigns, competition, contests and other activities to inculcate safety awareness among workers in the organization.
- To carry out safety inspection of regular working like various shops and stores depots in order to observe the physical conditions of work and the work practice procedures followed by the workers and to render advice on measures to be adopted for reducing the unsafe physical conditions and preventing unsafe actions by workers.

- To investigate serious accidents, industrial disease and dangerous occurrences reportable under Rules 110 & 112 of the U.P. Factories Rules 1950.
- Fire fighting operation inside/outside of factory premises. Maintenance (breakdown & Preventive) of Fire hydrant & Fire alarm system, Fire tenders, Fire Extinguishers.

A) ASSETS OF SAFETY CELL	
Total length of Fire Hydrant pipe Line (Working Pressure -6Kg/cm ²).	24 KMs.
Fire pump house.	4 Nos.
Jockey Pump	4
Diesel Pump	4
Main Electric Pump	5
Hydrant Point	289 Nos.
Hose Reel Drum	112 Nos.
Hose Box	289 Nos.
Remote LED	289 Nos.
Water Monitor	6 Nos.
Smoke Detector	672 Nos.
Fire Extinguishers DCP type, CO ₂ type, Foam type and water type	1161 Nos.
Manual call points	194 Nos.
Hooter	118 Nos.
Optical Beam detector (In Store Depots)	55 Nos.
Sprinkler	347 Nos.
CO ₂ Flooding System	35 Nos.
Breathing Apparatus	4 Nos.
Fire Fighting Personal.	24 (Contractual staffs)
Fire Tender	3 Nos.
Fire trolley pump.	1 No.
Fire Alarm panels	12 Nos.
Hydraulic Spreading Cutter with pump	1No.
B) Medical facilities	
Name of medical centre in campus:	Railway Hospital, MCF/RBL
Emergency Telephone No.	0535-2704290
Ambulance No. Hospital(Township),(Mini Admin)	05315-240000 05315-240001

Activities 2023-24:

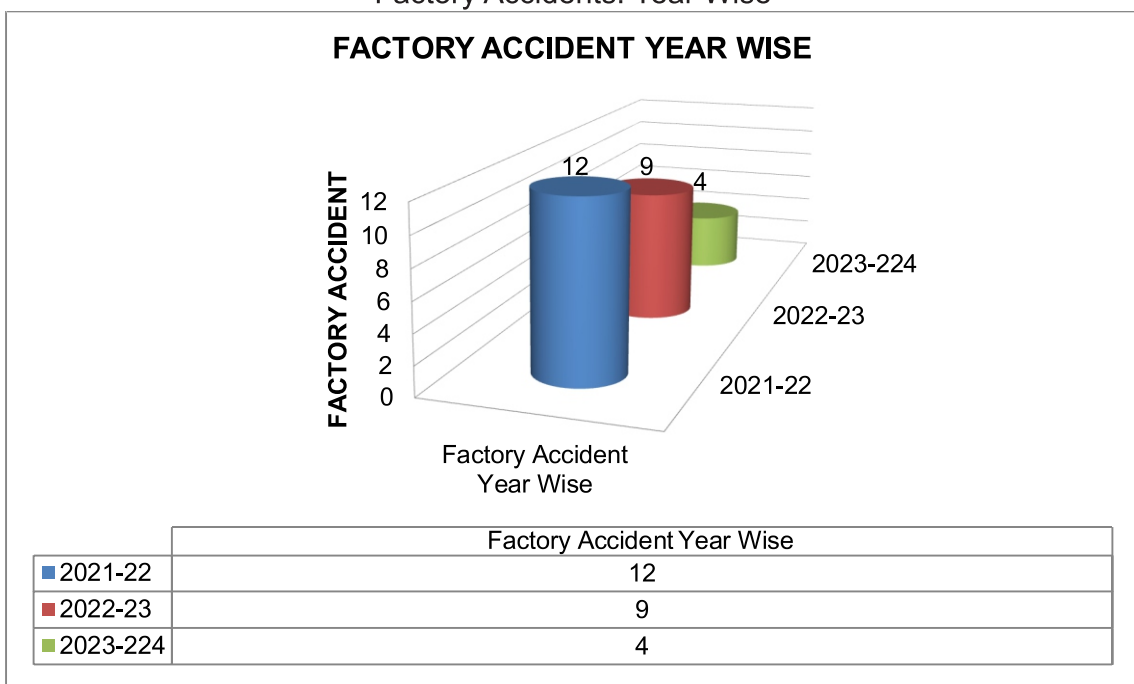
Description	Numbers
Safety meeting	03
Safety Counseling of SSE/JE/staff on shop floor	136
Mock Drill	03
Safety Classes in TTC	30
Fire Fighting Training to staff (Workshop + Colony)	141
Patrolling of fireman with fire tender in 3 shift	14037 KM

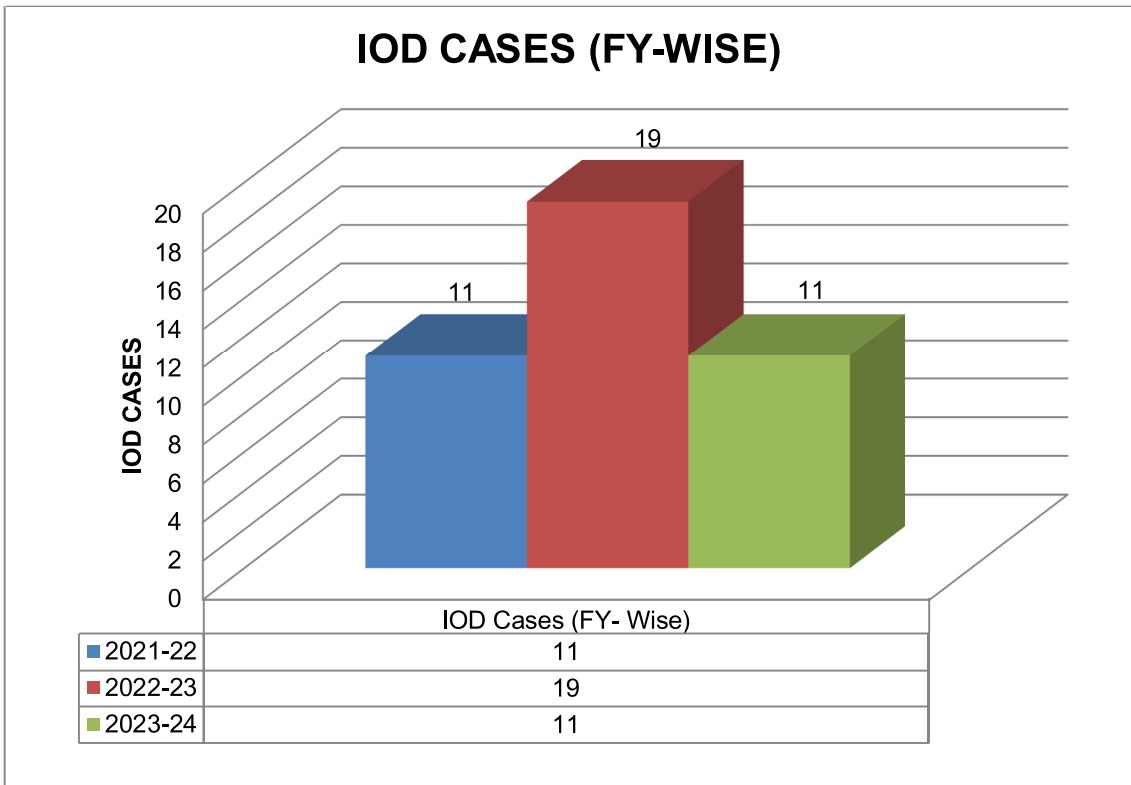
Other Activities:

- Pictographic instruction board has been displayed at various places of factory & Township premises for how to use the fire extinguisher of various types at the time of fire hazard according to type of fire.
- Public Liability Act Insurance Certificate has got renewed. Valid up to 19.07.2024
- Renewal of fire NOC of MCF has been done. Valid up to 12.07.2026.
- Wind sock installed at LPG Bullet area and Gas ward area for identification of wind direction in order to easy control of Fire hazard in these areas.
- Marking of water flow direction on Fire Hydrant Pipe line installed in MCF Premises to identify water flow direction in Fire Hydrant Pipe line.
- Assemble in assembly area after information of disaster. Assembly area Mark and written in Big capital letters as given bellow.
 - LLJ side of SMS shop
 - Between Bogie shop and Wheel shop
 - Between furnishing and finishing shop
 - RBL side of shell shop
 - RBL side of Furnishing shop
 - Mini Admin side of paint shop
 - RBL side of paint shop.
- Sign board of factory occupier & factory manager are installed at all entry gate of factory and residential gate in MCF premises.
- Re-facing of Fire Station, Fire Pump House in Factory and township premises.
- Celebrate National Safety week from 04.03.2024 to 10.03.2024 and publised Safety Bulletin-2024.
- Installed Speed limit board for Fork Lift Truck.
- Fire NOC certificate issued of Gyanda Bal Mandir for 3 years from 24.03.2024 to 24.03.2027.
- Authorization of Hazardous and other wastes certificate renewed. Valid up to 06.03.2029.

COMPARATIVE SAFETY PARAMETER

Factory Accidents: Year Wise





SAFETY EVENTS ORGANIZED DURING 2023-24



Fire Mock Drill



Fire Fighting Training



Safety Meeting



National Safety Week

Technical Training Centre

1. Total Trainee Days:

Capacity	Actual	% Achievement
53,600	55,774	104 %

2. Courses conducted:

S.N.	Course Description	No. of Courses planned	No. of Courses Conducted	No. of Trainees attended
1	Basic Training & Certification Course for Operators of Powered Industrial Truck (FLT's)	12	12	56
2	EOT Crane Operation Training	06	06	53
3	Safety Training for MCF staff	12	12	67
4	Refresher course for Mechanical Artisan staff	12	12	39
5	Welder Capability Assessment Training	As per requirement	---	564
6	Rail Kaushal Vikas Yojna (Total trained up to April 24 = 1101)	Special course	12	333
7	Act- Apprenticeship	As per requirement	---	98
8	Training of Promotee JE's (Mech. & Elect)	As per requirement	--	47
9	Induction Training of Artisan staff	As per requirement	--	58
10	Traverser operation training	As per requirement	--	27
11	Vocational Industrial Training for students of Technical Institute	As per requirement	---	277
12	Industrial visit of MCF/RBL for students of Technical Institutes/Dignitaries from other Govt./Private organizations	As per requirement	---	50
13	Field training for other Railways staff	As per requirement	---	527
14	ISO Welder Certification & Recertification	As per requirement	---	178
15	Pre-Selection Coaching	As per requirement	---	27
16	NDT Training	As per requirement	---	10
17	5S Championship Training	As per requirement	---	20

3. Number of trainees attended training:

S.N.	Description	No of staff trained
1	MCF Staff	670
2	Contractual Staff	527
3	RKVY	333
4	Act - Apprentice	99
5	Other Railway Staff	527
6	Vocational Students of Technical Institutes	277
Total trainees Trained		2433

4. Initiatives taken:

- Rail Kaushal Vikas Yojna (RKVY): 333 Trainees trained in Welding, Electrician, Basic Computer and Fitting trades in FY 2023-24. Total 1063 trainees trained till March 2024, surpassing Railway Board target by 6.3%.
- Total revenue of Rs. 2,16,648.00 generated by charging training fee from the firms towards training of their staff (Contractual) i.e. EOT, FLT & Safety training.
- On the occasion of "World Environment Day" (05th June 2023) a plantation drive was carried out by the officials & staff of TTC, More than 150 nos were planted.
- Successfully arranged the accommodation for the participants of 81st All India Railway men's hockey championship & 88th All India Railway athletics championship
- Welder Capability Assessment Training:-
Total welders = 552
Total welders Trained = 530
100% of welders (both railway & contractual) deployed in direct coach manufacturing activities have been trained

- 5. Rail Kaushal Vikas Yojna:** Target: 1000 trainees in 2.5 years w.e.f. Sept 2021 to March 2024. 30 batches have been conducted successfully and 1063 trainees have been trained.

FY 2021-22: 183 trainees trained

FY 2022-23: 547 trainees trained

FY 2023-24: 333 trainees trained

Trade	Passed Out		
	Male	Female	Total
Electrical	327	37	364
Welder	115	8	123
Fitter	192	12	204
Computer Basics	223	148	371
Carpenter	1	0	01
Grand Total	858	205	1063

Project Department

1.0 Annual Performance of Setting up Project for 2023-24

- (a) Modern Coach Factory, Raebareli has been set up at a total cost of Rs. 3192 Cr, for producing LHB design stainless steel coaches with production capacity of 1000 coaches per annum. Factory is being setup on turnkey basis and the contract is awarded to M/s IRCON International on nomination basis. During the FY 2023-24, following works got completed:

SN	Civil Work
1.	Construction of Gandmadan Ist Floor
2.	Construction of OHT (2No.)
3.	Construction of Rain Water Harvesting (4 Nos)

2.0 Annual Performance of Augmentation Project for 2023-24 .

- (a) A work of augmentation of production capacity from 1000 to 2000 coaches per year (Phase-1) is sanctioned vide Pink Book 2018-19 (Item No.2 of MCF). It is decided to run the factory in 3 shifts for getting 1500 coach capacity with the existing facilities. For additional 500 coaches/ annum detailed estimate is sanctioned at the cost of Rs.495.42Cr.During FY-2023-24, following works got completed.

SN	Description
1.	Construction of shell shop (246 m x 80M)
2.	Construction of Furnishing shop (360 m x 60m)
3.	Construction Finishing Shop (96m x 60m)
4.	Construction of store shed (104m x 40m)
5.	Construction of store shed (72m x 51m)
6.	Construction of 3Nos. Scrap Bin (30m x 20m)

(b) M&Ps Commissioned in 2023-24(Under Augmentation)

SN	Machine Name	Qty./ Set	Sanction Cost (Cr.)	POCost (Cr.)
1.	CNC Oxy Profile Cutting Machine	01	0.44	0.45
2.	Remote and pendent operation EOT crane 10/03T with shrouded DSL 360 m,Bay width 20m, Span 18.5m	03	1.28	01.32

(c) Following M&P also received during 2023-24 and are under Commissioning.

SN	Machine Name	Qty./ Set	Sanction Cost (Cr.)	PO Cost (Cr.)
1.	Diplory 25 T Capacity	100	1.13	1.05
2.	LHB Coach Twin Track (External) Surface Traverser 50T (covered) along with shrouded DSL 300m	02	2.68	2.76

3.	LHB Coach Automatic Painting Booth (wet type) with Drying Oven	01	10.29	10.62
4.	Bogie Frame Machining Centre	01	19.08	19.68

3.0 Annual Performance of PH-41 Project for 2023-24

(a) Following M&P received and commissioned during FY-2023-24.

SN	Machine Name	Qty./Set	Sanction Cost(Lacs.)	PO Cost (Lacs)
1	Hydraulic Press Machine of ‘‘C’’ type platform Cap-100 Ton	01	40.63	23.47
2	Pipe threading Machine	01	2.15	1.62
3	Weld Inspection scanner	01	32	31.25
4	Limited Oxygen index (LOI) Tester as per EN 45545-2	01	35.75	34.25
5	Power Hacksaw Machine	02	2.95	2.4
6	All Geared Pillar drill Machine	02	4.84	2.7
7	Hand Pallets Trucks Cap 2T-3T	03	0.9	0.58
8	Tipper Truck (8.5 CuM)	01	32.75	30.51
9	13 meter Working height Sky lift	01	24.00	24.67

(b) Following M&P also received during 2023-24 and are under Commissioning.

SN	Machine Name	Qty./Set	Sanction Cost(Lacs)	PO Cost(Lacs)	Remarks
1	Bosch Fixed Tripod	03	0.27	0.11	PH-41
2	Levelling Staff	03	0.006	0.01	PH-41
3	Hydraulic Tyre Fitment Machine	01	14.09	10.92	PH-41
4	Water testing Machine	01	9.85	10.33	PH-41
5	Electromechanical UTM (2.5 Kn)	01	12.44	12.44	PH-41
6	Electromechanical UTM (1Kn)	01	11.5	11.5	PH-41
7	Bogie Frame Machining Centre	01	2440.58	1968	PH-41

4.0 Financial Performance FY 2023-24:

(a) Utilization of fund under plan head 4100 for the FY-2023-24

(All fig. In Rs .Crs.)

Allocation Head	BG	FM	Actual Expenditure (2023 -24)
PH-41	19.62	13.16	15.95

(b) Utilization of fund under plan head 4200 for the FY-2023-24

(All fig. In Rs .Crs.)

Allocation Head	BG	FM	Actual Expenditure (2023-24)
PH-42	236.00	1153.85*	1154.66*

*This includes RS 1018.76Cr for acquisition of FWP.

The Project wise detail is as follows (PH-42)

(All fig. In Rs .Crs.)

Description	Abstract Project Cost	Detailed Sanctioned Estimate	BG-2023-24	FM 2023-24	Actual Expenditure (2023-24)	Cumulative Expenditure up to March-2024	% Utilization
Setting up project	1685.00	3192.00	22.00	15.55	15.55	3107.97	97.37%
Augmentation 1000 to 2000 Coaches	480.00	495.42	111.00	109.78	111.62	355.18	71.69%
Modern coach Factory Upgradation of critica 1 work centers of workshops		150.00	0.00	2.37	0.00	0.00	0.00%
Upgradation Improvement / augmentation of workshop (Umbrella work) Vande Bharat		157.00	103.00	7.39	8.73	13.18	8.39%
Acquisition of Forged Wheel Plant at Raebreli Work ID 050042231026 /2023- 24		2300		1018.76	1018.76	1018.76	44.29%

Electrical Department

A. Power supply system of MCF/RBL consists of the following:

1. 132/11 KV MRS (Main Receiving SubStation) – 02 X 12.5 MVA Transformer
2. 33/11 KV Sub Station (ASS) - 01 X 10 MVA Transformer
3. Auxiliary SubStation (ASS) – 10ASS X 03T/F +2 T/F=32 no. each 750 kVA Transformer + 02 nos. 800kVA Transformer
4. Compact SubStation (CSS) – 11 X 750 kVA – 11 nos. Transformer
5. Compact SubStation (Solar CSS) – 03 X 1250 kVA – 03 nos. Transformer
6. **Solar Power Plant -**
 - a) Installed Capacity - 3.13 MW (Land based, grid connected, MCF Owned-Capex Mode)
 - b) 635kW rooftop solar is under installation at Admin building and TTC building.
7. **DG sets**
 - a) 04 X 1010 kVA installed at 132/11 kV MRS
 - b) 02 X 380 kVA DG set, One at MCF hospital, another one is used as a portable genset in the factory area of MCF.
 - c) 01 X 125 kVA DG set at PME Office / ORH Lucknow.
 - d) 01 X 10 kVA DG set at MRS for emergency control supply
 - e) 01 X 30 kVA single phase at ORH.
 - f) 02 X 30 kVA (received from IRCON)
 - g) 01 X 82.5 kVA (received from IRCON)

B. Sanctioned Load-

2. 07 MVA at 132 kV line, UPPTCL (under open access)
1. 0 MVA at 33 kV line, UPPTCL (under open access)

C. Energy details -

Overall Energy consumption during F.Y. 2023-24 including Township (based on SCADA reading) – **185.02 Lakh units**

Power generation by MCF owned solar plant during F.Y. 2023-24 – **37.91 Lakh units**

D. Miscellaneous Electrical Assets:

Total no. of Day Light Pipes – Approx. 1751 nos. (in factory and TTC area)

A. Energy Conservation/ Expenditure Control measures

1. For energy conservation occupancy sensors are being installed in various buildings of MCF. Total 380 no. occupancy sensors have been installed till date.
2. Sixteen (16) no. smart Energy Meters have been installed at ASS-5 for better monitoring of Energy consumption of data centers located inside Admin building.



Occupancy Sensor



Smart Energy Meter

B. Safety Measures

1. LV safety audit for three installations have been done at MCF/RBL in reference to Railway Board guideline (No. 2021/EEM/113/1 dt: 18.10.2022).
2. As per RB guideline safety drive of LV system installations was conducted. During drive all electrical installations have been checked for earthing.

C. Reliability Measures

1. To improve reliability of power supply, work for the HT Ring Main system from 33kV substation to CSS-06, ASS-1,2,3,6,8 and 11 is under process.
2. To improve the lighting system in MCF, 53 nos. new street lights and additional street lights (53 nos.) and high mast lights (04 nos.) at various locations in the factory and township area has



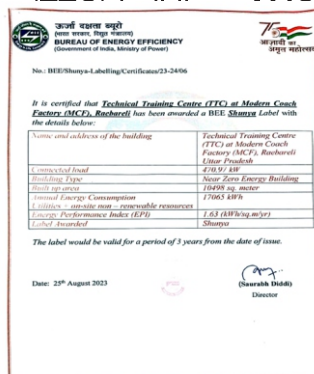
3. Electrical work of Transit ORH (First floor of Gandhmadan) has been completed.
4. Electrification work of New furnishing shop and New finishing shop under Augmentation of production capacity from 1000 to 2000 coach per annum have been completed during F.Y. 2023-24.

E. Renewable

1. The solar plant capacity at MCF has been enhanced by 130kWp during the year making total installed capacity to 3.13 MW. This plant has generated 37.91 lakh units during F.Y. 2023-24 and saved approx ₹ 1.97 Cr.
2. An LOA for installation of a 635kW solar plant at TTC and admin building has been issued.

F. New Initiative

1. MCF has switched over to the RBS app (Railway Bijli Samadhan) for online complaint and redressal system regarding electrical power supply in service buildings as well as residential area.
2. Electricity module in I-PAS system has been implemented at MCF/RBL. Now onwards, all details of electricity consumption can be directly fed by the Electrical Department and employees may view their electricity consumption and energy charges in RESS app.
3. The Technical Training Centre at Modern Coach Factory (MCF), Raichur has been awarded a BEE Shunya label.



Civil Engineering Department

General-

- 1.1 Modern Coach Factory, Raebareli is a Coach Production Unit of Indian Railway, situated at town Lalganj in District Raebareli. It is spread over large area of 540 Hectares of land. Out of this workshop area is 167 hectare, township area 354 hectares and remaining 19 hectares is used in rail connectivity from Lalganj Railway Station to workshop.
- 1.2 Workshop comprises approx. 2.53 lakh sqm covered structures. In township, there are 2259 quarters (1124 type-II, 760 type-III, 232 type-IVDS, 90 type-IVSS, 46 type-V, 6 type VI & 01 GM Bungalow/Camp office).
- 1.3 Various service buildings in workshop and township, availability of full-fledged hospital, separate rest houses and clubs for workers, supervisors and officers, welfare centre, Nursery & KV School, Shopping complex, technical trainee & sport hostel. Entire indoor & outdoor sport facility, 3 MW solar power plant, a green environment and 60 hectare area Eco-Park with 7 large ponds.
- 1.4 Cost of entire civil engineering assets of MCF is approximately Rs.1544Crore. Now Workshop is being augmented from production capacity 1000 coaches per year to 2000 coaches per year.
- 1.5 Dense forestation of Maintenance unit 1,20,000& construction unit 51000trees has been done in township side in consultation with Forest Department UP. Including this total plantation done so far in MCF is 1,81,200trees. Nature of soil in MCF is alkali (Usar). Efforts are being made to cover entire area of campus with plantation/greenery and maintain it suitably.
- 1.6 Green Co. Platinum certificate has been obtained for the workshop. Main emphasis is given on conservation of natural resources and to provide green & eco friendly environment. Entire sewage of workshop and township is being treated in STPs (capacity 1.1MLD + 0.4 MLD in township and 1.1 MLD in workshop). Entire treated water is being used in irrigation of greenery/ Parks.
- 1.7 Assets are being maintained regularly on planned manner with minimum departmental labour. General sanitation & horticulture activities are being outsourced along with other civil engineering maintenance works & special sanctioned works. Efforts of Civil Engg. Deptt. are to maintain assets regularly in due time with economical methods. All efforts are being made to maintain pollution free and pleasant environment in this Production Unit of Indian Railways.
- 1.8 Pre-fabricated structure with double layered roof sheeting has been used in various sheds of workshop. Large window openings with adjustable louvers have been provided to reduce the effect of heat in summer in most workshop structures, Sky lights have been provided in roofs to facilitate day light and conserve electricity.

2.0 Organisation setup-

- 2.1 Civil Engineering Department is headed by Principal Chief Engineer, who is assisted by 3 Dy. CE, &3AXENs.

Detail of sanction/on roll staff in engineering department is as under :-

Category		Sanc. Strength	On Roll	Vacancies
Officers Civil Engg.		09	07	02
Group 'C'	Supervisor	17	13	04
	Ministerial	13	07	06
	Artisan	33	24	09
Group 'D' (Helper)		20	19	01
Total		92	70	22

There are 10 SSE/JE/W to maintain building & structures and maintain rail connectivity network along with handling of special sanctioned and project works.

3.0 Main features

3.1 Water Supply

There are 4 tube wells in colony and 2 tube wells in workshop each with pumping unit. Requirement of water supply in colony as well as in workshop is met with through 200mm dia, deep tube-wells (320m to 360m) having enough yield. Water from the tube wells is pumped to over head tanks. Total capacity of available 7 over head tanks is 2925KL. Individual capacity and location of these over head tanks is as under.

OHT No.	Location	Capacity (KL)	Staging
OHT 1	Near type-II Colony in township	600	22 m high
OHT 2	Near type-V Colony in township	300	22 m high
OHT 3	Near type-IVDS Colony in township	450	22 m high
OHT 4	Near Gate No. 2 of Workshop	225	22 m high
OHT 5	Near MRS of Workshop	450	22 m high
OTT 6	Near new Type -II	450	22 m high
OHT7	Near East Colony office	450	22 m high

Total length of main water pipe line in township is 35.8 km and in workshop is 16.00 km.

Average daily requirement of water is about 3050 KLD (2000 KLD for Township and 1050 KLD for Workshop). Every effort are being made to reduce consumption of ground water by providing push cock type taps at public places and prevent leakages from roof top tanks. This demand will further reduced drastically after commissioning of distribution network of treated effluent for irrigation of lawns/greeneries in workshop and parks, service buildings, playgrounds and Type-IV & V quarters in township.

3.2 Rain Water Harvesting

Water requirement of MCF is met through ground water. To prevent depletion of ground water table of the area with the passage of time, an exhaustive plan of 25 number RWH (14 Nos. in Township and 11 nos. in Workshop) with annual recharge capacity 364 ML which is more than statutory requirement of 25% of extract quantity. Now additional rain water harvesting 1 in township & 7Nos in factory is planned to enhance the recharge capacity up to 36% of water extracted from ground.

3.3 Fire Fighting Arrangements

Sufficient fire hydrants at strategic points in the workshop, administrative building and public places like auditorium and school have been installed to meet emergency requirement. 1 static ground water tanks of capacity 900KL and 02 elevated tank of total capacity 332KL has been provided.

3.4 Sewerage System

Sewerage system is separate from storm water drains. The sewage is carried to sewage treatment plants (STP) 1.1 MLD near type-II colony, 0.4 MLD near type-IVDS colony and 1.1 MLD in workshop. These STPs are working on SBR technology. The details of sewers are as under.

SN	Description	Length(meter)	
		Workshop	Township
1	SW 200mm dia	4537	7725
2	SW 250mm dia	2011	2410
3	SW 300mm dia	-	888
4	RCC pipes 300mm dia	-	904
5	RCC pipes 350mm dia	465	1185
6	RCC pipes 400mm dia	696	-
7	RCC pipes 450mm dia	210	1907
8	RCC pipes 500mm dia	-	1588
9	RCC pipes 600mm dia	-	2322
10	RCC pipes 600mm pipe NP2	-	50
11	RCC pipe 800 mm Pipe	-	3370
12	RCC pipes 900mm dia	-	2182
13	RCC pipes 1200mm dia	-	609
Total		7919	25140

3.5 Storm water drains-

Entire MCF complex has a well planned open drainage and covered drainage system network which is ultimately discharge into natural drain (MathanaNala) available in campus. Drainages are planned along both sides of main roads. To ensure proper functioning of storm water drains cleaning of drains before on set monsoon is being ensured. Detail of storm water drainage is as under;

SN	Description	Length(Meter)	
		Workshop	Township
1	RCC covered drain	9015	5000
2	RCC open drain	7076	16800
3	Brick drain (open)	-	9000
Total		16091	30800

3.6 Service roads-

There is well planned service road network. Details of road is as under

SN	Description of Road	Area(Sqm)	
		Workshop	Township
1	CC Road	82785	53200
2	Bituminous Road	11123	1,89,557

3.6 Other features of Civil Engineering Department of MCF are as under :-

(i) Land

Private land	283 Hectare
Govt land	189 Hectare
Gram Sabha land	68 Hectare
Total	540 Hectare
Book Value	60 Crore (Approx.)

(ii) Boundary Wall (km)

Township	10.78 Km
Workshop	7.00 Km
Total	17.78 Km.

Entire premises of MCF/RBL are enclosed with gap less boundary.

(a) Fencing/boundary wall of assets

Location	Brick walled	Fabricated concrete panel	Expansion metal/chain link fencing	Total length (Meter)
Township	14013	1107	30555	45675
Workshop	3457m	1400	0	4857
Total	17470	2507	30555	50532

3.7 Residential Accommodation

Type	No. of quarters
II	1124
III	760
IVDS	232
IVSS	90
V	46
VI	6
GM Bungalow	1
Total	2259

3.9 Workshop Structures (sqm)

(i)	Covered area	=	337067
(ii)	Un-covered area	=	152943

3.10 Other Structures (sqm)

(i)	Service Buildings	=	9158
(ii)	Anc. Build. in Workshop	=	8600

3.11 Welfare Buildings (sqm)

(i)	Township	=	17560
(ii)	Workshop	=	3850

3.12 Track

Description	Length(Km)
Ballasted Track	10.749
Embedded Track	23.586
Points & crossing	27Nos

4.0 Expenditure during financial year 2023-24

(Rs. inTh)

SN	Plan head	Allocation	Expenditure
1	4200	Cap	1297000
2	4100	Cap	7700
3	7200	WMS	374900
Total			1679600

5.0 Major Achievement of the year 2023-24

- New Finishing shop (96 M X 60M) Completed within time.
- New Store shed (72 M X 51M) completed within time.
- New Store shed (104 M X 40M) completed within time
- New furnishing shop (360M X 60 M) completed within time.
- Shell shop (246MX80M) completed within time.
- Paint shop (105Mx105M) completed and balance work is in progress.
- Construction of Type-III D/S 120 Unit type-III D/S has been constructed and allotted to staff.
- Construction of two wheeler parking shed -500 spm Parking shed has been constructed.
- Construction of Flooring for Store Yard- 9500 sqm concrete flooring has been constructed in New store yard area & near MathanaNala for stacking of coach material..
- Plantation- 1,
- 1,71,000 nos. plant has been planted in Township & Workshop area.
- Construction of additional Embedded/Ballasted track in workshop-1400 Track meter embedded/ballasted track constructed for stabling of coaches & smooth shunting of coaches.
- Construction of RCC O.H.Tank-90% completed and balance work is in progress.
- One OHT commissioned.
- Forged wheel plant of RINL has been taken over by MCF on 31.03.2024 .

PERSONNEL DEPARTMENT

1. Over all Cadre position of MCF/RBL as on 01.04.2024

S. No.	Category	Revenue	W/C	Total	On roll	Vacancy
1	Gazette d	158	00	158	133	25
2	Supervisors	428	00	428	383	45
3	Artisan	1561	00	1561	1302	259
4	Ministerial	238	00	238	197	41
5	Others (A/C, RPF, Med. G. Branch)	149	15	164	138	26
6	Group-D	306	00	306	172	134
Total		2840	15	2855	2325	530

* 15 work charged post of account departments.

a) Cadre of Gazetted Officers:-

The staff strength of Gazetted cadre during the year 2023-24 is given below:-

S. No.	Category	Rev.	W/C	Total	On roll	Vacancy
1	HAG+	01	--	01	01	00
2	HAG	06	--	06	05	01
3	SAG	21	--	21	17	04
4	SG/JAG	39	--	39	41	-02
5	SS	32	--	32	23	09
6	JS/Group -B	59	--	59	46	13
Total		158	--	158	133	25

b) Cadre of Non-Gazetted Staff:-

The staff strength of Non-Gazetted cadre after upgradation of Sr. Supervisors and surrender of Level-1 posts during the year 2023-24 (as on 01.04.2024) is given below:-

S. No.	Category	Rev.	W/C	Total	On roll	Vacancy
1	Supervisors	428	00	428	383	45
2	Artisan	1561	00	1561	1302	259
3	Ministerial	238	00	238	197	41
4	Others (A/c, security, Gen. Admn, Med.)	149	15	164	138	26
5	Group-D	306	00	306	172	134
Total		2682	15	2697	2192	505

d) Surrendered of post during the year 2023-24.

S.N.	Deptt.	Designation	No. of surrendered post	Remarks
01.	Personnel	Genl. Asst.	06	Target given by Railway Board for 82 Posts.
03.	IT	Asst./IT	01	
04.	Electrical	Asst./Electrical	06	

05.	Stores	Asst./ Depot	03	
06.	Mech.	Asst./ Workshop	29	
Total			45	

2. Work Charged Non-Gazetted Posts:-

The details of work charged non-gazetted posts operated during FY 2023-24 are as under:-

S.No.	Deptt.	No. of Posts	Period of Currency	
			From	To
1.	Others (Accounts)	15	01.07.2023	30.06.2024
Total		15		

3. Indent Position (Additional/Replacement):- The detail of Indents placed and panel received during the year 2023-24 are as under:

Category	Indent placed	Panel received	Balance	Remarks
Supervisors	37	10	27	
Artisan	118	24	94	
Para - Medical	03	--	03	
Total	158	34	124	

4. APPOINTMENT IN GROUP C & D AGAINST VARIOUS QUOTAS:-

The detail of appointments on various quotas during the year 2023-24 is as under:

S.No.	Category	Year 2023 -24
1	Compassionate Ground	03
2	Sports Quota	04
3	Ex-Serviceman Quota	-
4	Physical Handicapped Quota	-
5	Crash Programme for wiping out shortfall of SC/ST	-
6	Casual Labour absorbed	-
7	No. of Staff Recruited Scout/Cultural Quota	02
8	Sub. B/Kh.	-
Total		09

5. Settlement Dues:-Total no. of cases in which payment of settlement dues has been made during the year 2023-24.

S. No.	Nature of Settlement	No. of Cases received	No. of Cases Settled	Balance Cases
1	Superannuation	18	17	01*
2	Voluntary Retirement	01	01	00
3	Compulsory Retired	00	00	00
4	Resignation	00	00	00
5	Removal, Dismissal & Others	00	00	00
6	Medical Unfit Cases	00	00	00
7	Death Cases	06	02	04#
Total		25	20	05

* 01 pending due to DAR/Vig.

03-DCRG withhod due to non vacation of railway accommodation.

01- Settlement form not received.

6. PROMOTIONS:-

During the year 26 no. of selections, suitability & Trade Test were conducted. 251 Non-Gazetted employees of various categories have been promoted Besides, this all MACP cases due during the financial year have been finalized.

S. No.	Category	Number of staff promoted this year.
1	Gazetted	11
2	Supervisor	64
3	Ministerial	03
4	Artisan	173
5.	Group "D" to "C"	09
6.	Paramedical	02
Total		262

7. Recruitment:-

80 candidates have been recruited in the following categories during the period of 2023-24.

S. No.	Category	Recruited
1	Supervisors	--
2	Ministerial	10
3	Technicians	15
4	Paramedical	--
5	Group-D/TADK	55
Total		80

8. BONUS:-

In the years 2023-24 Group-C&D staff of MCF/RBL has been Paid productivity linked Bonus detail of which is given below:-

No. of Employees 2023-24	Productivity Linked Bonus (In Cr.)
2066	3.69 Cr.

9. Salary Payment during 2023-24:-

Type of staff	Amount Paid
Gazetted	27.89 Cr.
Non-Gazetted	177.58 Cr.
Total	205.47 Cr.

10. Disbursement of Advances for the year 2023-24:-

Following advances on various accounts had been disbursed during the year 2023-24:

HEADS	FUND ALLOTTED	FUND PAID	FUND BAL.	No. of Staff	Remark
HBA	Nil	Nil	Nil	Nil	Nil
M.CAR	Nil	Nil	Nil	Nil	Nil
M.CYCLE/ SCOOTER	Nil	Nil	Nil	Nil	Nil
COMPUTER	700000	700000	0	14	Including Acs. Dept.
CYCLE	Nil	Nil	Nil	Nil	Nil
TOTAL	700000	700000	0	14	

11. Online Portals being operated at MCF/RBL:-

- CPGRAMS: Total 126 Grievances Disposed during the FY-2023-24.

12. A. MCF celebrated Ambedkar Jayanti on 15.04.2023 in Seminar Hall at Admin Building. During the celebration, Officers, Staff and the Staff representatives were present and paid tribute to Dr. Bhimrao Ambedkar.



- D. Organized Little Champ Dance Competition-Season 01 at Saraswati Auditorium of MCF.



- E.(i) Quiz Competition on Hindi Literature: A Quiz Competition on Hindi Literature was organized for employees of Modern Coach Factory, Raebareli. The quiz was conducted in three rounds which were thoughtfully crafted covering a wide range of topics including poetry, novels and short story; poets and writers, idioms and phrases, origin of words, etc. The quiz received high participation with 47 employees from diverse background.



(i) Swachhta Pakhwada:

- a. To create awareness among employees and their family members about importance of Swachhta, a NukkadNatak was organized by Scouts&Guides at the Shopping Complex of PrashantiPrisar, Modern Coach Factory, Raebareli.



- b. Further, an online photography competition was organised wherein employees were asked to send photos of places that needed attention for cleanliness.
- c. A Swachhta quiz was organised during the Swachhta Pakhwada; wherein 42 employees participated.



- d. The employees of Personnel Branch performed a NukkadNatak at Administrative Building to create awareness among employees about Swachhta at workplace.



Swachhta Pakhwada Pledge & Shram Dan Abhiyan was organized on 01.10.2023 at the Shopping Complex of Prasanti Prisar, Modern Coach Factory, Raebareli.



Gandhi Jayanti was celebrated on 02.10.2023 at Modern Coach Factory, Raebareli.



Rashtriya Ekta Pledge was administered by General Manager/MCF/RBL on 31.10.2023. Pledge was also taken by officers and staff at the Shopping Complex /MCF/RBL.



Run for Unity was organized at the Shopping Complex of MCF/RBL on 31.10.2023. All the officers, staff and their families participated in the event.



Essay Writing and Quiz Competition was Organized On the occasion of Janjatiya Gaurav Diwas-2023 at MCF/RBL and short documentary films "Dharti Aba Bhagwan Birsa Munda" plays on all television at MCF/RBL.



- A. Pension Adalat was organized in MCF/RBL on 15.12.2023 at Conference Hall of Personnel Department wherein Dy. CPO, APO/Staff, CWLI and Ch.OS/Cord., dealing with the settlement dues were present. The Adalat was chaired by PCPO/MCF.



- B. A Meditation Seminar was organized by the Prajapita Brahmakumaris on 22.12.2023 at Workers Club MCF/RBL for Staff and their family members. This event was organised for the first time in line of Positive Talks series being held at MCF, Raebareli.



C. A Special Camp was organized on 28.12.2023 in presence of Personnel and Workshop officers to solve the problems of the employees working in the Shell Shop Office.



Cultural drama and magic show was organized on 12.01.2024 at MCF Saraswati Auditorium.



B. GM with All PHOD's take pledge on National Voters' Day 25 January-2024 at Conference Room. All the staff along with their controlling officers took the pledge at their working places.



Accounts

1.0 PROJECT

The project estimate was originally sanctioned under Capital 4200 (Raebareli-setting up of new Modern Coach Factory) at the cost of Rs. 2556.84 crore which has been revised to Rs 3192.00 crore vide letter no. 2016/M(W)/964/3 dated 21/05/2016

The Total expenditure under final heads for fixed assets and M&P is Rs. 4423.14/- crore upto March, 2024. This includes expenditure incurred on project cost of MCF (Capital) 4200 and machinery & plant (Cap-4100).

The Closing balance of floating assets (Inventories Cap-7100, Cap-7200 and Cap-7300) is Rs. 488.30/-Crore. The break-up of fixed and floating assets is as under:

1.2 Total Assets as on 31st March 2024:-

(Figs in crore)

Assets		Value
I	Fixed Assets	
a)	Project (Land)	51.87
b)	Project Township (Structural Engineering Works)	1720.00
c)	W/s & Offices	2651.27
Total Fixed Assets (a+b+c)		4423.14
II	Floating Asset	
a)	Stores Suspense	88.08
b)	W/s Mfg. Suspense	471.85
c)	Misc Adv. Cap	-71.63
Total Floating Assets		488.30
Total Assets (Fixed + Floating)		4911.44

2.0 STATEMENT SHOWING DEPRECIATION RESERVE FUND ACCOUNT FOR AND TO END OF THE YEAR 2023-24.

(fig. in units of Rs.)

S.No.	PARTICULARS	AMOUNT
1.	Opening balance	34,56,95,000
2.	TWFA	NIL
3.	BALANCE AS ON 01.04.2023 (Item 1+2)	34,56,95,000
4.	Appropriation to funds during the year 2023 -24	34,00,00,000
5.	Payment from fund during the year 2023 -24	NIL
6.	Net accretion to the fund (Item 4 -5)	34,00,00,000
7.	Half of the outlay during the year	17,00,00,000
8.	Total amount on which interest is to be worked out for 2023-2024 (Item 3+7)	51,56,95,000
9.	Interest @ 3.35% on item no. 8	1,72,75,782.5
10	Arrear adjustment, if any	NIL
11	Net balance as on 31.03.2024 (Item 3+6+9+10)	70,29,70,782.5

3.0 STATEMENT SHOWING PENSION FUND ACCOUNT FOR AND TO END OF THE YEAR 2023-24.

S. No	Particulars	Amount
1	Balance as on 01.04.2023	-6,37,40,664
2	Appropriation during the year (2023 -24)	12,00,00,000
3	Withdrawal from pension fund During the year	9,93,84,535
4	Net Accretion During the year (2 -3)	2,06,15,465
5	Half of the Net Accretion	1,03,07,733
6	Amount on which interest is calculated (1+5)	-5,34,32,932
7	Interest on Fund Balance @3.35% of (6)	-17,90,003
8	Closing Balance as on 31.03.2024 (1+4+7)	-4,49,15,202

It is certified that the Grant totals have been reconciled with the figures in the Account Current to end of March 2024.

4. MANUFACTURING SUSPENSE ACCOUNT FOR THE YEAR 2023-24

Fig. in units

PARTICULARS	1st April 2023 to 31st March 2024	PARTICULARS	1st April 2023 to 31st March 2024
	AMOUNT		AMOUNT
(1) WORK IN PROGRESS AS ON 01-04-2023	896714666	(1)TRANSFER TO RLY.	
TOTAL (A)	896714666	(i) SUPPLY OF COACHES	35024630628
B-(1) LABOUR		(ii) MISC. SUPLPLIES	0
(1) WORK SHOP DIRECT LABOUR	394049690	(2). BY CAPITAL STORE	0
(2) INDIRECT LABOUR	682630263	(i) MANUFACTURING	0
(3) SALARY AND ALLOWANCES OF ADM	651855093	(ii) RETURNED STORE	0
(4) WORKS CONTRACT	786584659	(3) BY CAPITAL WORK DONE PLANT AND MACHINERY & OTHER WORKS	0
(5) SALARY AND ALLOWANCES OF STORE	114670326	(4) BY WORK DONE ON DEPOSIT ACCOUNT	0

(6) SALARY AND ALLOWANCES OF TOWNSHIP	46209516	TOTAL CREDIT	35024630628
TOTAL LABOUR	2675999547	(5) BY EXPORT	
C-(2) STORES		(6) BY CLOSING BALANCE (WORK IN PROGRESS AS ON 31-03-2023)	4800105469
(1) STORE DIRECT FROM STOCK	33842421637		
(2) STORE DIRECT FROM DDO	2368945414		
(3) ADJUSTMENT			
(4) INDIRECT STORE (FOH)	0		
(5) FOH DDO	346040633		
(6) FOH ADJUSTMENT	-124645		
(7) INDIRECT STORE (AOH)	0		
(8) AOH DDO	302100837		
(9) AOH ADJUSTMENT	15262243		
(10) INDIRECT STORE (SOH)	0		
(11) SOH DDO	144482429		
(12) SOH ADJUSTMENT	-1107		
(13) INDIRECT STORE (TOH)	0		
(14) TOH DDO	257862502		
(15) TOH ADJUSTMENT	-44747		
(16) RETURNED STORE	-369924868		
(17) MISC.ADJ. (TR) DR/CR FROM TO OTHER RLY.	-951415257		
TOTAL STORES	35955605071		
(1) OTHER CHARGES	-189000000		
(2) APPRO. TO PENSION FUND	120000000		
(3) APPRO. TO DRF	340000000		
(4) APPRO. TO SBF.	-4406976		
(5) ELECTRICITY (POWER)	76371113		
(6) STOCK ADJUSTMENT	0		

(7) FRIEGHT INDIRECT	5611677		
(8) MISC. INDIRECT	0		
TOTAL OTHER CHARGES	348575814		
(1) RECEIPT ON RENT AND WATER	-52159002		
(2) RECEIPT ON ELECTRICITY	0		
TOTAL RECOVERIES	-52159002		
TOTAL (B)	38928021430		
GRAND TOTAL (A+B)	39824736097	GRAND TOTAL	39824736097

It is certified that the grant totals have been reconciled with the figures in the Account Current to end of March 2024.

ACHIEVEMENT

1. Total saving for Rs 20.44 Cr during internal scrutiny of financial proposal for this financial year.
2. 16 cases have been closed out of 26 Sales tax cases.
3. E-office is being completely implemented in A/c department since last year 2022-23.
4. Average time taken in passing of vendor's bill by MCF/RBL is one of the least in comparison with other PUs .

STORE DEPARTMENT

STATEMENT NO. 38-B

Total Value of stores purchased during 2023-24 PROFORMA-I

(Rs. IN Crores)

Sr. No.	Item	Value
A	Imported Direct	2.40
B	Imported Stores Purchased in India	Nil
C	Stores Purchased from PSUs	Nil
D	Khadi Purchase	0
E	Stores purchased from Cottage & SSI units	1647.09
F	Other indigenous	2145.61
	Total	3795.10

Total Value of stores purchased during 2023-24

PROFORMA-II

(Rs. IN Crores)

Sr. No.	Item	Value
A	Stores for operation/repair & maintenance	0
B	Stores for construction	0
C	Fuel	0
D	Components/Stores purchased for manufacture of complete rolling Stock and complete units of Rolling Stock.	3795.10
	Total	3795.10

Total Value of stores purchased during 2023-24

PROFORMA-III

(Rs. IN crores)

Sr. No.	Item	Value
A	Through Gem	38.75
B	Through Railway Board	305.62
C	Direct Purchased made by Railway/PU	3450.73
	Total	3795.10

Stores Transaction during the year 2023-24

(Rs. In Thousand)

Description	Opening balance (at the beginning of the year 2023-24)	Receipts during the year 2023-24)	Issues during the year 2023-24)	Closing balance (at the end of the year 2023-24)
Stream loco parts and fittings	0	0	0	0
Diesel loco parts and fittings	0	0	0	0
Electric loco parts and fittings	0	0	0	0

Carriage, wagon, EMU parts and fittings	3921431	36990503	34699692	6212241
Electric stores	19304	254721	212773	61251
Signal and Tele-com stores	0	0	0	0
P.Way material, track, tools etc.	0	0	0	0
Engg. Stores covering bldg. Material etc	8308	12219	9712	10815
Abrasive tools,hardware etc,	36338	73275	43189	66424
Brushes, brushware etc.	160	128	145	142
India rubber, leather canvas etc.	32002	83257	76574	38685
Electordes & welding accessories	16955	131735	119772	28919
Paints,enamels & varnishes	24950	8785	18078	15656
Crockery, cutlery & napery	80	140	126	94
Cloth,clothing & personal equipment.	6997	3349	7608	2739
Petroleum products other than fuel oil	1942	5247	6119	1070
Refractories, packing material etc.	475	4138	3219	1394
Ball & roller bearings	0	0	0	0
Genl. Stores covering acids, chemicals etc.	6137	93234	93587	5784
Staionery forms etc.	2166	5466	4418	3214
Metal ferrous	25219	122813	126118	21914
Metal non-ferrous	115	0	0	115
Fuel-coke, coal etc.	0	0	0	0
Fuel-oil	0	28325	28325	0
Timber	17155	9698	9531	17322
Scrap	50854	124006	123441	51419
Rolling Stock complete units 7 stores	0	0	0	0
Total	4170588	37951039	35582427	6539200
Adjustments	0	0	0	0
Grand total as per App. Account	4170588	37951039	35582427	6539200

Medical Department

MCF hospital provides OPD and 24 hrs. emergency services to railway beneficiaries with OPD doctors including Dermatologist, Pediatrician, Part Time Dental Surgeon, Dietician, Physiotherapist with advance Physiotherapy unit.

Sanctioned strength of IRHS Doctors in MCF/RBL Hospital is 13 but only 07 regular Doctors (Including PCMO) were posted.

Daily average O.P.D. treatment is 250 at MCF/RBL hospital. Total 77368 patients were treated in 2023-24 in which 523 patients treated in IPD and 76845 patients treated in OPD.

Medicines which are required for the treatment of day to day illness & Chronic diseases (HTN, DM, CKD etc) were available in the hospital. Those medicines which are not available were purchased through local purchase.

MCF hospital is fully equipped with fully automated Pathology and Radiology machines.

MCF hospital arranges for safe and comfortable transport to railway patients requiring specialist care through 12 empanelled hospitals (List Enclosed).

MCF hospital is remotly located, so it provides 24 x 7 ambulance services to railway beneficiaries through 2 ALS (Advance Life Support) and 2 BLS (Basic Life Support) ambulance. ALS ambulance is equipped with ventilator, multipoint cardiac monitor, defibrillator, syringe pump, life saving drugs etc through which railways provides safe and comfortable transportation to the patients.

AIIMS, Raebareli was being empanelled for the benefit of MCF beneficiaries.

02 Blood Donation Camps were organised in MCF Raebareli hospital on 14.04.2023 in which 34 employees donated Blood & on 15.08.2023 in which 37 employees donated the blood.

MCF Hospital has installed App based Android/IOS HMIS system which is interactive, inclusive, participative & informative for MCF beneficiaries. Due to which employee receive Lab report through Mobile. Online OPD registration, Dispencery etc. were woking properly.

List of Empanelled hospital :-

SN	Name of Hospital	Address & contact No. of Hospital	Specialities for which hospital has been empanelled
1.	Ajanta Hospital Lucknow	Kanpur Road, Alambagh Lucknow- 226005, Contact No- 0522-4032888, 2462335	Multispecialty
2.	Chandan Hospital Lucknow	Faizabad Road, Near Chinhath Flyover, Vijayant Khand Gomti Nagar Lucknow 226010, Copntact No.- 0522-6666666	Multispecialty
3.	Charak Hospital & Research Centre LKO	Dubagga Hardoi Road Lucknow, Contact No- 0522-2254444, 9919040000, 7704007110	Multispecialty

4.	Dr. O.P.Chaudhery Hospital Lucknow	"Chaudhary Vihar" Sardar Patel Chowk, Raebareli Road, Lucknow-226029, Contact No.- 89600595757, 9517164164	Multispecialty
5	K K Hospital Lucknow	87/88 Nabibullah Road, River Bank Colony Near Suraj Kund Park, Lucknow-226008, Contact No.- 0522-2619049, 2619050	Multispecialty
6	Medanta Hospital Gurugram	Sector-38 Gurugram Hariyana – 122001, Contact No- 0124- 4141414	Multispecialty
7	Mayo Hospital Lucknow	Vikash Khand-II Gomti Nagawr, Lucknow-226010, Contact No.: -0522-2398614, 2398615, 2302269, 2302270	Multispecialty
8	Tender Palm Hospital Lucknow	Gomti Nagar Extension, Shaheed Path, Lucknow-226002, Contact No.-0522-3500111, Wtsup No. - 9076972161	Multispecialty
9	Chandra Mother Eye Care centre	4/43 Vivek Khand, Opp. Central School, Gomti Nagar, Lucknow, Contact No. 0522-4933333, 2397677, 2397757	Eye Speciality
10	Sun Eye Hospital Lucknow	2D/NH 01, Vrindavan II, Raebareli Road, Lucknow	Eye Speciality
11	Charakdhar Diagnostic Pvt.Ltd Lucknow	292/05, Tulsidas marg Basement Chowk, Lucknow-226003 Contact No.: -0522-4062223, 930554827	Diagnostic centre
12	Nidan Diagnostic Lucknow	4/31 Vivek khand thana(mnoj pandey chauraha) Gomtinagar Lucknow Contact No.: -4016832, 2393390	Diagnostic centre

1. Emergency/IPD Ward:

17 beded fully operated Emergency ward with Patient table, Crash Cart Trolley with all Drugs ECG machine, 5 Para monitor, Defibrillator, Suction Machine, Oxygen & CPR.



2. Minor OT:



3. Radiology Wing:

500mA Allenger X-ray Machine



4. Pathology Wing:

Automated Chemistry Analyser Machine



Automated Haematology Machine



5. Ambulance Service :

ALS



BLS



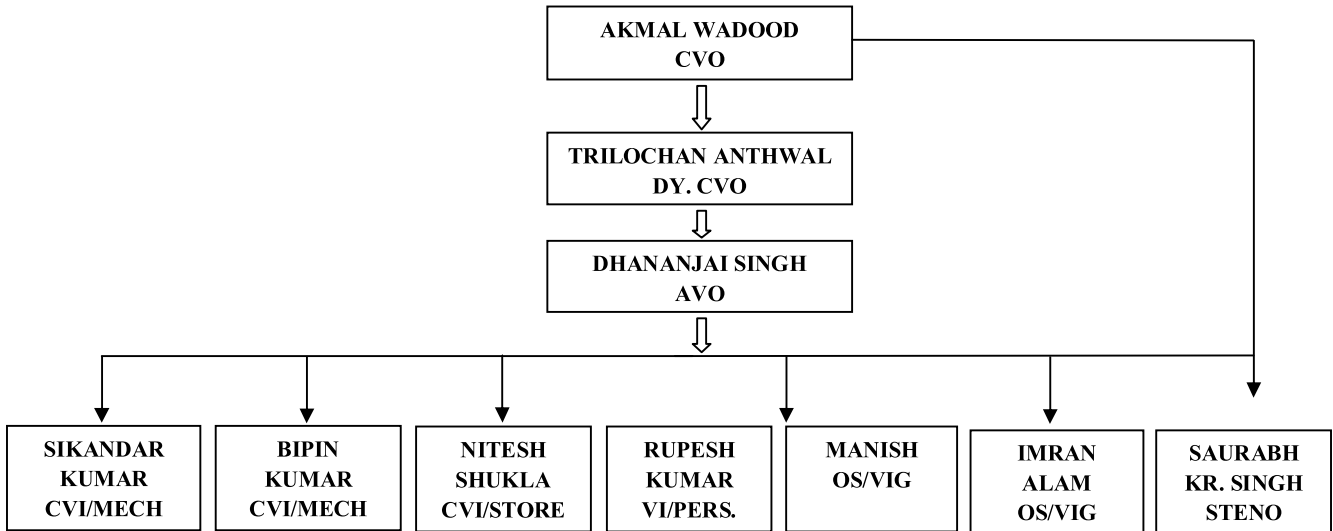
6. Blood donation camp :-



आधुनिक रेल डिब्बा कारखाना रायबरेली
MODERN COACH FACTORY, RAEBARELI
 सर्तकता विभाग



Organisation chart of Vigilance Department.



★ **Summary of Cases:-**

- In year 2023-24, 69 Railway Board referred complaints, 89 other (Direct/Other Railway referred) complaints & 38 PIDPI complaint have been received.

★ **Achievement:-**

- During the year 2023-24, 196 vigilance complaints have been received including 69 Railway Board referred complaints, 89 others (Direct/Other Railway referred) complaints & 38 PIDPI complaint. Out of 196 vigilance complaints, 145 complaints have been closed.
- During the year 2023-24, 08 System Improvements have been issued for transparent working.
- The Vigilance Awareness week, 2023 was observed at Modern Coach Factory, Raebareli from 31.10.2023 to 05.11.2023 as per directives issued by Railway Board. The main theme of this year's Vigilance Awareness Week was "Say no to corruption; Commit to the Nation; "भष्टाचार का विरोध करें, राष्ट्र के प्रति समर्पित रहें". Various activities conducted during this week viz. Vigilance pledge in administrative building & workshops premises, pamphlets, posters and hoarding exhibiting anti-corruption themes were distributed and displayed at prominent places in admin building, workshop and township premises. Webinar on policies/procedures of the organisation and preventive vigilance measures, Works Contract/Works on Quotation/Execution of turnkey contract, Stores Contract for officers, employees and other stake holders and customer/vendor, customer/Vendor grievance redressal camp & E-meet were organised. Essay writing competition on the topic "Say no to corruption; Commit to the Nation; "भष्टाचार का विरोध करें, राष्ट्र के प्रति समर्पित रहें" was organised at Ganesh Inter College, Aihar in which 70 students have





RAILWAY PROTECTION FORCE MODERN COACH FACTORY, RAEBARELI



SECURITY BRANCH

Railway Protection Force has assumed the security of Railway Property of the Modern Coach Factory, Raebareli since 15th February 2011. Railway Protection Force (RPF) is an Armed Force of the Union. To protect the Railway property of the Modern Coach Factory, Raebareli, the strength of 64 security personnel of the Railway Protection Force has been sanctioned.

In MCF, RPF has a set up of Executive Branch and Crime Intelligence Branch & Special Intelligence Unit. A 24X7 Security Control Room has also been operationalised. All these Units work under the control and command of Pr. Chief Security Commissioner/RPF, Modern Coach Factory, Raebareli.

RPF Strength

The General tenure of Non-Gazetted RPF Personnel at MCF is 3-5 years. The Periodical Transfer of RPF staff is carried out by the PCSC/RPF/NR. The Members of the Force are regularly trained to update their Soft & Hard Skills. The Present Strength for the year 2023-24 of

the RPF Personnel is as under:

Description	PCSC	SC	ASC	IPF	SI	ASI	HC	Const	Total
Sanction Strength	01	01	01	02	08	09	11	31	64
Present Strength	01	-	01	02	04	07	06	34	55
Vacancy	-	01	-	-	04	02	05	+03	09

PRIVATE SECURITY

The Railway Protection Force is being assisted by Uttar Pradesh Purva Sainik Kalyan Nigam Limited (UP Government Undertaking) who had been awarded a Contract for a Period of 24 months from the date of actual commencement of the work (from 01.12.2022 to 30.11.2024) for Guarding the Railway Property in the identified Non-Core Areas, having a strength of 135 Security Guards.

After Business transfer agreement execution between RINL and Ministry of Railways through MCF/RBL on 21/03/24, the security contract (for the work of providing security guards with and without arms and supervisors at premises of FWP) of M/s Prateek Sahai Security Agency(Sector-53, Gautam Budh Nagar-201301) having strength of 37 security guards is handed over by Forged Wheel Plant-RINL and taken over by RPF.



CRIME CONTROL

During the year 2023-24, the RPF unit of MCF was able to successfully implement the Zero Tolerance Policy towards the criminal activities. Under RP(UP) Act 03 cases of theft of Railway Property has been registered at RPF/Post and in all such cases complete recovery of stolen Railway Property value Rs. 9600/- with the arrest of 04 accused was done by RPF. 40 cases of Railway Act were registered with the fine of Rs. 30500/-. These results were achieved by round the clock surveillance of the MCF premises and the identified vulnerable areas through 24 X 7 patrolling, Strict Access Control at all Entry/Exit Gates.



ARMS & AMMUNITIONS:

This RPF unit is equipped with latest Weapons. The details of which are as under:-

S. N.	Arms	Quantity	Ammunitions	Spare Magazine	Bayonet
1.	Rifle 7.62 mm{SLR} IAI	04 Nos.	1499Nos.	16 Nos.	--
2.	ARM 7.62x39mm ARM	05 Nos.	650 Nos.	20 Nos.	05 Nos.
3.	Rifle 5.56mm{INSAS} fold Butt 2A	08 Nos.	1670 Nos.	40 Nos.	04 Nos.
4.	Pistol Auto 9mm with Magazine	22 Nos.	2415Nos.	44 Nos.	--
5.	Carbine Machine Gun 9mm IA. IAI	08 Nos.		24 Nos.	--
Total =		47 Nos.	6234Nos.	144 Nos.	09 Nos.



MODERNISATION

To strengthen the working of RPF, the following latest Security Gadgets were procured and staff is trained to use these equipments/gadgets. The procurement of binocular devices is under process. The details of the security items available are as under:

Name of the Security Item	Quantity
Baggage Scanner	01 Nos.
Bullet Proof Jacket	04 Nos.
Bullet Proof Helmet	10 Nos.
Polycarbonate Shield	20 Nos.
Polycarbonate Lathi	75 Nos.
Sony Camera	02 Nos.
Dragon Search Light	05 Nos.
HHMD	15 Nos.
DFMD	02 Nos.
Drone Camera (UAV)	02 Nos.
Walkie -Talkie	25 Nos.
VHF sets	04 Nos.

Plantation

For environmental sustainability, RPF/ MCF have planted around 3000/- saplings in areas of RPF Barrack, Central Park, Type-IV and Type-V Quarters, which are regularly monitored, maintained and irrigated by RPF.



ACCESS CONTROL

- Electronic Gate Pass System has been implemented to make the entry/exit process at Factory Gate and Township Gate contactless through Proximity Cards. This system has the following features:-
 - This system is integrated with Electronic PVC Cards and RFID based identification system at entry/exit gates.
 - This system is also useful in improving punctuality and discipline during duty hours of



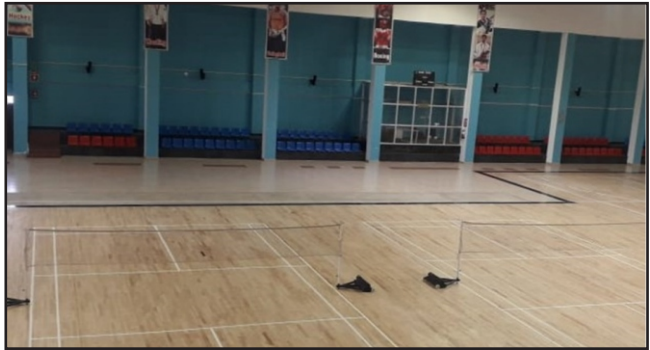

contract workers employed in Factory and Prashanti premises.

- For security of MCF premises, CCTV Control Room has been established at RPF post, which is monitored 24X7 by RPF staff.
 - 05 Numbers of Automatic Boom Barriers have been installed at the entry/exit of Factory gate and township gate for regulating traffic.
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Sports Department

01. Sports Facilities in Modern Coach Factory, Raebareli

(a) Indoor Sports Facilities

S.No.	Facilities	Pics
01	<p>Squish Court/Hall</p> <p>Basketball (Indoor)</p> <p>Aerobics Hall</p> <p>Table Tennis</p> <p>Taekwondo</p> <p>One Kabaddi Mat</p> <p>One Multi games Mat</p> <p>One Boxing Ring</p> <p>GYM (Men)</p> <p>GYM (Women)</p>	 
	Two Wooden Badminton Courts	
	<p>Wooden Basketball Court (Indoor)</p> <p>Wooden Volleyball Court (Indoor)</p>	

Gymnasium Hall (Men's)



Gymnasium Hall (women's)




Squish Court/Hall






Five tables for Table Tennis



(b) Outdoor Sports Facilities

<p>One Billiards table</p>	
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(b) Outdoor Sports Facilities

<p>02 Athletics Stadium</p>	
<p>03 Cricket Stadium</p>	
<p>04 Swimming Pool Stadium</p>	

<p>05</p>	<p>Basketball Court (with flood lights)</p>	
<p>06</p>	<p>Lawn Tennis Court (with flood lights)</p>	
<p>07</p>	<p>Hockey Astro-Turf</p>	

08	Golf Course (18 Holes) with Driving range	 
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02. Achievements at various levels.

2.1 Modern Coach Factory has organized various interdepartmental & All India Railway Championships in 2023-24

Sl. No.	Event description	Date
01	Interdepartmental Swimming Championship	05/08/2023
02	88 th All India Railway Athletic Championship	23/08/2023 to 25/08/2023
03	81 st All India Railway Hockey (Men) Championship 2023 -24	05/10/2023 to 10/10/2023
04	National Unity Day	31/10/2023
05	Interdepartmental Bicycle Race	05/11/2023
06	Interdepartmental Athletic Championship	24/12/2023
07	Interdepartmental Volleyball Tournament	04/01/2024 to 06/01/2024
08	Interdepartmental Cricket Tournament GM Cup -2024	01/02/2024 to 10/02/2024
09	Interdepartmental open Badminton Tournament	27/02/2024 to 01/03/2024

2.2 Cricket

Sh.Vikash Chaoudhary, Ch. OS Stores department was nominated as fitness trainer for Indian Railway Men U-23 Cricket team for Coaching Camp, One Day trophy matches, Col C.K Nayudu Trophy.

2.3 Athletics Team

② MCF team has participated in 88th All India Railway Athletic Championship at MCF, Raebareli & MCF Secured 7 medals. Details are following below:

- Km. Payal - Gold (Womens 35Km.Race Walk), Silver (Womens 20Km. Race Walk)
- Nanhi – Gold (Womens 400m. Hurdles)
- Munita Prajapati – Gold (Womens 20km.Race Walk)
- Km.Jyoti –Bronze (Womens 1500m.)
- Somnath Chauhan- Bronze (Men’s 800m.)
- MCF - Silver (Mixed relay Race 4 X 400m)

- ② MCF Athletes won medals for Indian Railways in 62nd Open Senior National Athletic Championship ; medal details are following below
- Munita Prajapati – Gold (womens 20km.Race Walk)
 - Somanath Chauhan – Bronze (Men’s 800m.)

2.4 MCFSA has organised 88th All India Railway Athletics Championship 23-24.

88th All India Railway Athletics Championship 2023-24 was organized in befitting manners from 23rd to 25th August 2023 by MCF Sports Association at Bahadur Prasad Athletics Stadium, MCF,Raebareli and more than 23 teams and more than 500 players & officials from different Railways were participated in this event.



2.5 MCFSA has organized 81st All India Railway Hockey Men's Championship 2023-24.

81st All India Railway Hockey Men's Championship 2023-24 (League Phase) was organised in befitting manners from 05th to 10th October 2023 by MCF Sports Association at Rani Girl's Hockey Stadium, at MCF, Raebareli and around 08 teams and more than 250 players & officials from different Railways were participated in this event.



2.6 Badminton:

Dr. Manish Kumar , DMO participated in 6th National Para Badminton Championship -2023-24 at Jharkhand .

2.7 Wrestling

Shri Sandeep Kumar Tech –II has been nominated as a attendant for Indian Railway Wrestling (Men) Players Coaching Camp at Kapurthala from 04/10/2023 to 02/11/2023.

2.8 Golf

MCF team participated in 66th All India railway Golf Championship 2022-23 at BLW, Varanasi from 13.03.2023 to 15.03.2023.