SUPREME AUDIT INSTITUTION OF INDIA
लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest

Report of the Comptroller and Auditor General of India on Working of Mancheswar Carriage Repair Workshop in East Coast Railway and Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

Union Government
Ministry of Railways
Report No. 2 of 2025
(Compliance Audit - Railways)

Report of the
Comptroller and Auditor General of India on

Working of Mancheswar Carriage Repair Workshop in East Coast Railway

and

Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

Union Government
Ministry of Railways
Report No. 2 of 2025
(Compliance Audit - Railways)

Preface

The Report for the year ended March 2023 has been prepared for submission to the President under Article 151 (1) of the Constitution of India.

The Report contains significant results of the audit of the Ministry of Railways of the Union Government on two topics viz. “Working of Mancheswar Carriage Repair Workshop in East Coast Railway” and “Construction of 5thand 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station”.

The instances mentioned in this Report are those which came to notice in the course of test audit for the period 2022-23 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; instances relating to the period subsequent to 2022-23 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Contents

Executive Summary

Executive Summary

The Audit Report for the year ending March 2023 comprises two Chapters-

Chapter I: Working of Mancheswar Carriage Repair Workshop in East Coast Railway

Chapter II: Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

A brief overview of the important audit findings and recommendations is given below:

Chapter I: Working of Mancheswar Carriage Repair Workshop in East Coast Railway

Carriage Repair Workshop, Mancheswar (CRW/MCS) of East Coast Railway (ECoR) was established in November 1981 for the purpose of undertaking repair of Railway coaches. CRW/MCS initially had a capacity for Periodical Overhaul (POH) of 45 coaches per month which was increased to 100 coaches per month in 2003-04.

During 2008 to 2016, augmentation of the workshop was carried out to enhance the outturn capacity of the workshop to 150 coaches per month. As against the outturn capacity of 150 coaches per month, the outturn of the workshop during the period from 2016-17 to 2022-23 ranged between 86 and 113 coaches per month.

Audit on the working of the workshop was conducted to assess whether the targets were set based on actual POH arising of the workshop and were achieved in a timely manner. Audit also focused on the issues related to augmentation of the capacity of the workshop besides management of machinery and stores.

Audit observed that the projections for coaches due for POH were not realistic and the same had undergone downward revision every year. Besides delay in sending of coaches for POH by the depots, the time taken by the workshop in carrying out POH of coaches was up to three years as against the prescribed cycle days of 15/20 days. Audit also observed that the maximum instances of delays were in the Coach Body Repair Shop. 191 coaches were idle for a period ranging from 10 days to 171 days involving 6558 idle coach-days and in 43 instances, the coaches were idle for more than 50 days.

In August 2012, Railway Board directed all Zonal Railways to monitor coach failures within 100 days of POH and take preventive action. Further, in the minutes of meeting of Chief Works Engineers held in

February 2020, PCMEs of Zonal Railways were directed to ensure that the quality of outturn must be of high degree and quality parameters like sick marking of POH coaches should be monitored by CWE/CWM and root cause analysis of all the failures reported should be undertaken, and preventive action be taken accordingly.

Audit observed that the number of coaches that failed within 100 days of POH during the period 2018-19 and 2019-20 was 103 and 139 respectively. Out of 3402 coaches overhauled during 2020-23, 131 coaches failed within 100 days of POH.

The POH capacity of the workshop was understated while reporting to Railway Board. Despite enhancement of its POH capacity to 150 coaches per month in 2016, further capacity augmentation works worth ₹ 181.78 crore was taken up during 2018-19 to 2022-23 without assessing the compatibility of existing infrastructure and a realistic requirement in future.

Audit also observed that the budgeting of the workshop was not based on the unit cost as per codal provisions and also in commensurate with the projection for POH of coaches leading to excess budgeting. The coach ownership of ECoR shows wide variation in coach holding data of depots, Zonal Headquarter and Integrated Coach Management System (ICMS) due to not feeding real time data.

Four high-value machines worth ₹ 4.15 crore had been lying idle for years due to inherent defects of the machines. Shortfall in procurement of material had resulted in shortage of stocks and the user units repeatedly complained about non-availability of materials.

The monitoring of POH activities through Workshop Information System (WISE) application was not effective. There were several instances of mismatch of data between WISE and manual records.

Major Recommendations:

CRW/MCS needs to –

- ***Ensure realistic projection of coaches for POH based on actual return date of coaches and ensure timely supply of coaches to the workshop for POH.***
- ***Follow the codal provision for budgeting based on unit cost and projection of outturn.***
- ***Ensure POH of coaches within the stipulated time and avoid idling of coaches inside the workshop.***
- ***Monitor the reporting mechanism of coaching depots to ensure reporting of all instances of coach failures after POH.***

- ***Re-assess the POH capacity of the workshop for various types of coaches in light of the existing capacity and ongoing augmentation works.***
- ***Strengthen checks and monitoring mechanisms to ensure receipt of machinery of desired specification.***
- ***Improve inventory management system to ensure availability of stores as per requirement.***
- ***Maintain absolute transparency in feeding concurrent and correct data to make WISE a reliable application for decision-making.***
- ***Ensure that proper checks are in place for the quality of POH repairs.***

Chapter II: Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

Railway Board's (RB) instructions of June 2008 for provision of housing to be kept to a bare minimum level only just to meet the functional requirements and submission of estimate with full details and justification were not followed at the time of preparing Detailed Estimate. This led to improper Detailed Estimate prepared by M/s. Rail India Technical and Economic Service (RITES) resulting in delay in its sanction by RB.

Baseline Socio-Economic (BSE) survey for Phase I work was not completed even after lapse of more than 11 years from September 2012. Further, Project Affected Persons (PAPs) were not rehabilitated (January 2024) as Mumbai Metropolitan Region Development Authority (MMRDA) could not complete the construction work of units at Kilburn, Nahur. This led to delay in getting possession of land.

Non-adherence of codal provisions and RB's instructions of minimum acquisition of land resulted in excess assessment of land requirement at the Detailed Estimate stage. Further, instances of lack of co-ordination between M/s. RITES and State Govt. agencies were noticed. These contributed in delay in BSE survey and land acquisition**.** Land acquisition process for Phase II work from Parel to CSMT was still at the initial stage.

Contracts for construction were awarded without approved designs and drawings, clear sites, *etc*. which led to delay in completion of work. Audit also observed instances of idling of electrical and Signal and Telecommunications (S&T) materials due to award of contracts without ensuring availability of clear sites. There was lack of co-ordination between Zonal Railways, as the proposal for transfer of land from

Western Railway (WR) to Central Railway (CR) was forwarded by CR to WR in December 2015, but transfer of land by WR has not been done till date (January 2024). The above factors contributed to the extension of the scheduled date of completion of the project from March 2021 to March 2024. Despite expenditure of ₹ 500.93 crore (56.22 *per cent*) (January 2024) made against the sanctioned estimate of ₹ 890.89 crore (September 2014), only 26 *per cent* of the work was physically completed (January 2024) indicating that the target date of completion of project would be further extended.

Major Recommendations:

- ***Comprehensive assessment of requirement of land needs to be done for acquisition of land in densely populated areas.***
- ***RB's instructions that contracts for works should not be awarded unless all plans, drawings and estimates duly approved are available and there is no hitch in handing over of site may be adhered to while awarding contracts.***
- ***CR may enhance engagement with all stakeholders including Government agencies, Railway authorities, contractors and local communities to ensure alignment on project goals.***

Chapter I-

Working of Mancheswar Carriage Repair Workshop in East Coast Railway

Working of Mancheswar Carriage Repair Workshop in East Coast Railway

1.1 Introduction

Carriage Repair Workshop, Mancheswar (CRW/MCS) of East Coast Railway (ECoR) was established in November 1981 for the purpose of undertaking repair of Railway coaches. The first coach was turned out from the shop on 31 December 1983. CRW/MCS initially had a capacity for Periodical Overhaul (POH)[1] of 45 coaches per month which was increased to 100 coaches[2] per month in 2003-04.

The activities undertaken in the workshop include periodical and intermediate overhauling of ICF, LHB and MEMU[3] coaches, corrosion repair, supply of trolley, wheel sets and loose wheels to Coaching Depots of ECoR, special repairs and accident-related repairs of coaches, *etc*.

During 2008 to 2016, augmentation of the workshop was carried out to enhance the outturn capacity of the workshop to 150 coaches per month. As against the outturn capacity of 150 coaches per month, the outturn of the workshop during the period from 2016-17 to 2022-23 ranged between 86 and 113 coaches per month[4].

1.2 Organisational structure of the workshop

At Railway Board (RB) level, Member (Traction & Rolling Stock) is the head of Mechanical Workshops. At Zonal Headquarters level, Principal Chief Mechanical Engineer (PCME) is the head of the Mechanical Department under the General Manager (GM). He is assisted by Chief Workshop Engineer (CWE). Chief Workshop Manager (CWM) of CRW, MCS reports to CWE. The CWM is assisted by officers of various departments like Mechanical, Electrical, Civil Engineering, Personnel, Accounts, Security and Stores Department. The organisational structure of CRW/MCS is shown in the following chart.

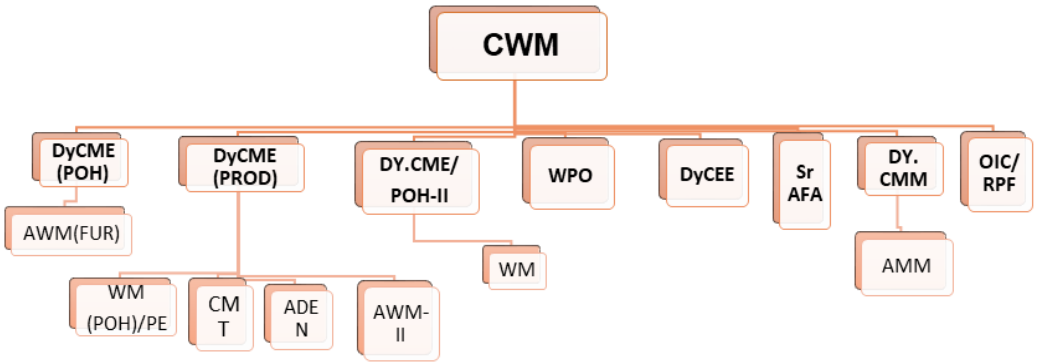
---

1 **POH is a major scheduled repair of coaches**

2 **90 non-AC and 10 AC coaches**

3 **ICF stands for Integral Coach Factory type of coaches, LHB refers to Linke Hofmann Busch coach and MEMU stands for Mainline Electric Multiple Unit**

4 **As per Annual Reports of the GM/ECoR**



1.3 Coach maintenance schedules

Maintenance schedule of different classes of rolling stock is broadly classified by usage duration, from trip /weekly /monthly scheduled repairs to Intermediate Overhaul (IOH) at coaching depots and major scheduled repair i.e., Periodical Overhaul (POH) in the workshop, as stated in the following **Table 1.1**.

Table 1.1: **Maintenance Schedules of various categories of coaches**

Rolling stock category	Shop maintenance schedule
Integral Coach Factory (ICF) Coaches (AC and non-AC) and Mainline Electric Multiple Unit (MEMU) coaches	IOH after 9 months (bogie repair) POH after 18 months (2 years for first POH)
Other Coaching Vehicles (OCV)/ Special Purpose Vehicles (SPV) ● Observation Car & Accident Relief Train/Accident Relief Medical Equipment van ● Camp Coach, Tower Car and Departmental Coach	 IOH after 12 months POH after 48 months IOH after 24 months POH after 48 months
Linke Hofmann Busch (LHB) Coach (AC and non-AC)	Shop Schedule-I[5] (SS-1 i.e. IOH) after 18 months Shop Schedule-II and III (SS-II and SS-III or POH) after 36 and 72 months respectively.

Source: Maintenance Manual for LHB coaches and ICF coaches

During IOH, attention is given to under-gear (bogie frame, wheels, air brake) and shell whereas POH are major maintenance schedules of

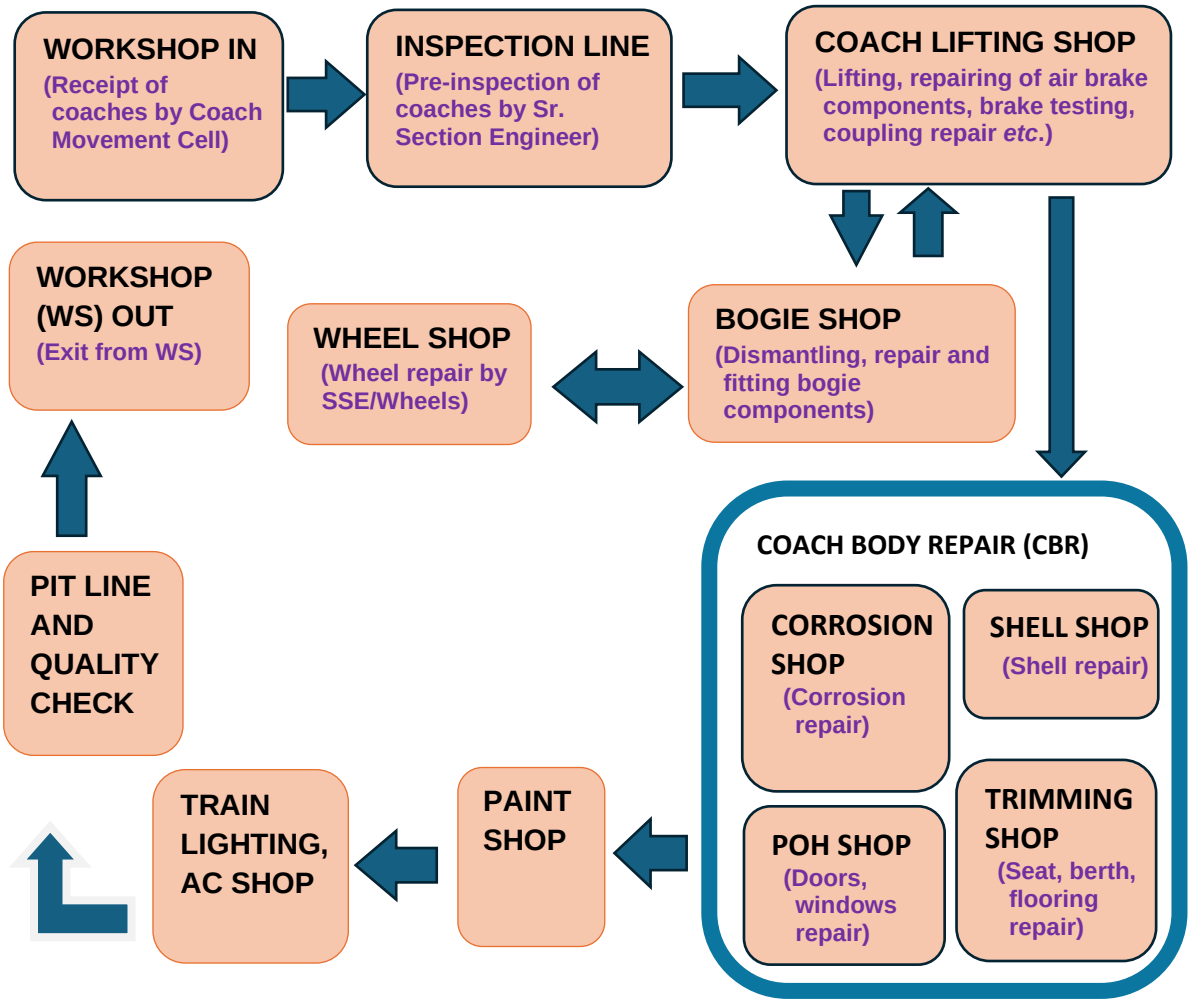
[5] **IOH (Shop Schedule I): 18 months/6 lakh Km., whichever is earlier; POH (Shop Schedule II): 3 years/12 lakh Km., whichever is earlier and POH (Shop Schedule III): 6 years/24 lakh Km., whichever is earlier.**

thorough maintenance which involves separate, individual inspection and repair or replacement of parts and subparts of various components. In addition, some design upgrade or amenity refurbishment is also carried out during POH.

1.4 Flow diagram of movement of coaches during POH

As per the decisions recorded in the minutes of meeting of CWEs held at Central Organisation for Modernization of Workshop (COFMOW) in March 2018, prescribed average cycle time for POH of ICF and LHB coaches was between 15 and 20 days. During POH, a coach passes through various shops of the workshop as shown in the following flow chart.

Flow Diagram of movement of coaches inside CRW, MCS of ECoR



1.5 Audit objectives

The audit objectives were to assess whether -

i. The targets were set based on actual POH arising[6] of the workshop and were achieved in a timely manner;

ii. The capacity augmentation of the workshop was commensurate to the workload;

iii. Management of machinery and stores was as per norms;

iv. The monitoring and internal control mechanisms were functioning as per established frameworks and instructions.

1.6 Scope and methodology of audit

The audit covered issues for assessing the working of the workshop with reference to planning, resource allocation, monitoring and internal control mechanism in place during the period 2020-21 to 2022-23.

The audit methodology involved examination of records of the workshop and analysis of relevant data obtained on functioning of the workshop. The audit was conducted as per the provisions of the "Regulations on Audit and Accounts 2020" formulated by the C&AG of India.

The entry and exit conferences in the Zonal Railway were held in May 2023 and May 2024 respectively. The response of the Ministry of Railways (October 2024) have been considered for drawing up the audit conclusion.

1.7 Audit criteria

The criteria for evaluation of performance of the workshop were derived from the provisions contained in the following codes and manuals of Indian Railways:

i. Indian Railways Rolling Stock Code-2016.

ii. Indian Railways Finance Code Volume I-1999.

iii. Indian Railways Stores Code 1990.

iv. Maintenance Manuals for ICF (2002) & LHB coaches (2013).

v. IRCA Rules Part-IV (June-2014).

vi. Railway Board's instructions issued from time to time.

[6] **Number of coaches due for POH**

1.8 Audit sample

Audit adopted sample check for examining the relevant records on various issues as per the audit objectives. The criteria for selection of sample and the sample size is shown in the following **Table 1.2**.

Table 1.2: Sample size for test-check in audit

Category	Criteria	Total Population	Sample Size
Coaches	10 *per cent* of coaches overhauled within 30 days and 20 *per cent* of coaches with repair time beyond 30 days for each year	3402	447 [7]
Stores	Selection through stratified random sampling in IDEA software covering 20 *per cent* of A category[8] and 10 *per cent* of other categories of materials for which Anticipated Annual Consumption (AAC) was prepared by Dy. CMM[9]/CRW/ MCS	1151	123 [10]
Purchase Orders (POs)	POs of money value exceeding ₹ 10 lakh issued by Dy. CMM of CRW/MCS	3123	137

1.9 Audit findings

Audit Objective-I: Whether the targets were set based on actual POH arising of the workshop and were achieved in a timely manner.

1.9.1 Target and performance of the workshop

Railway Board (RB) seeks the projection of receipt of coaches due for POH from all Zonal Railways (ZRs) for the ensuing year for fixing the annual target of POH of workshops. While seeking projection of POH of coaches, RB emphasised on correct assessment of arising mentioning past instances of mid-term correction of targets.

During the review period 2020-23, ECoR projected the number of POH arising in CRW/MCS for setting up targets by RB. The year-wise

---

[7] **Sample included 242 coaches out of 2374 coaches overhauled within 30 days and 205 coaches out of 1028 coaches overhauled in period beyond 30 days.**

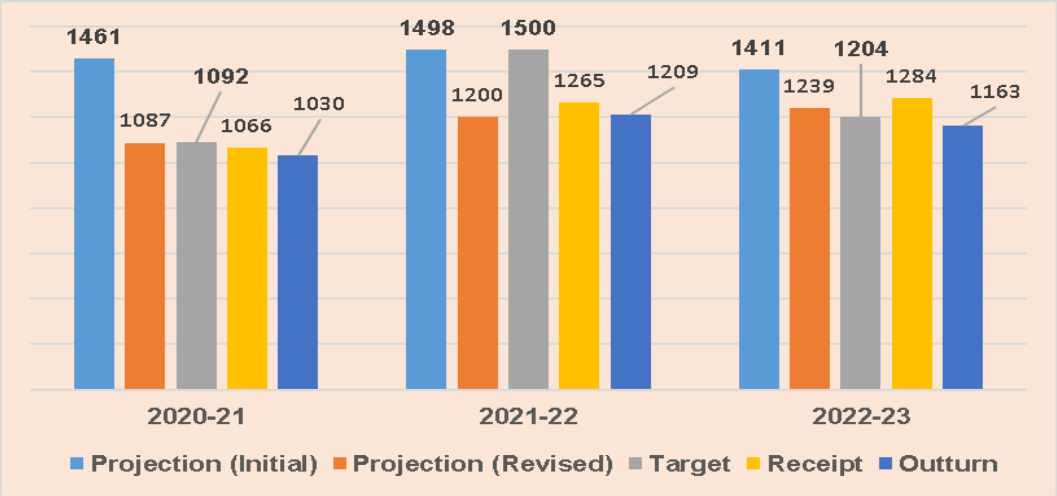
[8] **Materials are classified as A, B, C, D category by Railway based on the value of consumption where A category are high value stores.**

[9] **Deputy Chief Material Manager**

[10] **Sample included 17 out of 87 A category items, 16 out of 162 B-category and 90 out of 902 C&D Category materials**

projection of POH arising vis-à-vis target fixed by RB is depicted in the following chart:

Chart 1.1: POH projection, target, receipt and outturn of coaches



Source: ***Data of POH projection by PCME/ECoR, target set by RB, Receipt of coaches for POH and POH outturn data of CRW/MCS***

From the above chart, it is observed that as against the initial projection of 4370 POH arising during the review period, RB set a target for POH of 3796 coaches and outturn of the workshop was 3402 coaches. Despite the instructions of RB to exercise due care while projecting POH arisings, the initial projection of ECoR was revised downward every year during the half yearly review. The reasons for downward revision of projection are shown in the following **Table 1.3**:

Table 1.3: Reasons for downward revision of projection

Year	Reasons for revision of projection
2020-21	Change in POH periodicity, extension of schedule of POH and reduced outturn due to COVID 19 pandemic.
2021-22	• Reduction in service life of ICF coaches from 25 years to 20 years. • ICF coaches of more than 18 years were not taken for POH. • Revision of POH periodicity of departmental coaches from 2 years to 4 years.
2022-23	Replacement of ICF rakes with LHB coaches.

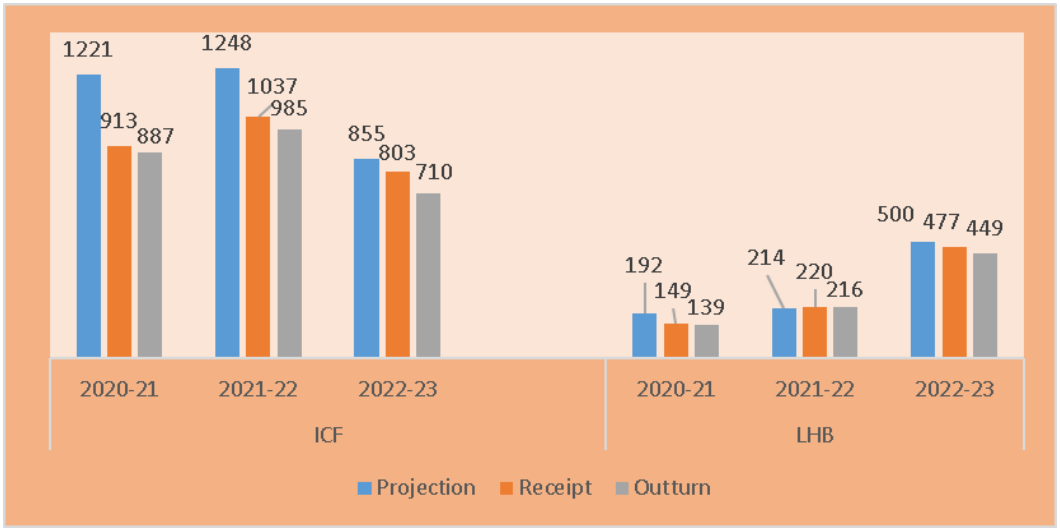
Audit had sought the list of coach numbers, base depots and due dates of POH of coaches for which projection was sent to RB during 2020-21 to 2022-23. In reply, PCME/ECoR office stated (February 2024) that RB desired the POH arising only in figures and accordingly, the data was sent to RB in figures. It was also stated that the PCME office did not maintain the data of POH arising.

In October 2024, the Ministry of Railway (MoR) stated that the outturn of the workshop was seriously affected due to Covid19 pandemic, reduction of ICF coach population and introduction of LHB coaches.

In this connection, it is stated that though the outturn of ICF coaches reduced from 887 in 2020-21 to 710 in 2022-23 (19.95 *per cent)*, there was increase in outturn (985) in 2021-22.

POH projection and POH outturn of ICF and LHB coaches is shown in the following chart:

Chart 1.2: POH projection, receipt and outturn of ICF and LHB coaches



Source: Coach type-wise POH projection by PCME/ECoR, data of coach receipt and outturn in CRW/MCS.

From the above chart, it was observed that against a projection of 3324 ICF coaches receipt was 2753 (82 *per cent*) and for LHB coaches, the projection was 906 against which the receipt was 846 (93 *per cent*).

It was further observed that:

- The outturn of the workshop was 3402 (ICF-2582, LHB - 804 and MEMU-16) during 2020-23, as against the receipt of 3615 coaches (ICF-2753, LHB- 846 and MEMU-16).
- The workshop could not achieve the target set by RB. As against the outturn target for POH of 1092, 1500 and 1204 coaches during 2020-23, actual outturn[11] was 1030, 1209 and 1163 coaches respectively.

During the exit conference, CWM stated (May 2024) that IOH/SS-I carried out by the workshop involved consumption of man-hour and

[11] **This includes 4,8 and 4 MEMU coaches overhauled during 2020-23.**

resources which were not included in the outturn. However, the fact remains that the projections made were 20 *per cent* to 38 *per cent* higher than the outturn during the three year period, even if the outturn of IOH of coaches was taken into consideration as shown in the following **Table 1.4**:

Table 1.4: Projection vis-a-vis outturn

Year	Projection/Outturn	POH	IOH	IOH in terms of POH equivalent*	Total
2020-21	Projection	1461		96	1557
	Outturn	1030	955	96	1126
	Percentage of higher projection over outturn	42			**38**
2021-22	Projection	1498		92	1590
	Outturn	1209	920	92	1301
	Percentage of higher projection over outturn	24			**22**
2022-23	Projection	1411		103	1514
	Outturn	1163	1031	103	1266
	Percentage of higher projection over outturn	21	2906	290.6	**20**

One IOH is equivalent to 0.1 of POH

Source: Data of POH projection by ECoR, POH outturn data and IOH done by CRW/MCS as stated in the reply of MoR.

As per the instructions of RB, IOH repair is the job of coaching depots. By undertaking IOH repairs, CRW/MCS understated POH capacity to the RB.

1.9.2 Analysis of projection to Railway Board for coaches due for POH

Para 111(a) of Maintenance Manual for ICF coaches prescribes that all Passenger Coaching Vehicles (PCVs) and Other Coaching Vehicles (OCVs), owned by the zones, should be allotted a base depot by the Chief Mechanical Engineer of the zones for primary maintenance and a base workshop for POH. The base depot will be responsible for maintenance of the coaches and sending the coaches to the workshop for POH. No overdue POH coaches of other zones should be allowed in service but should be booked to the owning zones for POH.

ECoR is required to furnish the data to RB in respect of the projection of coaches due for POH in a year on the basis of actual return date[12] as per prescribed periodicity of 18 months for ICF coaches and 36 months for LHB coaches.

Audit analysed the data of coach ownership of ECoR and observed that the coach holding status varied among the different sources as indicated in the following **Table 1.5**:

Table 1.5: Coach holding status collected from different sources

Sources of data	ICF	LHB	MEMU	Total
Coach holding as per ICMS[13] data (as on 19 July 2023)	2161	2329	193	4683
Coaches without base depot in ICMS data out of 4683	244	833	154	1231
Coach holding of coaching depots of ECoR shown in Monthly Confidential Demi-official (MCDO) for the month of July 2023.	1098	1900	NIL	2998
Coach holding of coaching depots of ECoR as per MCDO for the month of August 2023.	1047	1946	NIL	2993
Coach Master data supplied by the PCME office and MEMU shed/KUR	1880	2243	168	4291

Source: Rolling stock data as per ICMS Report No. 601D-Stock position on owning basis i.e, total holding of ECoR (July 2023), Coach master data supplied by PCME office and MEMU shed/KUR (August 2023) and Coach holding data of four coaching depots of ECoR (July & August 2023).

From the above table, it is observed that the coach ownership of ECoR shows wide variation in coach holding data of depots, Zonal HQ and ICMS. The difference of data was due to not feeding real time data in CMM module[14] by the coaching depots of ECoR.

---

[12] **Return date is the next due date (18/36 months later) after POH of each coach. The coach should return to workshop by that date for POH.**

[13] **Integrated Coaching Management System (ICMS) is an IT application implemented in Indian Railways (IR) with the objective of monitoring punctuality of trains and online monitoring status of coaches in real time. ICMS comprises of Punctuality Analysis and Monitoring (PAM) module, Coaching Operation Information System (COIS) module, and Data/Report and Utility module.**

[14] **Coach Maintenance Management (CMM) module is a part of ICMS project and implemented in IR for keeping records of maintenance of coaches. It is integrated with the ICMS Reports module.**

As per records of the four coaching depots of ECoR, 2862 coaches[15] were due for POH during 2020-2023 which was less than the revised projection of 3526 coaches sent by PCME, ECoR to RB as shown in Chart 1.1.

Thus, inaccuracy in maintenance of coach holding data resulted in incorrect projection of POH arising and its subsequent downward revision during half yearly review.

MoR stated (October 2024) that the outturn of the workshop was affected due to Covid 19 pandemic. It was also stated that the extension of POH and IOH by six months due to the pandemic significantly reduced the arising.

Audit observed that even in the post Covid period in 2022-23, the outturn of the workshop was 1163 as against the receipt of 1284 coaches. Further, the workshop received 1066, 1265 and 1284 coaches during 2020-21, 2021-22 and 2022-23 respectively. The increasing trend of receipt of coaches contradicted the contention of MoR that the extension of POH and IOH schedules had significantly reduced the arising.

Regarding the difference in data drawn from different sources, MoR stated that ICMS data of coaches is maintained by CRIS, which does not reflect the ground realities. Ministry further asserted that coach holding data maintained by Mechanical Department of ECoR correctly reflect the ground reality on real-time basis.

The fact remains that ICMS application was developed by CRIS. The data available in ICMS report is a reflection of the data entry made by railway authorities at various levels through CMM, COIS and PAM modules which are integrated with ICMS reports module. Therefore, ICMS data should reflect the ground position on a real-time basis.

1.9.3 Delay in sending coaches for POH by the coaching depots

Indian Railways Conference Association (IRCA) Rules Part-IV, Rule 2.3.4 prescribes that if a rolling stock due for POH is retained in service beyond return date for any reason, it shall be given another scheduled repair at depot within one month of expiry of the return date, after which the return date may be extended for three months from the date of such repair. If the return date of a coach is extended, it must be booked to workshop for POH as per the extended return date.

[15] **BBS -585, VSKP-1002, Puri-888 and SBP-387**

Although coaches due for POH must come to workshop for POH within three months of scheduled return date, the four depots of ECoR did not adhere to the provision. During 2020-23, coaching depots sent 3086 coaches to the workshop. The status of time taken in sending coaches to the workshop is indicated in **Table 1.6**.

Table 1.6: Number of coaches sent to workshop

Range of delays	BBS	Puri	SBP	VSKP	Total	*Per centage* of total no. of coaches
Dispatched in time	274	479	229	415	1397	45.3
With delay up to 3 months	167	369	87	656	1279	41.4
With delay of 3 to 6 months	44	47	15	61	167	5.4
With delay of 6 to 12 months	22	8	3	12	45	1.5
With delay exceeding 12 months	3	2	1	1	7	0.2
Due date is not marked	11	3	20	0	34	1.1
Sent before due date	71	29	7	50	157	5.1
Total no. of coaches sent by depots	**592**	**937**	**362**	**1195**	**3086**	

Source: Data of coach dispatch dates and the respective return dates supplied by the coaching depots of ECoR

From the table above, it is observed that the depots sent 1397 (45.3 *per cent)* coaches for POH in time. 41.4 *per cent* of 3086 coaches were sent to the workshop with delays ranging from one to three months. Further, depots had sent 157 coaches to the workshop before the due date of POH. It was also observed that 12 coaches were sent to workshop more than six months in advance of the due return date.

The due return date was not mentioned in the depot records in case of 34 coaches which was in violation of IRCA Rule 2.3.4.

The Depot authority stated (January 2024) that the main reasons for delay in sending coaches for POH were Covid-19 pandemic and coaches detached from train service were kept in POH account to be sent to workshop by the Operating Department.

The reply of the Depot authority is generic in nature. Audit observed that although the delays increased during the pandemic, there were instances of delays in sending coaches for POH in the pre and post pandemic periods also as shown in the following **Table 1.7:**

Table 1.7: Number of coaches sent for POH with delay

Year	Total number of coaches sent by depots	Number of coaches sent with delay	Percentage of coaches sent with delays
2018-19	1116	321	29
2019-20	1322	303	23
2020-21	923	620	67
2021-22	1000	384	38
2022-23	1163	494	43

Source: Data of coach dispatch dates and the respective return dates supplied by the coaching depots of ECoR

It is observed that there was delay in sending coaches for POH during the pre-pandemic period ranging from 23 to 29 *per cent* which increased to 67 *per cent* during the pandemic. In the post pandemic years also, 38-43 *per cent* of the coaches were sent for POH with delays.

Thus, ECoR did not ensure timely dispatch of coaches from the coaching depots and held back coaches due for POH beyond the return dates in violation of the codal provisions. Delay in sending of coaches for POH also hindered the realistic projection and outturn of POH of ECoR.

1.9.4 Overhauling of coaches

In March 2018, RB advised all ZRs to achieve an average cycle day of 20 days for POH of ICF AC coaches, 15 days for ICF non-AC coaches, and 20 days for POH of LHB coaches.

The time taken by the workshop in carrying out POH of 3402 coaches during 2020-23 is indicated in the following **Table 1.8**:

Table 1.8: Cycle time of POH of CRW/Mancheswar

Sl. No.	Cycle time of POH	No. of ICF Non-AC Coaches	No. of ICF AC and LHB coaches	Total	Percentage to total number of coaches
1	POH done within stipulated period[16]	964	664	1628	47.9
2	From stipulated period to 30 days	564	182	746	21.9
3	31 days to 90 days	302	381	683	20.0
4	91 days to 180 days	137	114	251	7.4

[16] **15 days for ICF Non-AC and 20 days for other types**

Sl. No.	Cycle time of POH	No. of ICF Non-AC Coaches	No. of ICF AC and LHB coaches	Total	Percentage to total number of coaches
5	181 days to 365 days	58	22	80	2.4
6	366 days to 1003 days	10	4	14	0.4
7	**Sub-total of coaches of POH time beyond stipulated days (Sl. No. 2 to 6)**	**1071**	**703**	**1774**	**52.1**
Total		**2035**	**1367**	**3402**	

Source: POH outturn statement of CRW/MCS

Thus, from the above table, it is observed that in 1774 out of 3402 coaches (52.1 *per cent)*, the time taken by the workshop in carrying out POH exceeded the stipulated period of 15/20 days.

In response to the audit query, the Workshop authority stated (February 2024) that all coaches fed to the workshop were not given immediate attention. They further stated that priority for POH was given to some selected coaches on the basis of the following criteria:

i. Capacity of the shop concerned and its work load, availability of manpower with material;

ii. Requirement/urgency of coaching stocks for different coaching depots.

Audit observed that there was significant delay in attending the coaches due to prioritising and many coaches remained idle. Audit analysed the delay in respect of a random sample of 447 coaches drawn from 10 *per cent* of coaches overhauled within 30 days and another 20 *per cent* of coaches overhauled beyond 30 days. The range of delays in respect of 447 coaches are indicated in the following **Table 1.9**:

Table 1.9: Overhauling of coaches

Coach Type	Total selection	No. of coaches overhauled within					
		15 days	Upto 20 days	21 to 30 days	1 to 3 months	3 to 6 months	6 months to 374 days
ICF non-AC	248	98	33	28	53	26	10
ICF AC	93	-	20	12	38	20	3
LHB AC	54	-	16	7	26	5	0
LHB non- AC	52	-	27	1	20	2	2
Total	**447**	**98**	**96**	**48**	**137**	**53**	**15**
Idle coach-days					**7244**	**6414**	**3689**

Source: Records of the workshop

From the above table, it is observed that –

- Overhauling of 137 coaches took over 30 days to 90 days, involving 7244 idle coach days.
- 53 coaches took 91 to 180 days for overhauling. Out of 6414 idle coach days, 2661 coach-days were shown against various shops, and the remaining 3753 coach-days were not displayed in the records of any shop.
- Overhauling of 15 coaches took time ranging from 180 days to 374 days. Of the total 3689 coach days, 818 coach days were shown against various shops, and the remaining 2871 coach days were not displayed in the records of any shop.
- Considering ₹ 5422.27 revenue[17] per coaching vehicle per day in ECoR for 2021-22, there was a loss of earning capacity of ₹ 7.69 crore due to idling of coaches inside the workshop beyond the stipulated cycle time of POH as shown in ***Annexure- 1.1.***

Audit also observed that the maximum instances of delays were in the Coach Body Repair Shop. 191 coaches were idle for a period ranging from 10 days to 171 days involving 6558 idle coach-days and in 43 instances, the coaches were idle for more than 50 days.

MoR stated (October 2024) that delay was caused due to Covid outbreak and in general, the average time of POH was 51.54 days in 2020-21 was reduced to 23.08 days in 2021-22 and 16.72 days in

[17] **As per the Financial results & important Statistical Highlights published by Finance Department of ECoR**

2022-23. They also stated that there was no loss since no train service was affected.

Audit analysis of cycle time of POH of all coaches of CRW/MCS as mentioned in Table 1.8 revealed that the maximum time taken for repair of coaches in the workshop was more than three years. The delay was due to not taking up repair work of coaches immediately after receipt in the workshop and the delayed coaches were lying in the yard unattended resulting in loss of earning capacity.

1.9.4.1 Failure of coaches within 100 days of POH

In August 2012, RB directed all Zonal Railways to monitor coach failures within 100 days of POH and take preventive action. Further, in the minutes of meeting of Chief Workshop Engineers held in February 2020, PCMEs of Zonal Railways were directed to ensure that the quality of outturn must be of high degree and quality parameters like sick marking of POH coaches should be monitored by CWE/CWM and root cause analysis of all the failures reported should be undertaken, and preventive action be taken accordingly.

Audit observed that the number of coaches that failed within 100 days of POH during the period 2018-19 and 2019-20 was 103 and 139 respectively. Out of 3402 coaches overhauled during 2020-23, 131 coaches failed within 100 days of POH as mentioned in the following **Table 1.10**:

Table 1.10: Number of coaches that failed within 100 days of POH

Range in days	No. of coaches failed			Total
	2020-21	2021-22	2022-23	
0-10	4	5	2	11
10-20	4	11	1	16
20-50	5	16	17	38
50-100	9	43	14	66
Total	**22**	**75**	**34**	**131**
Shops responsible for failure of coaches	Bogie Shop- 9, Coach Lifting Shop - 7, POH shop- 6	Bogie Shop - 21, Corrosion Shop - 7, Coach Lifting Shop-34, POH Shop-9, Wheel Shop- 3, Other- 1	Bogie Shop - 13, Corrosion Shop -3, Coach Lifting Shop - 16, POH Shop – 2,	

Source: Records maintained by the depots

Audit further observed that –

- Out of 131 coaches failed within 100 days of POH and repaired at depots, 14 instances were reported to CRW/MCS and PCME office of ECoR and the remaining 117 instances were not reported by the depots.
- In addition to failure of 131 coaches, PCME office intimated the workshop about the failure of 114 coaches within 100 days of POH due to mechanical and electrical faults. Out of these, CRW/MCS did not accept 71 failures as the depots concerned did not furnish the detailed report of failure.

In respect of 17 LHB coaches that failed within 100 days, Audit observed that 19 must-change mechanical items were replaced by second-hand serviceable items by the bogie repair shop during the POH, thereby not only violating the prescribed procedure of must change items during POH as mentioned in the LHB maintenance manual but also compromising passenger safety.

In this connection, the following case study is highlighted by way of illustration:

One LHB Coach No. 184681 (Old No. 18223) was sent by BBS Coaching Depot on 12 April 2022 for POH. The coach passed through different shops for repairing before it reached the bogie shop on 19 April 2022. Out of 14 must change items pertaining to the Bogie shop, three must change items (Traction centre elastic joint, lateral bump stop, and safety wire rope pin) were replaced by second-hand serviceable materials. The repaired coach was sent back to BBS coaching depot on 27 April 2022.

The coach was, however, reported sick in the BBS depot twice on 29 May 2022 and 19 July 2022, within 100 days of POH. On the first occasion, the coach failed due to the defect "L1 L2 R1 secondary spring rubber bump stop displaced rubbing with inner bolster spring". From the records it revealed that the must change rubber items were replaced by second-hand serviceable materials by the Bogie Repair Shop during POH. The coach was repaired at BBS depot by replacing the cracked rubber spring.

In the second instance of failure, the defect was a repetition of the earlier failure. The coach was again repaired and declared fit on 27 July 2022. This indicated both poor workmanship and deficiencies in identification of defects during inspection after POH. It was observed that BBS Coaching Depot did not report the second instance of failure to the workshop authority.

In their reply, MoR stated (October 2024) that in each of the failures, analysis was done by the workshop with inputs from the depots to identify the root cause and take remedial action to prevent recurrence of the same type of failures.

The fact remains that as mentioned earlier, 117 instances were not communicated by the depots as failures within 100 days of POH. Further, out of 114 coaches reported as failed within 100 days due to mechanical and electrical faults, CRW/MCS did not accept 71 failures as the depots concerned did not furnish the detailed report of failure.

Regarding must change items during POH, MoR admitted (October 2024) that instead of must change items, some components might have been allowed in exceptional instances and on technical basis of its condition due to delayed supply of materials and operational urgency.

In respect of Coach No.184681/LWSCN, the Railway Administration stated that new secondary rubber spring was fitted during POH. The records of the workshop however, revealed that second hand secondary rubber spring was fitted during POH.

Thus, CRW/MCS could not analyse all instances of failure of coaches within 100 days of POH due to non-reporting by the depots. Considering the coach earning capacity of ₹ 5422.27 per day, there was loss of earning capacity of ₹ 40.07 lakh on account of 115 coaches[18] that failed within 100 days of POH. There was lapse in reporting of failure of such coaches to the competent authority.

1.9.5 Budgeting for expenditure of the workshop

Indian Railway Finance Code Volume I provides[19] that the preparation of the Budget Estimates (BE) should commence at the grassroot level and the entire responsibility for framing the estimates devolves upon the spending/earning authorities concerned. Estimates should be as accurate as possible, and to achieve this objective, the data on which the forecast is based should be adequate and reliable.

Indian Railway Finance Code Volume I also provides[20] for the preparation of the budget and revised estimates of expenditure on repair and maintenance of Rolling Stock, showing the estimated number of rolling stock proposed for repairs in the current year's budget and

[18] **Data in respect of remaining 16 coaches were not made available to Audit.**

[19] **Para 309 and 310**

[20] **Para 332**

revised estimates and the budget of the ensuing year with corresponding unit cost.

Audit observed that the workshop prepared the budget on the basis of anticipated outturn of the workshop in the next year. It was also observed that the outturn projection for budgeting differed with the projection made by the Coaching Depots and PCME office of Zonal HQ as shown in the following **Table 1.11**:

Table 1.11: Variation of outturn projection by different units

Year	Outturn projection by Coaching Depot (in nos.)	Outturn projection reported to RB by PCME office (in nos.)	Outturn projection for budgeting# (in nos.)	Budget Estimate (₹ in crore)	Actual Expenditure (₹ in crore)
2020-21	1009	1461	1512	281.25	241.5
2021-22	1005	1498	1344	295.10	232.9
2022-23	1099	1411	1441	307.70	255.1
Total	**3113**	**4370**	**4297**	**884.05**	**729.5**

 # By associated Accounts Office in consultation with Dy. CME of CRW/MCS

Source: Records of PCME and accounts office attached to the workshop

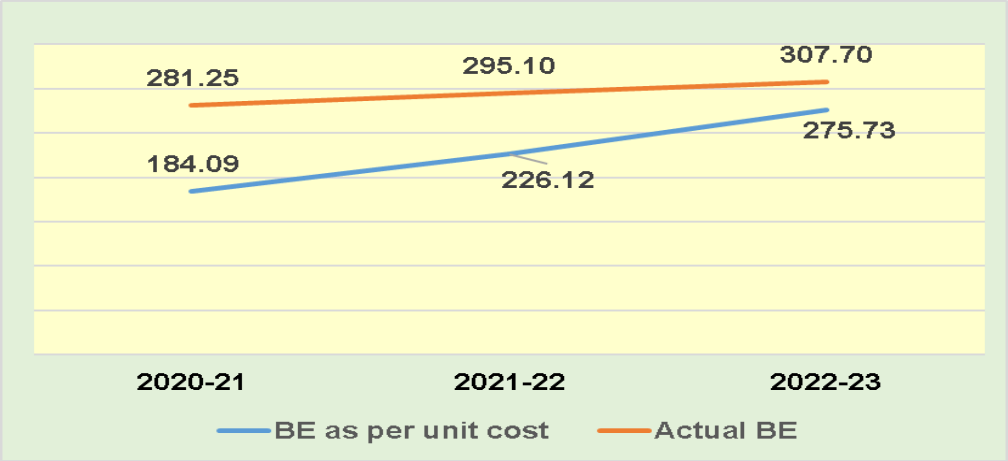
From the table, it may be seen that the BE was not commensurate with the increase or decrease of outturn projection as the unit cost method was not followed for budget formulation.

Audit observed that based on unit cost, the BE for the review period 2020-23 should have been ₹ 685.94 crore[21] as against the BE of ₹ 884.05 crore made by the workshop resulting in excess budgeting of ₹ 198.11 crore (29 *per cent*) in contravention to provisions laid down in Indian Railway Finance Code.

A comparative position of BE made by the workshop with the BE that should have been drawn based on the unit cost method is shown in the following Chart.

[21] **Ref. Chart 1.3**

Chart 1.3: Comparison of BE as per the unit cost and actual BE sought by CRW/MCS (₹ in crore)



Source: Records of Workshop Accounts Office

As against the BE of ₹ 884.05 crore for the years 2020-23, the Actual Expenditure (AE) of the workshop was ₹ 729.50 crore (82.52 *per cent)* during the same period. Further, the actual outturn of the workshop never achieved the projection made at various stages of budget as indicated in the following **Table 1.12**:

Table 1.12: Actual outturn against projection of the workshop

Year	No. of coaches for which budget was sought (Proposed outturn)			Actual outturn of coaches/Percentage with reference to BE
	Budget Estimate (BE)	Revised Estimate	Final Modification Estimate	
2020-21	1512	1058	1058	1030 (-32 *per cent)*
2021-22	1344	1357	1299	1209 (-10 *per cent)*
2022-23	1441	1204	1175	1163 (-19 *per cent)*
Total	**4297**	**3619**	**3532**	**3402 (-21 *per cent)***

Source: Records of PCME and accounts office attached to the workshop

MoR stated (October 2024) that the unit cost of the previous year was the basis of the formulation of the BE of the ensuing year with consideration of factors for hike in labour and material cost. They also stated that the estimated cost worked out to ₹ 227.40 crore for 2020-21, ₹ 225.12 crore for 2021-22 and ₹ 202.46 crore for 2022-23 on the basis of unit cost of ₹ 15.04 lakh, ₹ 16.75 lakh and ₹ 14.05 lakh of the respective year.

Audit, however, observed that CRW/MCS did not assess the BE on the basis of the above unit costs. CRW/MCS sought excess budget ranging from 12-53 *per cent* as shown in the following **Table 1.13:**

Table 1.13: Excess budgeting with reference to unit cost budget

Year	No. of coaches for which BE was made	Total BE sought (₹ in crore)	Unit cost adopted (₹ in lakh)	Unit cost assessed in audit based on data of CRW/MCS (₹ in lakh)	Budget amount should be based on Unit cost assessed in audit (₹ in crore)	Percentage of excess budget sought (Col. 3 &6)
1	2	3	4	5	6	7
2020-21	1512	281.25	18.60	12.175	184.09	53
2021-22	1344	295.10	21.96	16.824	226.12	31
2022-23	1441	307.70	21.35	19.135	275.73	12

Source: Analysis of records of accounts office attached to the workshop

From the above table, it is observed that the BE based on unit cost was much higher than the BE assessed in audit on the basis of data of CRW/MCS. Therefore, the contention of the Ministry that the budget was prepared on the basis of unit cost of previous year was not tenable.

Recommendations -

I. ECoR needs to make realistic projection of coaches for POH based on actual return date of coaches.

II. CRW/MCS needs to ensure POH of coaches within the stipulated period and avoid idling of coaches inside the workshop.

III. ECoR needs to monitor the reporting mechanism of coaching depots to ensure reporting of all instances of coach failures after POH.

IV. CRW/MCS needs to follow the codal provision for budgeting based on unit cost and projection of outturn.

Audit Objective II: Whether the capacity augmentation of the workshop was commensurate to the workload.

1.9.6 Outturn vis-a-vis capacity of the workshop

In response to RB's queries[22] about the capacity of the workshop for fixing of annual target of POH, ECoR intimated the capacity of the workshop as 120 LHB coaches[23] per month for 2020-21,

[22] **Railway Board's letter dated 13/12/2019, 4/1/2021, 15/11/2022 and 2/11/2023.**

[23] **ECoR Letter No. M2/21/Pt-XII/387 dated 23/12/2019.**

125 coaches[24] per month for 2021-22; 89 coaches[25] per month for 2023-24 and 92 coaches[26] per month for 2024-25. Capacity of the workshop for the year 2022-23 was not intimated to RB.

Audit observed that the POH capacity of 100 coaches per month in 2003-04 was enhanced to 150 coaches per month in March 2016. ECoR, however, understated the POH capacity. The low target set by the RB was guided by the incorrect depiction of the POH capacity of the workshop. RB set target for POH of 91 coaches in 2020-21 and 125 coaches in 2021-22 and 99.5 coaches in 2022-23 as against the capacity of workshop for POH of more than 150 coaches per month.

MoR stated (October 2024) that the workload of the workshop had changed drastically over the years and the projection of POH capacity of the workshop was being communicated by ECoR to RB taking into account both the POH and IOH load.

Audit observed that RB instructed (May 2017 and March 2018) all ZRs to carry out IOH/SS-I of coaches in coaching depots instead of workshops. Accordingly, PCME/ECoR also instructed the depots (March 2018) to carry out such repairs in the depots itself. Despite explicit instructions of RB, CRW/MCS carried out IOH of 2906 coaches during 2020-23. The resources utilised for IOH of 2906 coaches would otherwise have resulted in increase in POH outturn by 291 coaches[27].

The projection of the capacity of the workshop between 89 and 125 coaches per month during 2020-24 was less than the actual capacity of 150 coaches per month. The receipt and outturn of the workshop as against the reduced projection of capacity of the workshop is shown in the following **Table1.14:**

Table 1.14: POH outturn vis-a-vis projected capacity of the workshop

Year	Projected capacity (yearly)	Receipt	Outturn
2020-21	1440 (120 coaches per month)	1066	1030
2021-22	1500 (125 coaches per month)	1265	1209
2022-23	1068 (89 coaches per month)	1284	1163
	Total	**3615**	**3402**

Source: Capacity of workshop intimated by ECoR to RB, receipt and outturn data of CRW/MCS.

[24] **ECoR Letter No. M2/218/Pt-IV/17 dated 18/1/2021.**
[25] **ECoR Letter No. M2/21/Pt-XII/333 dated 6/12/2022.**
[26] **ECoR Letter No. M2/21/Pt-XII/389 dated 22/12/2023.**
[27] **One IOH is equivalent to 0.1 of POH. Table 1.4 of Para 1.9.1**

Thus, it was observed that the POH outturn of the workshop was less than the actual receipt and projected capacity of the workshop. Therefore, the drastic change in workload, as contended by the Ministry, was not tenable. Despite under-utilisation of the existing capacity, CRW/MCS continued for further augmentation of the workshop as discussed below.

1.9.6.1 Capacity augmentation of workshop

Para 1041 of Indian Railways Rolling Stock Code provides that expansion of workshop to meet capacity shortfalls should be made with abundant caution. It further provides that before proposing any expansion program, it is to be checked whether the ascending requirement is transient and the demand is likely to get nullified by technological advances.

Para 201 and 204 of Indian Railways Finance Code Volume I provides that the expenditure incurred on new assets or for improvement of existing assets should be financially justified and investment decisions are to be made by keeping long term perspective in mind. It further provides that no proposal for fresh investment will be considered as financially justified unless it can be shown that the net gain expected to be realised as a result of the proposed outgo would yield a return of not less than 10 *per cent* under Discounted Cash Flow (DCF) method[28].

CRW/MCS augmented (March 2016) the POH capacity of the workshop for outturn of 150 coaches per month at an estimated cost of ₹ 38.62 crore (₹ 25.8 crore for ICF coaches and ₹ 12.82 crore for LHB coaches). The augmentation work was justified with 17.61 *per cent* Rate of Return (ROR) projecting that additional overhauling of 60 coaches per month would result in net saving of ₹ 11.55 crore per year.

Audit observed that despite having infrastructure for 150 coaches, the outturn of the workshop ranged between 97 and 113 coaches per month during 2016-17 to 2022-23. Under-utilisation of plant capacity had adverse impact on the projected ROR and the same could not be brought out in absence of post-project appraisal by CRW/MCS.

CRW/MCS had further undertaken following six more major works valuing ₹ 181.78 crore for creating additional infrastructure for

[28] **Discounted Cash Flow (DCF) is a valuation method that estimates the value of an investment using its expected future cash flows. It determines the value of an investment today, based on projections of how much money that investment will generate in the future.**

enhancement of capacity of the workshop during the period from 2018-19 to 2022-23 as shown in the following **Table 1.15**.

Table 1.15: Statement of major infrastructural projects of CRW/MCS

Sl. No.	Name of Work	Year of sanction	Sanctioned cost (₹ in crore)	Progress as of December 2023
1.	Development of infrastructure facilities for maintenance of LHB bogie with allied works	2018-19	13.65	Completed
2.	Improvement in infrastructure facilities for maintenance of LHB coaches	2018-19	21.52	Completed
3.	Automation in work area for enhancement of POH capacity	2019-20	26.80	No progress
4.	Improvement, augmentation & replacement of old infrastructure for enhancement of POH of LHB coaches	2019-20	47.78	30 *per cent* progress
5.	Construction of POH shop for MEMU coaches, PHASE-1	2020-21	52.03	No progress
6.	Infrastructure development for reduction in periodic overhauling cycle time of Rolling Stock Workshops	2022-23	20.00	No progress

Source: Indian Railway Project Sanctions and Management (IRPSM).

Audit observed that –

I. Infrastructure worth ₹ 38.62 crore (₹ 25.80 crore for ICF and ₹ 12.82 crore for LHB coaches) was already developed in March 2016 during capacity augmentation from 100 to 150 coaches. In 2018-19, CRW undertook three infrastructural projects (Sl. No. 1,2 and 4) worth ₹ 82.95 crore for overhauling of LHB coaches which included 53.89 crore (65 *per cent*) for creation civil engineering assets like administrative buildings, tracks, covered sheds *etc*. In the justification for these new works of LHB coaches, it was mentioned that the workshop had capacity to overhaul 150 ICF coaches and with ICF being phased out, there was requirement of LHB infrastructure. The justification did not spell out the factual position as infrastructure worth ₹ 12.82 crore was created by March 2016 for overhauling of LHB coaches during capacity augmentation from 100 to 150 coaches.

In reply to the audit query (December 2023), the workshop authority admitted (January 2024) that most of the existing infrastructure and machinery were used both for ICF and LHB coaches. The scope for utilisation of the existing machinery was not however, brought out in the justification for the proposal for new works.

II. In respect of works at Sl. No. 3, 5 and 6, there was no progress as of March 2023, due to delay in sanction of detailed estimate (15 to 48 months), change of executing agency and for delay in floating/awarding of tender (19 to 21 months).

MoR replied (October 2024) that the work for augmentation of POH capacity from 100 to 150 ICF coaches per month, sanctioned in 2008-2009 at a cost of ₹ 25 crore (subsequently revised to ₹ 38.62 crore) was completed in March 2016. After completion of the work, the augmented POH capacity of the workshop was for 150 ICF coaches. It was further stated that the workload of the POH workshops had changed drastically and the planning of future workshop infrastructure requirements, as per present policy guidelines and availability of coaches, was being done consistently.

Audit, however, noticed that in addition to ICF coaches, capacity for POH of LHB coaches was also provisioned in the augmentation work of 150 coaches due to which the estimated cost was revised from ₹ 25 crore to ₹ 38.62 crore. Thereafter, ECoR executed further infrastructure works for maintenance of LHB coaches worth ₹ 21.52 crore and LHB bogies worth ₹ 13.65 crore (Sl. No. 1 and 2 of Table 1.15). Despite infrastructure development for POH of LHB coaches, ECoR understated the POH capacity of the workshop ranging from 125 to 89 coaches per month while intimating the same to the RB. It was not logical to depict POH capacity of the workshop on a decreasing trend over the years when the actual POH capacity of the workshop after execution of additional infrastructural works has not been assessed.

Thus, despite having infrastructure for POH of 150 coaches per month, which was not fully utilised, CRW/MCS continued for further augmentation of capacity by creating additional infrastructure which was not supported by adequate justification.

Recommendation:

ECoR should re-assess the POH capacity of the workshop for various types of coaches in light of the existing capacity and ongoing augmentation works.

Audit Objective III- Whether management of machinery and stores was as per norms.

1.9.7 Machinery and stores management

1.9.7.1 Idling of Plant and Machinery

In May 2006, RB issued guidelines for procurement of Plant & Machinery (M&P) and timely commissioning of M&P. The guidelines inter alia prescribe that –

- Eighty *per cent* of payment may be made on proof of inspection certificate and challan and balance 20 *per cent* within 90 days after satisfactory installation, commissioning and proving out test of M&P subject to submission of bank guarantee for an amount of 10 *per cent* of contract value, as warranty security.
- Warranty period for M&P is 24 months from date of commissioning and during warranty a maximum period of two weeks is allowed for attending and rectification of fault by the party. Maximum downtime during the warranty period would be two *per cent* (for online M&P) and10 *per cent* (for offline M&P).
- Penalty of 0.5 *per cent* of the contract value per week is levied for delay in response time for attending during the warranty period subject to maximum five *per cent* of the contract value.
- Bad performance of the firm should be recorded and circulated to all zones for deciding future orders on the firm. Tenderers are required to quote post warranty annual maintenance for a period of five years along with their offers and charges for such annual preventive maintenance would be included in the contract. Terms and conditions of Annual Maintenance Contract (AMC) must clearly specify the maximum down time and maximum response time.

In September 1999, RB instructed that M&P items repeatedly failing and causing concern be identified by the approving authority and the specifications and sources be revalidated. It was also instructed to report failures of M&P to authorities responsible for issue of list of approved vendors for appropriate action.

Review of the functioning of machineries in CRW/MCS as of December 2023 revealed that four high value machines worth ₹ 4.15 crore were lying out of order for years for want of repair as mentioned in the following **Table 1.16**:

Table 1.16: Statement showing the status of non-functional machines

Sl. No.	Name of the machine	Cost of machine	Date of commissioning	Period of breakdown of the machine	Codal life in years	Percentage of remaining codal life as of December 2023
1	Hydraulic plate bending and rolling machine (on replacement account)	₹ 2.34 crore	16/6/2012	for 9 years since 15/1/2014	20	45 *per cent*
2	Vertical Turret lathe	₹ 92.09 lakh	27/11/2008	1798 days (4.9 years) in 53 spells since 8/1/2013	20	24.5 *per cent*
3	Horizontal Drilling Tapping machine	₹ 74.38 lakh	19/11/2011	2630 days (7.2 years) in nine spells since 15/12/2011	20	36 *per cent*
4	Coil Spring Scragging & Load Deflection testing machine	₹ 14.81 lakh	8/9/2014	2869 days i.e 7.86 years, in 24 spells since 13/9/2014	15	52.4 *per cent*

Source: Machineries procurement file (M&P Program) and machineries breakdown register of CRW/MCS.

Audit observed that the workshop authority failed in adhering to the prescribed guidelines for procurement, commissioning, repair and maintenance of machinery as detailed in the following paragraphs:

A. Hydraulic plate bending and rolling machine

The machine was commissioned in June 2012 despite having inherent defects like “Main roller diameter more than the required inner diameter, higher center distance between rollers, failure of lower side wall and lower spring due to oversized rollers, *etc*.” CRW/MCS, however, issued the Proving Test Certificate (PTC) in May 2013 ignoring these defects. As a result, the machine met with frequent breakdowns and finally stopped functioning from January 2014 onwards. The firm attended the machine twice in October 2014

and July 2015 but could not repair it. Thereafter, the firm did not respond and the machine remained idle since January 2014.

Audit observed that this machine was procured on replacement of the old machine which was proposed for condemnation (September 2008) due to expiry of its codal life. The workshop authority, however, continued managing activities with the old machine (installed in 1983) as the intended benefit could not be derived from the new machine due to unsuitable specification.

MoR stated (October 2024) that PTC was issued after the compliance of deficiencies noticed at the time of commissioning of the machine.

Audit however, observed that the reply of MoR did not mention the inherent defects pointed out in the Joint Performance Report (November 2014) which included (i) over-sized rollers as well as 4 Roller system led to Lower side wall part failure, (ii) Supporting system of the roller hindering to provide support required before applying bending force, (iii) In the Ring for lower spring seat "Main Roller diameter is more than the required inner dia". SSE/Millwright & Smithy stated (September 2023) that machine could not be used due to its higher capacity and much larger roller diameter. Tripartite inspection of COFMOW, firm and the consignee in July 2015 also recorded that the size of the indicated job piece was too small to accommodate in between rollers because of higher center distance between the rollers. Workshop authority failed in identifying the inherent defects before commissioning of the machine and issue of PTC. As a result, there was frequent breakdowns of the machine and finally stopped functioning from January 2014 onwards.

B. Vertical turret lathe

The machine was delivered on 10 February 2006 but commissioned in Wheel Shop on 27 November 2008 due to non-completion of foundation

work by the firm's representative. The commissioning was done despite noticing some major manufacturing defects like "non-drawal of 15 wheels set in mandated 8 hours" and "Non-achievement of desired surface finish of 1.6 micron Ra of the wheel hub bore". PTC was issued in March 2009 ignoring these defects. The machine remained out of order since September 2019.

MoR stated (October 2024) that PTC was issued after the firm rectified the defects. It was also stated that the machine was being processed for repair through outside agency.

Audit observed that the commissioning was hindered due to non-compliance to machine specifications such as non-achievement of the required productivity of 15 solid wheels in 08 hours shift and the desired level of accuracy surface finish of 1.6 Microns Ra. Audit also observed that the machine was commissioned without Pillar crane for material handling.

C. Horizontal drilling and tapping machine

The machine was commissioned in November 2011 despite noticing some major manufacturing defects like "Higher cycle time of turning out one axle (61 minutes) against the mandated 54 minutes as per contract condition" and "non-provision of automatic lubrication system at all locations". There were several instances of breakdown since commissioning of the machine. Despite frequent breakdowns since December 2011, PTC was issued in June 2012 ignoring these defects. 12 instances of breakdowns were noticed between April 2012 and December 2018. The machine remained idle due to complete breakdown since December 2018.

MoR replied (October 2024) that PTC was issued in June 2012 with mention of the deficit/shortfall.

Audit observed that the machine was commissioned despite noticing the following serious defects (i) cycle time for one axle including loading and unloading took 61 minutes against the mandated cycle time of 54 minutes, (ii) automatic lubrication was not provided in self-centering chuck for job and telescopic cover for bed which was mandated in Accepted Tender (AT) clauses 8.1, 8.4 & 8.5 of COFMOW which stated that "Manual lubrication is not needed as automatic lubrication has been provided".

Further, as per the joint note for performance of CRW/MCS (14 February 2012) the machine was under breakdown from 3 April 2012 onwards due to various reasons like drive enable switch not working and power switch not working and defective ball screw with nut. Despite having those defects, the PTC was issued with the remark that "this issue of PTC proves only the technical acceptability and functioning of the machine on the date of issue of this certificate" and the inherent defects led to subsequent breakdown of the machine.

D. Coil spring scragging & Load deflection testing machine

The machine was commissioned in Bogie Repair Shop in September 2014. Soon after commissioning, some defects were noticed (October 2014). Since then, there were several instances of breakdown of the machine. Conditional PTC was issued in June 2016 despite noticing various defects like (i) Input of computer command was not being accepted by the machine (ii) RAM was creating unusual sound while working up and down (iii) RAM upper plate gradually bending and RAM Load Shell Plate always moving (iv) RAM speed automatically increasing and decreasing (v) Leakage of oil from hydraulic tank (vi) Reading of spring in first test and reading of the same spring in next test is showing different heights (vii) During testing, free height and final height of some springs was indicating negative (-11.995) reading (viii) RAM limit not getting cut off in selected load in the machine. The PTC was issued indicating all the defects, recommending withholding of 20 per cent pending bill and blacklisting the firm.

In their reply (October 2024), MoR admitted that the machine broke down in October 2014 soon after commissioning in September 2014. They further stated that though the firm rectified the defect in April 2015, the machine again faced breakdown from June 2015 onwards. They also stated that provisional PTC was issued in June 2016 indicating all the defects and withholding of 20 *per cent* pending bills.

In this connection, it is stated that the breakdown of machine within one month of its commissioning was indicative of lapses on the part of the

workshop authority in proper verification of the machine. CWM/MCS intimated the supplier (19 September 2016) that the machine was showing poor performance due to defects as mentioned above. Despite having these defects, conditional PTC was issued for the machine which was non-functional since its commissioning.

Thus, though the defects of the above four machines were noticed at receipt and commissioning stage, CRW/MCS authorities accepted and commissioned them. As a result, these machines had been lying unused for a period ranging from five to nine years.

Further, as per RB's instructions (May 2006), provisions for post warranty annual maintenance for a period of five years and cost of essential spares and service charges for each item of work of repair of M&P were to be incorporated in the tender schedule for procurement of M&P. It was observed that the above guidelines of RB were not adhered to. Despite several reminders from the CRW/MCS about the defective machines, the suppliers did not repair the machines. Penalty at five *per cent* of the contract value of the four machines amounting ₹ 20.75 lakh was recoverable for the warranty defaults which was, however, not levied by CRW/MCS.

Thus, CRW/MCS failed in ensuring technical acceptability and functioning of the machines before issue of PTC. As a result, despite protracted pursuance with the firms concerned, the machines could not be rectified and made functional.

Recommendation: CRW/MCS needs to strengthen checks and monitoring mechanisms to ensure receipt of machinery of desired specification.

1.9.7.2 Procurement of stores

Indian Railways Rolling Stock Code prescribes[29] that stock items regularly used in the workshop are stocked in the store depot while non-stock items are indented as and when required.

For procurement of materials for the workshop, the user departments annually submit the Expected Annual Consumptions (EAC) of various types of materials to the Dy. Chief Material Manager (Dy. CMM) of CRW/MCS, who in turn consolidates the list and sends consignee-wise projections to the PCMM office at Zonal HQ for procurement of stores. Dy. CMM/CRW/MCS procures the non-stock items for the user

[29] **Para 501 of the IR Rolling Stock Code.**

departments/shops and borrows stock items from stores of nearby ZR through book adjustment to meet the requirements of the consignees. The procurement and supply of stores to the users are maintained in the Material Management Information System (MMIS) portal.

ABC analysis of materials[30] revealed that as on 31 March 2023, there were 87 types of A-category materials (61 Mechanical and 26 Electrical items), 162 B-category materials (122 Mechanical and 40 Electrical items) and 902- C and D category items (470 Mechanical, 193 Electrical and 239 other items).

Out of 3123 Purchase Orders (POs) issued by the Dy. CMM/MCS during 2020-21 to 2022-23, a sample of 78 stock and 59 non-stock POs of money value of more than ₹ 10 lakhs was selected for test check to examine the timeliness in procurement of materials. These 137 POs covered procurement of 411 stock and 66 non-stock items.

Audit observed that -

- Out of total PO value of ₹ 23.04 crore for procurement of stock items, materials worth ₹ 11.81 crore (51 *per cent*) were received. POs for procurement of materials worth ₹ 2.21 crore were neither received nor cancelled, and POs were shown as pending even after the expiry of the delivery period. The remaining POs worth ₹ 9.02 crore (39 *per cent*) were cancelled, out of which materials worth ₹ 8.69 crore (96 *per cent*) were to be procured from other zones through book adjustment.
- The reasons for cancellation of 107 POs worth ₹ 9.02 crore were (i) materials not spared by the zones concerned in case of 65 items worth ₹ 2.38 crore and (ii) materials not required in case of 32 items worth ₹ 5.33 crore. For the ten cancelled POs worth ₹ 1.31 crore, the reasons for cancellation were not mentioned. The POs cancelled were not retendered except for one PO valuing ₹ 12.60 lakh.
- In case of procurement of stock items, time taken from the date of indent to the issue of PO was upto 28 days (average 1.3 days) and the time taken from the indent date to material receipt date was in the range of 3 days to 146 days (average of 19 days).

---

[30] **All high consumption value items which represent 70 *per cent* of total annual usage value are classified as "A" category, items which represent 20 *per cent* of total usage value are classified as "B" category and all remaining items representing 10 *per cent* consumption value are grouped in "C" & "D" category.**

- Fifty-one non-stock POs worth ₹ 2.71 crore were issued for procurement of 36 stock items by CRW/MCS.
- Out of the total non-stock PO value of ₹ 16.94 crore materials worth ₹ 14.71 crore (87 *per cent*) were received. POs for procurement of materials worth ₹ 1.32 crore were cancelled and remaining POs valued ₹ 0.91 crore were not cancelled even though the material was not received after the scheduled delivery period.
- For procurement of non-stock items, 59 POs were issued. There was delay ranging from 11 to 1113 days (average delay was 179 days) in issue of POs. Out of 59 POs, in 15 cases, delay in issue of POs was more than six months and in 49 cases, time taken from indent to receipt of material was 31 to 1382 days (average delay was 271 days). The delay in procurement of stores is shown in the following **Table 1.17**.

Table 1.17: Delay in procurement of non-stock items in CRW/MCS

Range of time taken from indent date	Number of Non-stock POs	
	Indent date to PO date	Indent date to receipt of material
Within 1 month	1	0
1 month to 3 months	21	4
3 months to 6 months	22	16
More than 6 months	15 (25 *per cent*)	29 + 10 POs [31] (66 *per cent*)
Total	**59**	**59**

Source: Data analysis of MMIS

Regarding delay in procurement of non-stock items, MoR replied (October 2024) that in between generation of non-stock indents and submission to the Stores Department, a lot of activities are involved like approval of competent authority, fund certification, accounts observations and technical clarifications *etc*., which in rare cases may take some extra time.

Audit however, observed that the cases involving average delay of six months and maximum delay exceeding three years in issue of POs could not be considered as rare occurrence in the workshop. The inordinate delay in administrative approvals, fund certification for issue of POs against the indents defeated the purpose of procurement of non-stock material which is indented as and when required. In this connection, the findings of the following case study are highlighted by way of illustration:

[31] **material was not received in 10 Pos till March 2023.**

AC shop of CRW/MCS had indented for two numbers of '25 KVA underslung Inverter' worth ₹ 7.76 lakh for coach No. 958070 through non-stock Demand No. 0977550034/20 dated 30 June 2020. The coach came to the workshop on 7 February 2020 and its outturn date was 11 September 2020. After more than four months of the coach outturn and seven months after the indent date, the Stores Department issued PO No. 92205227100067 on 18 January 2021 for procurement of that material at a higher value of ₹ 10.62 lakh. The material was supplied after 433 days from the indent date on 31 July 2021.

MoR stated (October 2024) that the requirement of *'25 KVA underslung Inverter'* was met from the existing stock and later on, the same item was procured as 'non-stock' item after getting required fund from the consignee.

The reply of the Ministry was generic and did not address the specific audit observations. In this connection, reference is drawn to Para 504 of IR Rolling Stock Code which provides that non-stock items, which are regularly procured, should be converted to stock to avoid multiple and wasteful procurement. Thus, procurement of stock item through 'non-stock' purchase order after the coach was turned out was irregular.

1.9.7.3 Availability of stores

To examine the availability of materials in CRW/MCS, a sample of 123 stock items was selected, covering 20 *per cent* of A category and 10 *per cent* of other categories of stock materials for which Dy. CMM/CRW/MCS prepared Anticipated Annual Consumption (AAC). Audit observed that -

- In 63 stock items, availability of stores[32] was less than the AAC and the user units repeatedly complained about non-availability of materials in 20 stock items as shown in ***Annexure- 1.2.*** The range of shortfall in availability of stores is shown in the following **Table 1.18.**

[32] **Opening balance plus procurement during the year.**

Table 1.18: Shortfall in availability of stores

Range of shortfall	No. of stock items
Less than 25 *per cent*	33
25 *per cent to* 50 *per cent*	18
50 *per cent to 7*5 *per cent*	7
More than 75 *per cent*	5
Total	**63**

Source: Analysis of data from MMIS

- In nine out of 19 vital/safety/must-change items, availability of stores was less than the AAC and the shortfall ranged between 11 and 50 *per cent.* Out of the nine items, though POs were issued in respect of eight items, the PO quantities were less than the AAC as shown in ***Annexure- 1.3***.

During the exit conference, the Dy. CMM/MCS stated (May 2024) that the delay in procurement of materials was due to delay in sending indent in many cases.

MoR stated (October 2024) that procurement was made on the basis of six month's requirement to avoid wastage of money. The Ministry admitted that consignees had drawn in some cases in excess of their projection as the situation of ICF coach usage turned out different from the anticipation.

Audit however, observed that the availability of material less than the AAC had resulted in shortage of stocks and the user units repeatedly complained about non-availability of materials. The reply of the MoR was silent on the less procurement of vital/safety/must-change items. Less procurement of vital/safety/must-change items was a serious lapse which resulted in use of second-hand materials in place of must-change items and resultant failure of coaches within 100 days of POH as discussed in Para 1.9.4.1.

Thus, the material management in CRW/MCS did not ensure availability of materials to the users. There was inordinate delay in procurement of materials against the non-stock indents. In case of stock items also, materials were not procured as per the AAC leading to shortage of materials.

Recommendation: CRW/MCS needs to improve the inventory management system to ensure availability of stores as per requirement.

1.9.7.4 Turn Over Ratio

Turn Over Ratio (TOR) measures the efficiency of inventory management. It is the ratio of year-end balance of stores held in stock to total issues made during the year. High TOR denotes lesser issues and/or more receipts (in comparison to anticipated figures) during the year, thereby increasing the value of closing balance of inventory at the end of the year. Since the closing balance of inventory is linked to the blocking up of capital, the level of TOR should be kept to the minimum possible. CRW/MCS has not determined the TOR ratio. The desired level of TOR being followed in ICF/ Chennai is 12 *per cent.*

Audit observed that the TOR of the workshop during 2020-23 was in the range of 38.26 *per cent* to 13.04 *per cent* as indicated in the following **Table 1.19**:

Table 1.19: Inventory position of CRW/MCS

Year	Opening Balance (₹ in crore)	Receipts (₹ in crore)	Issues (₹ in crore)	Closing Balance (₹ in crore)	TOR (in *per cent)*
2020-21	33.31	84.72	85.37	32.66	38.26
2021-22	32.66	93.80	99.38	27.08	27.25
2022-23	27.08	122.86	132.64	17.30	13.04

Source: Data from Material Management Information System

From the table, it may be observed that during the years 2020-23, the TOR of the workshop was above the desired level of TOR.

MoR replied (October 2024) that the TOR of CRW/MCS is generally between 20 to 25 *per cent* but it was high due to Covid pandemic.

ECoR needs to devise a desired level of TOR to monitor efficiency of inventory management.

Audit Objective IV: Whether the monitoring and internal control mechanism were functioning as per established frameworks and instruction.

For planning the repair and maintenance of carriages in CRW/MCS, monthly meetings are conducted by the DyCME of the workshop with the representatives of four coaching depots of ECoR and stores department. Issues discussed in the meetings, *inter alia*, include crisis coaches needing quicker attention, coaches identified by the depots for POH in the subsequent month, coach feeding programme of the depots and outturn planning.

Audit, however, observed deficiencies in maintenance of records for correct assessment of coach holding status for projection of POH arising and setting of targets by the RB, as variations were seen in coach holding data among different sources as detailed in Para 1.9.2. Delay in procurement of stores as mentioned in Para 1.9.7.2, particularly, non-stock items which are procured as and when required, indicate the scope for improvement in monitoring. Due to weaknesses in monitoring and internal controls, there was inordinate delay in overhauling of coaches and also failure of coaches within 100 days of POH as indicated in Paras 1.9.4 & 1.9.4.1.

1.9.8 Monitoring through Workshop Information System (WISE)

Mancheswar Workshop implemented “Workshop Information System” (WISE) in October 2019. In October 2021, CRW/MCS intimated GM/CRIS/New Delhi that 44 out of the 51 modules of WISE had been fully implemented and one module related to warranty claim was under implementation. The remaining six modules were not applicable to the workshop as they were related to production activities (five modules) and incentive scheme (one module).

Para 808 of the Indian Railways Rolling Stock Code prescribes that 100 *per cent* implementation and operationalisation of WISE modules is to be ensured by ZR HQs/CWMs of workshops. All important parameters of workshops, such as outturn, cycle time, Rolling Stock holding, *etc*., should be accessed by the ZR HQs/RB through WISE only and the data retrieved through WISE would be considered as authentic data for workshops. WISE is the primary MIS tool for the RB and higher management for decision-making.

Test check of 447 samples of coaches revealed that there was mismatch between WISE and manual records in respect of entry ('workshop-in") and exit dates (Workshop Traffic-out) of coaches from the workshop as discussed below:

I. In respect of 50 coaches, the 'workshop-in" date as per WISE was different from the actual "workshop-in" date mentioned in the outturn register, and the mismatch between WISE and the register of the Corrosion Shop ranged from 1 to 291 days in 23 coaches. Further, although these coaches were inside the workshop (for 2019 coach days) for POH, they were not taken into the WISE application as indicated in the following **Table 1.20**.

Table 1.20: Mismatch of Workshop-In WISE data with manual records

Year	No. of corrosion repaired coaches	No. of coaches where 'Workshop-In' date in WISE was same as outturn register	No. of coaches where there was mismatch in WS-IN dates	Mismatch range	No. of coach days not shown in WISE although coach was inside workshop
2020-21	26 out of 161	23	3	15 days to 291 days	480 days
2021-22	10 out of 166	4	6	1 day to 177 days	338 days
2022-23	14 out of 120	0	14	24 days to 289 days	1201 days
Total	**50 out of 447**	**27**	**23**	**1 day to 291 days**	**2019 days**

Source: Data from WISE application and outturn register of corrosion

Regarding mismatch of WISE data and manual records, Workshop Administration replied (February 2024) that all coaches received at workshop were not attended immediately. It was also stated that only those coaches were given priority and fed into WISE immediately which required POH attention. MoR also admitted (October 2024) that there was mismatch.

The contention of the Workshop authority/MoR indicated that although various types of coaches were received in the workshop, all coaches were not fed into WISE and priority was assigned to some selected coaches and fed into WISE. In response to audit query, Workshop authority stated (February 2024) that the coaches fed into WISE are to be trafficked out.

From the Table 1.20, it is observed that 2019 coach days were not shown in WISE although coaches were inside the workshop. This depicted incorrect holding of rolling stock in the workshop and thus violated the provisions of Para 808 of the Indian Railways Rolling Stock Code that WISE data would be considered as authentic for managerial decision making.

II. In respect of 90 coaches, "Workshop Traffic-out" dates as per WISE were different from the actual "Workshop Traffic-out dates". Further, although these coaches were inside the workshop after POH, those were not taken into the WISE application, as mentioned in the following **Table 1.21**:

Table 1.21: Mismatch of traffic out time between WISE and manual records

Year	No. of coaches	No. of mismatch	Mismatch range	No. of coach days
2020-21	162	4	1 day to 2 days	6 days
2021-22	165	9	1 day to 13 days	27 days
2022-23	120	77	1 day to 14 days	174 days
Total	**447**	**90**	**1 day to 14 days**	**207 days**

Source: Data from WISE application and Coach handing over notes of CMS/CRW/MCS

The Workshop Administration stated (February 2024) that dispatch of coaches out of the workshop was sometimes delayed due to taking up further repair and rectification of detected defects in the pit line.

In this connection, it is stated that after fitness by the Neutral Train Examiner (NTXR[33]), the Workshop cannot perform any maintenance-related activity for that rolling stock. The coaches lying inside the workshop should not be shown as "Traffic out" in WISE for presenting better performance of the workshop.

III. As per the maintenance manual of coaches (LHB and ICF), the exterior painting of coaches involves direct acts like washing with suitable detergent (one day), application of putty (one day), rubbing down putty and application of surfacer (one day), window masking, roof painting, end painting and painting of side panels leaving down-side area (one day), masking of upper area and downside painting (one day), removal of masks, touch up, lettering, cleaning and other works (one day), and parallel act of interior painting for two days. Thus, the painting work should take at least five to six days.

Audit observed that as per the WISE data, 134 coaches were painted in one day and 400 other coaches were painted in two days which were indicative of data inconsistency in WISE application.

The reply of MoR (October 2024) was silent on the issue of data inconsistency in WISE application.

1.9.9 Quality checks after overhauling through NCO

A Neutral Control Organisation (NCO) was established under IRCA to prescribe common standards for Rolling stock maintenance.

[33] **NTXR is the personnel of Neutral Control Organisation (NCO) entrusted with the quality checks of coaches after completion of POH**

Maintenance standards prescribed in IRCA Conference Rules, Part III and IV, respectively, are in force across Indian Railways. NCO was entrusted with examination, impartial and objective reports, and independent quality control checks in the workshop. Review of the working of the NCO revealed that –

I. During 2020-21 to 2022-23, 43 coaches failed within 100 days of their POH for reasons attributable to Bogie Repair Shop. Out of that, 17 LHB coaches were declared fit by NCO despite noticing defects like CBC[34] jam, sensor cable not fitted, UIC[35] rubber broken both ends *etc*. In the inspection sheet, NCO recorded the defects. However, while issuing 'Fit Memo' on the same day of inspection, clearance was given without assigning reasons thereof. Thus, proper quality inspection of overhauled coaches was not ensured in CRW/MCS.

II. NCO carries out the final inspection of overhauled coaches based on a check sheet which varies across different ZRs. Further, no standard/benchmark timing was fixed for the final inspection of overhauled coaches (separately for LHB and ICF coaches) by the NCO.

MoR in their reply (October 2024) admitted that standard/benchmark timing was not fixed for the final inspection of overhauled coaches. The reply was however, silent in respect of coaches being declared fit despite noticing defects.

Recommendations:

CRW/MCS needs to –

I. Maintain absolute transparency in feeding concurrent and correct data to make WISE a reliable application for decision-making.

II. Ensure that proper checks are in place for the quality of POH repairs.

1.10 Conclusion

Railway Board instructed to exercise due care while projecting POH arising. The initial projection of CRW/MCS was, however, revised downward every year. CRW/MCS could not achieve RB target. Despite

[34] *CBC* (Centre buffer coupler) is a device for connecting one coach with another

[35] UIC type rubber is a component of coach vestibules.

enhancement of its POH capacity to 150 coaches per month in 2016, further capacity augmentation works worth ₹ 181.78 crore was taken up during 2018-19 to 2022-23 without assessing the compatibility of existing infrastructure and a realistic requirement in future. POH capacity of the workshop was understated while reporting to RB.

There was inordinate delay in sending of coaches for POH by the depots. Audit observed that the time taken by the workshop in carrying out POH of coaches was up to three years as against the prescribed cycle days of 15 to 20 days. There were instances of failure of coaches within 100 days of POH and some of them were not reported to the competent authorities by the depots.

Audit also observed that the budgeting of the workshop was not based on the unit cost and in commensurate with the projection for POH of coaches leading to excess budgeting. Coach holding database was not uniform among the various units of ECoR.

Four high-value machines worth ₹ 4.15 crore had been lying idle for years due to inherent defects of the machines. Availability of material less than the AAC had resulted in shortage of stocks and the user units repeatedly complained about non-availability of materials. Shortfall in procurement of vital/safety/must-change items was a serious lapse which resulted in use of second-hand materials in place of must-change items and resultant failure of coaches within 100 days of POH.

The monitoring of POH activities through WISE application was not effective. There were several instances of mismatch of data between WISE and manual records. All coaches received in the workshop were not fed into WISE instantly and priority was assigned to some selected coaches. Deficiency in checks and quality control was observed as coaches were declared fit despite noticing defect.

1.11 Summary of recommendations

CRW/MCS needs to –

- ***Ensure realistic projection of coaches for POH based on actual return date of coaches and ensure timely supply of coaches to the workshop for POH.***
- ***Follow the codal provision for budgeting based on unit cost and projection of outturn.***
- ***Ensure POH of coaches within the stipulated time and avoid idling of coaches inside the workshop.***

- ***Monitor the reporting mechanism of coaching depots to ensure reporting of all instances of coach failures after POH.***
- ***Re-assess the POH capacity of the workshop for various types of coaches in light of the existing capacity and ongoing augmentation works.***
- ***Strengthen checks and monitoring mechanisms to ensure receipt of machinery of desired specification.***
- ***Improve inventory management system to ensure availability of stores as per requirement.***
- ***Maintain absolute transparency in feeding concurrent and correct data to make WISE a reliable application for decision-making.***
- ***Ensure that proper checks are in place for the quality of POH repairs.***

Chapter II-

Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

Construction of 5th and 6th line between Chhatrapati Shivaji Maharaj Terminus (CSMT)-Kurla Station

2.1 Introduction

The Suburban Railway System of Mumbai is the life-line of the city. Central Railway (CR) Suburban network caters to 3 million commuters every day. Overcrowding in Mumbai local trains has grown to such an extent that against the rated carrying capacity of 2400 passengers, more than 6,000 passengers travel in a 12 car train during peak hours. This results in what is known as peak time super dense crush load of up to 16 standing passengers per square meter of floor space. Accidental deaths due to falling from local trains ranged from 94 to 401 per year with an average of 275 deaths per year during the period 2014 to 2023 (up to August 2023)[36]. In addition, the number of people injured due to falling from trains during the above period ranged from 162 to 766 per year.

2.2 Background

Mumbai Suburban section of CR from Chhatrapati Shivaji Terminus Mumbai (now renamed as Chhatrapati Shivaji Maharaj Terminus[37] (CSMT)) to North of Kurla[38] has two corridors, each corridor having two lines for UP and DN directions. West side corridor consists of two local lines for stopping of local trains at all stations. East side corridor consists of two through lines and is known as fast corridor where suburban trains stop at selected stations. This corridor is also being utilised for running long distance non-suburban passenger and freight trains. The CSMT-Dadar-Kurla section is a highly saturated section and the traffic demand in this section has been increasing steadily. It is, therefore, necessary to segregate non-suburban traffic from suburban traffic to increase the peak hour capacity of the suburban section.

Railways also felt the need to segregate the long-distance traffic from suburban traffic between Thane and CSMT as well as to improve the suburban services on CR. With the purpose of meeting the demands of the ever-growing passenger traffic, Ministry of Railways (MoR) and the Government of Maharashtra (GoM) joined hands through Mumbai

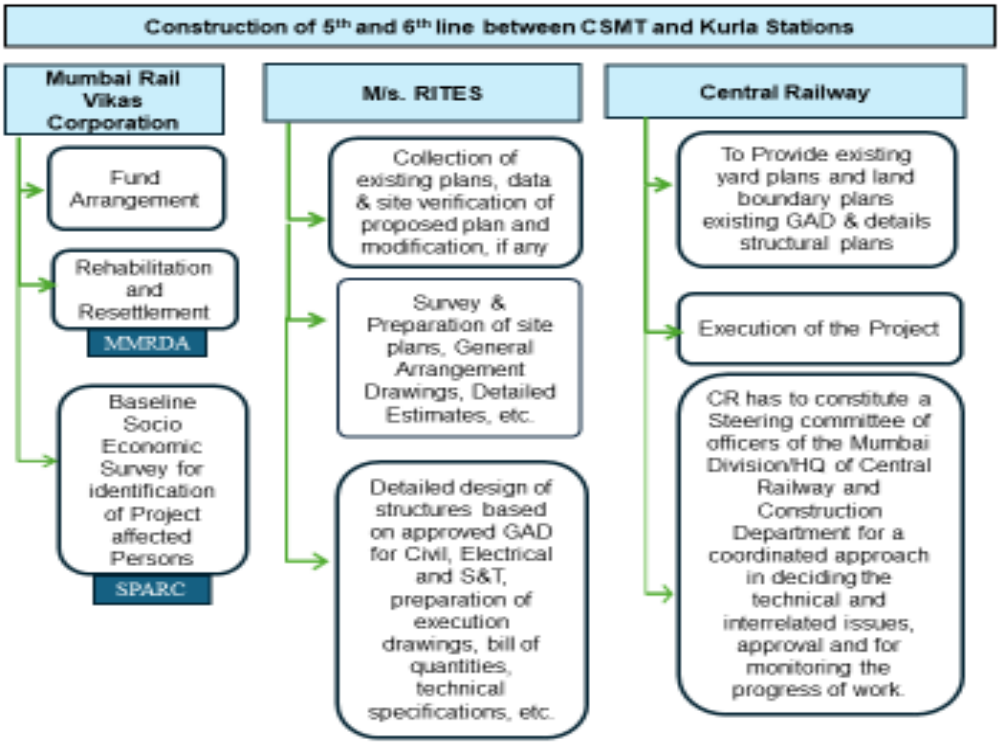
[36] **As informed by Government Railway Police in September 2023.**

[37] **(Km. 0.00)**

[38] **(Km. 17.390)**

Railway Vikas Corporation Limited (MRVC)[39]. The work of construction of 5th and 6th line between CSMT-Kurla section[40] under Mumbai Urban Transport Project –II (MUTP) project of MRVC was sanctioned at a total cost of ₹ 659 crore in the Pink Book 2009-10. MRVC awarded the consultancy service contract with a completion period of 30 months to M/s. RITES in June 2009 for survey, preparation of site plans, yard plans, General Arrangement Drawings, Detailed Estimate, Bill of Quantity, detailed design/drawings, land acquisition plans, computation of additional land width required, *etc*. for Civil, Electrical and S&T works in connection with Detailed Engineering work.

The detailed role and responsibility to execute the work was assigned to different authorities/agencies as shown in the flow chart below:



Source: ***(i) M/s. RITES agreement dated 15 September 2009.***
(ii) MRVC's letter No. MRVC/E/R/18 Pt. VI dated 5 September 2012.
(iii) Subsidiary agreement between Govt. of Maharashtra, MMRDA and MRVC dated 1 September 2009.
(iv) Sr. AFA (C)/Dadar's letter dated 7 November 2023.

---

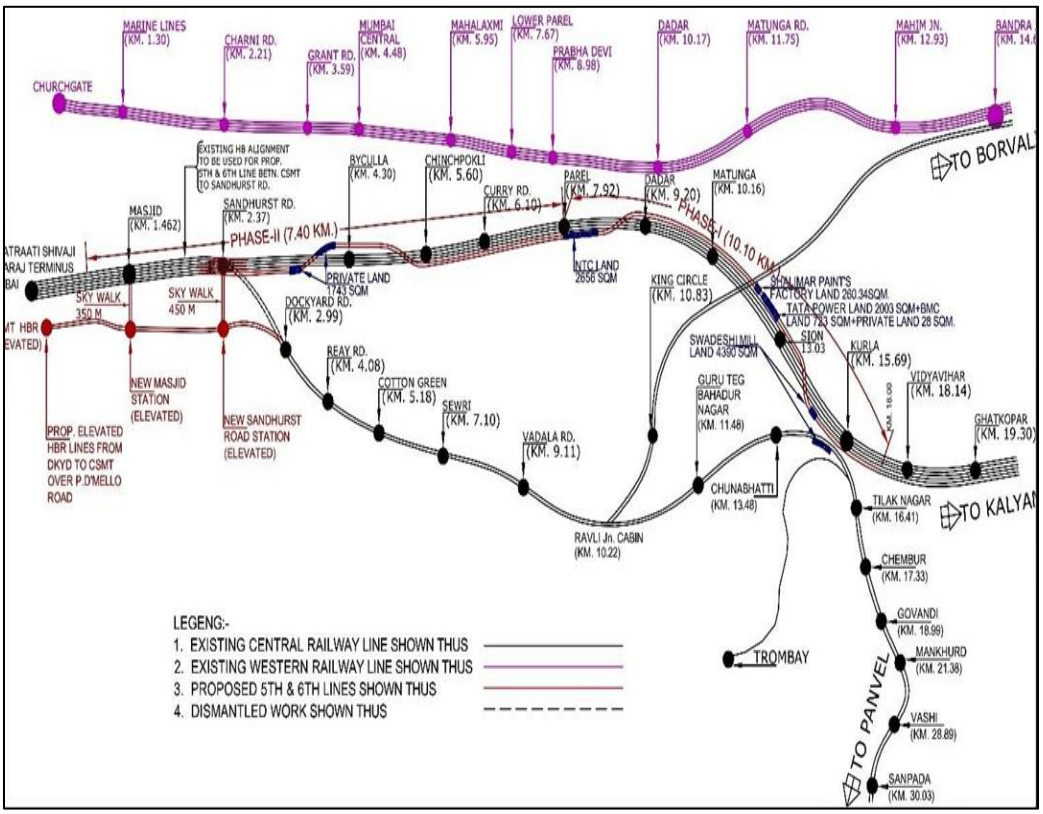
[39] **A Public Sector Undertaking of Govt. of India under Ministry of Railways formed in July 1999.**

[40] **Passing through Masjid, Sandhurst Road, Byculla, Chinchpokli, Curry Road, Parel, Dadar, Matunga and Sion stations.**

The work was to be executed on a cost sharing basis between CR and GoM in the ratio of 50:50. The Detailed Estimate of the project amounting to ₹ 890.89 crore was sanctioned by Railway Board (RB) in September 2014.

The project was targeted to be completed within five years subject to clearance of all the encroachments. The target date of completion was fixed as March 2021[41] and further extended up to March 2024[42]. However, despite expenditure of ₹ 500.93 crore (56.22 *per cent*) (January 2024) made against the sanctioned estimate of ₹ 890.89 crore (September 2014), only 26 *per cent* of the work was physically completed (January 2024). The project was divided into two phases, i.e. Phase- I consists of section from Kurla station to Parel station and Phase- II from Parel station to CSMT station as shown in **Fig. 2.1**. CR decided to complete the Phase- I work first.

Fig. 2.1: Drawing for construction of 5th & 6th line between CSMT-Kurla station



Source: PCDO of CAO(C) CR to RB

[41] **Source: The Periodical Confidential Demi Official (PCDO) letter for the month of November 2018 of the CAO (C), CR to RB.**

[42] **For Phase I- March 2024. For Phase II- No target date was fixed for completion.**

2.3 Audit objectives

Audit of the project was taken up to assess whether**:**

- Project planning was done considering the practical constraints and the project was implemented as per the project plan.
- Co-ordination amongst multiple agencies involved was effective to take the project forward in a timely manner.

2.4 Audit criteria

The audit criteria was sourced from Indian Railway Code for Engineering Department and instructions issued by RB from time to time.

2.5 Scope and methodology of audit

Audit focused on the project planning and implementation process including land acquisition for the period from 2009-10 (project sanction) to January 2024. The audit methodology entailed examination of related records of RB and CR.

2.6 Project status

The status of Phase- I work (as on January 2024) is as under:

Table 2.1: Status of Phase-I (Kurla-Parel) work

Sl. No.	Particulars	Targeted work	Work completed
1	Route length	10.10 Route Kilometer (RKM)	Nil
2	Land acquisition	10060.99 Sqm	2656 Sqm land acquired
3	Rehabilitation and Resettlement of Project Affected Persons (PAPs)	758 PAPs identified and to be rehabilitated.	41 PAPs rehabilitated in 2017.
4	Suburban Terminus	To be constructed at Parel	Work completed in March 2019.
5	Service Buildings to be relocated and rebuilt	67 structures to be relocated and constructed	Three structures (Parel, Matunga and Kurla) completed, work of four (Dadar, Matunga, Sion and Kurla) in progress.
6	Road Over Bridges (ROBs)	Two ROBs at Sion and Dharavi	Contract for ROB at Sion awarded. Tender for ROB at Dharavi was not processed due to non-issue of No

Sl. No.	Particulars	Targeted work	Work completed
			Objection Certificate by Traffic Police Department, Mumbai.
7	Rail Flyover	Two Flyovers (Kurla Flyover and King Circle Flyover)	Kurla Flyover work in progress (30 *per cent* progress). No progress in King Circle Flyover due to pending land acquisition.
8	Foot Over Bridges (FOBs)	19 FOBs were to be constructed/modified	Five FOBs constructed. Work of remaining 14 FOBs was held up due to non-availability of clear site for extension/ modification.

In respect of **Phase II** work, CR submitted land acquisition proposal in October 2023. There was no physical progress in the Phase II work.

2.7 Audit findings

2.7.1 Project Planning and its implementation

Appropriate project management structure, proper execution and monitoring methodology, sufficient project financing and prompt dispute resolution mechanism are prerequisites to ensure commissioning of any project in a timely manner and within the sanctioned budget.

2.7.1.1 Planning for Detailed Estimate

RB instructions (June 2008) regarding preparation of estimates clearly state that the tendency to provide facilities in an extravagant and lavish manner has to be severely curbed. Estimates pertaining to service buildings, particularly those for housing the Signal & Telecom infrastructure, sheds in workshops, offices for inspectorial staff, *etc.* must be pruned down to bare minimum level only just to meet the functional requirements and nothing more.

A contract for survey, preparation of site plans, yard plans, General Arrangement Drawings, Detailed Estimate, Bill of Quantity, detailed design/drawings, land acquisition plans, computation of additional land width required, *etc*. for Civil, Electrical and S&T works in connection with Detailed Engineering work was awarded to M/s RITES in June 2009[43].

[43] **With completion period of 30 months.**

Accordingly, M/s. RITES prepared and submitted the consolidated Detailed Estimate of ₹ 923.78 crore in February 2012 which was sent to RB by CR in January 2013 for sanction.

RB, during examination of the Detailed Estimate, raised queries to CR on inclusion of the following major items:

- Provision of 134 new residential quarters and extension of platforms and platform shelters as these works were not directly linked to the work (May 2013 and February 2014).
- Electrical and S&T equipment to be removed (September 2013).
- Provision of furniture and hiring of vehicles (February 2014).
- Incomplete justification for increase in the number of FOBs in the project and flyover at Kurla (May 2014 and July 2014).

On the advice of RB, the number of residential quarters provided in the Detailed Estimate was reduced to 72 from 134 (June 2014) and provision of electrical equipment of ₹ 9.64 crore was deleted as MRVC agreed to provide these items under a separate arrangement (October 2013). Detailed justification for increase in number of FOBs in the project and for the flyover to be constructed at Kurla, was submitted by CR to RB in June 2014 and August 2014 respectively.

The modified Detailed Estimate at a reduced cost of ₹ 890.89 crore was sanctioned by RB in September 2014.

Audit observed that non-adherence of RB's instructions of June 2008 for provision of housing to be kept to a bare minimum level and submission of estimate with incomplete justification led to avoidable delay in sanctioning of the Detailed Estimate.

MoR in its reply (September 2024) stated that in compliance with the Railway Board's observations, corrections were made to the Detailed Estimate and the modified Detailed Estimate was sanctioned by the Railway Board in September 2014. While preparing the Detailed Estimate, the requirements were considered at a bare minimum level.

MoR's reply was generic and did not comment on the inclusion of 134 residential quarters in the Detailed Estimate submitted to the Railway Board, which were later reduced to 72 by the Railway Board while sanctioning the estimate. Furthermore, no comments were made regarding submission of the estimate to the Railway Board with incomplete justification, which resulted in avoidable delay in sanctioning of the Detailed Estimate.

2.7.1.2 Planning for land acquisition and its implementation

Paras 803 and 804 of Indian Railway Code for Engineering Department stipulate that in acquiring land for railway purposes, the Railway Administration is responsible to see that: (i) it is necessary to acquire the land; (ii) the sanction of competent authority exists for the acquisition; (iii) if any departure from the rules is contemplated, the specific approval of the RB to such departure has been obtained; (iv) a proper title to the land acquired is secured and kept and it is capable of accurate identification; (v) purchase price is reasonable, and (vi) the land is utilised to the best advantage.

The initial responsibility for ensuring that land is not acquired without ensuring its clear necessity, therefore, rests with the Heads of Departments concerned in respect of land acquired for their departments.

Moreover, MoR also issued instructions (December 2009) regarding action to be taken to make acquisition more attractive and in a timely manner and to streamline the process of acquisition of land. Some of the action points were as under:

- Acquisition of private land may be done only when very essential and unavoidable.
- Projects shall be planned in such a manner so as to cause minimum acquisition of land, particularly agricultural land, and dislocation of landowners.

Review of records in connection with land acquisition revealed that though the contract for detailed engineering work was awarded to M/s. RITES in June 2009, the work of preparation of land plans for land acquisition was started by M/s. RITES only in August 2012.

M/s. RITES informed CR (January 2014) that even after making consistent liaison with revenue officials of the State Government concerned for a substantial period, all the required sheets for preparation of land acquisition plans were not issued. M/s. RITES completed the work of preparation of land plans only in May 2014.

In the Detailed Estimate (September 2014), requirement of 21038.56 Sqm land was assessed for the project with provision of keeping distance of railway land boundary up to five meters from the center of outer track[44], providing Over Head Equipment (OHE) portal and side drains along the boundary to avoid flooding. Accordingly, CR submitted 53 nos. of land

[44] **based on RB's instruction of 2008**

acquisition proposal plans for 23789.6 Sqm of land to the Collector, Mumbai (November 2014).

Initially, these proposals were returned by the Collector's office (February 2015) to CR stating that the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act, 2013) does not provide right of land acquisition to their office.

These 53 nos. of land proposals for acquisition submitted earlier (November 2014) were streamlined in January 2016. The requirement of land was reduced by approximately 6000 Sqm (29 *per cent*) on account of excess assessment[45] and a revised list of 23 land plans for 17,682 Sqm was sent by CR to the Collector, Mumbai.

Audit observed that non-adherence of the codal provisions and RB's instructions of minimum acquisition of land resulted in excess assessment of land requirement proposed in the Detailed Estimate. Further, instances[46] of lapses on the part of M/s. RITES were also noticed which contributed to delay in land acquisition.

MoR in its reply (September 2024) stated that the requirement for private land acquisition was calculated based on the bare minimum needed for constructing the proposed 5th and 6th lines between CSMT and Kurla. Consequently, 53 land acquisition proposal plans covering 23,789.6 square meters were submitted to the Collector's office, Mumbai, to initiate the land acquisition process. These proposals involved the acquisition and demolition of numerous multi-storied private buildings. After multiple discussions and site verifications with various authorities, it became apparent that acquiring multi-storied private buildings would be challenging due to potential litigation and disputes, leading to significant project delays. Therefore, the land requirement was revised to 17,682 square meters by adjusting the proposed alignment. Mumbai's suburban area, particularly in the Greater Mumbai city area, features densely populated high-rise buildings, making land acquisition a complex process due to various constraints. Nevertheless, utmost care was taken to adhere to codal provisions and Railway Board guidelines and accurately assess land requirements based on prevailing conditions.

---

[45] **At Chinchpokli East, Kurla, parts of Sion (W) and Parel (E).**

[46] **Non-attending of meetings by M/s. RITES representatives on 15 December 2016, 10 January 2017 and 18 December 2017. Also required documents such as land proposals were not submitted in proper forms by M/s. RITES.**

MoR's reply is not acceptable. The initial land assessment in November 2014 was inadequate. Had MoR's December 2009 instructions been followed, an over-assessment of 6,000 square meters (29 *per cent*) could have been avoided. Furthermore, the challenges in acquiring multi-storied buildings should have been anticipated initially to prevent excess land assessment.

A. Land acquisition for Phase- I (Kurla-Parel) work

Out of 17,682 Sqm of land (Government and Private), 10,060.99 Sqm of land of five locations was to be acquired for Phase I work. The status of land acquisition for Phase I work is shown in **Table 2.2**:

Table 2.2: Status of land acquisition for Phase-I work

Sl. No.	Land to be acquired from/type of land	Area (Sqm)	Payment made (₹ in crore)	Status of land acquisition	Audit comments
1	National Textile Corporation (NTC)-Parel Railway Station area East/Govt land	2656	129.30	Proposal submitted on 18/1/2018. Land acquisition process started in March 2018. Ministry of Textiles approved the land transfer to Railway in December 2020. CR made payment of land cost to NTC in December 2021. Physical possession of land received (November 2023). Assignment deed was made on 2/11/2023 and sent to Revenue Authority for mutation.	Although the approval for land transfer was given by the Ministry of Textiles in December 2020, it took three years for actual acquisition of the land.

Sl. No.	Land to be acquired from/type of land	Area (Sqm)	Payment made (₹ in crore)	Status of land acquisition	Audit comments
2	Municipal Corporation of Greater Mumbai (MCGM) Sion-Dharavi area/Govt land	723	6.35	Proposal submitted on 18/1/2018. Land acquisition process started in March 2018. Payment was made by CR to MCGM in May/August 2022. MCGM has approved the land transfer and possession will be given after rehabilitation of PAPs, which is pending on behalf of Mumbai Metropolitan Region Development Authority (MMRDA).	The transfer and possession of land was held up due to non-rehabilitation of PAPs, which was pending on behalf of MMRDA.
3	MCGM land given on lease to Shalimar Paints Factory (Kings Circle Harbour Flyover) /Govt land	260.34	1.96	Proposal was submitted on 18/1/2018. Land acquisition process started in March 2018. CR approached BMC for direct purchase method in December 2019. Payment of land was made in July 2022. Collector Mumbai city declared award on 30/8/2022. Action for rehabilitation of PAPs is pending on behalf of MMRDA.	Payment of land was made in July 2022. However, possession of land was held up due to non-shifting of PAPs.
4	Tata Power + I.S. Pathak/ Private land	2109.25	2.28	Proposal submitted on 18/1/2018. Public notice issued on 26/10/2018. A meeting was held between Railway, Land Acquisition Officials, Tata Power and MMRDA on 16/12/2021.	The possession of land was held up due to non-shifting of PAPs by MMRDA.

Sl. No.	Land to be acquired from/type of land	Area (Sqm)	Payment made (₹ in crore)	Status of land acquisition	Audit comments
				Tata Power stated that unless Railways cleared the working site of Tata Power, NOC from Tata Power will not be issued. It was also stated that they had no objection in transferring the land to CR, provided Railways rehabilitate some hutment dwellers from the land of Tata Power over which transmission line foundation has to be constructed by them arising due to this land transfer. Order letter issued by Dy. Distt. Collector on 16/6/2022. Action for rehabilitation of PAPs is pending on behalf of MMRDA. Possession of land can only be taken after shifting of PAPs by MMRDA.	
5	Swadeshi Mill (land between Kurla-Sion and Kurla-Chunabhatti) /private land	4390.65	13.95	Proposal was submitted to Dy. Collector on 9/3/2019. It is a disputed land under control of Court Receiver. NOC granted by Hon. High Court, Mumbai on 5/1/2022. Notice under section 11 was issued on 23/5/2022. 30 *per cent* advance payment made on 27/10/2022.	PAP survey could not be carried out due to resistance by residents. The land acquisition process has not yet completed (June 2024).

Sl. No.	Land to be acquired from/type of land	Area (Sqm)	Payment made (₹ in crore)	Status of land acquisition	Audit comments
				Occupants did not allow Baseline Socio-Economic (BSE) survey team to do survey on 27/7/2022 and 31/12/2022 for identification of PAPs for rehabilitation. Notice published under RFCTLARR Act 2013, Clause No. 11 on 28/2/2024 by SDO Vidyavihar.	

MoR in its reply (September 2024) reiterated the earlier land acquisition status as commented by Audit. MoR stated that the rehabilitation of Project Affected Persons (PAPs) related to (i) Municipal Corporation of Greater Mumbai (MCGM) Sion-Dharavi area/Government land, (ii) MCGM land leased to Shalimar Paints Factory (Kings Circle Harbour Flyover)/Government land, and (iii) Tata Power + I.S. Pathak/Private land would be completed by September 2024. Regarding Swadeshi Mill, located between Kurla-Sion and Kurla-Chunabhatti/Private land, MoR mentioned that the Railway Administration is actively pursuing the matter with SDO Vidyavihar for its acquisition.

B. Land Acquisition for Phase- II (Parel to CSMT) work

For Phase- II work, acquisition of about 6767[47] Sqm of land against total balance quantity of 7621 Sqm and dismantling of private structures and buildings between Sandhurst Road and CSMT was involved. To avoid the acquisition and demolition of 11 multi-storey buildings, CR proposed to the GoM (December 2014) for alternate alignment with provision to divert the existing Harbour line from Dockyard Road station towards P D'mello Road to create space for 5th and 6th lines, to accord approval. As in-principle approval of the State Government for alternate alignment was awaited, CR requested (February 2016) Chief Secretary, GoM and Principal Secretary to Hon'ble Chief Minister of Maharashtra to accord in-principle approval for the above proposed alternate alignment. GoM was

[47] **1743 Sqm at Byculla and 5024 Sqm at Masjid.**

again requested to give formal approval for the proposed alignment in April 2021. In June 2021, Indian Railway Station Development Corporation[48] (IRSDC) included this matter of in-principle approval from GoM for Harbour line diversion along P D'mello Road as an agenda item in the High-Level Committee meeting, chaired by Chief Secretary of Maharashtra. The meeting of the High-Level Committee held on August 2022 concluded non-feasibility for diverting existing Harbour line from Dockyard Road station towards P D'mello Road and recommended to adopt the initial proposal of alignment parallel to existing Railway land between Sandhurst Road and Masjid stations. Thereafter, CR submitted (October 2023) land acquisition proposal to Dy. Collector (LA Officer) for CSMT to Sandhurst Road section.

Thus, delay in taking a decision regarding diversion of existing Harbour line from Dockyard Road station towards P D'mello Road delayed the execution of Phase II work by more than seven years.

MoR in its reply (September 2024) reiterated the above facts and stated that the Collector, Mumbai has initiated the land acquisition process. However, as of September 2024, there has been no physical progress in acquiring the land.

2.7.1.3 Planning for Rehabilitation and Resettlement of Project Affected Persons

(i) The responsibility of Rehabilitation and Resettlement (R & R) of PAPs for the project lies with MRVC. Baseline Socio-Economic Survey (BSES) work for affected structures/households falling under the alignment of 5th and 6th line between CSMT and Kurla station was entrusted to the Society for Promotion of Area Resource Centre (SPARC). MRVC requested (October 2010) CR to expedite the finalisation of alignment as SPARC could not commence the BSES work due to non-availability of land alignment plans.

The schematic diagrams for land acquisition submitted by M/s. RITES (April 2012), were not found to be suitable for R&R of PAPs. MRVC advised (May 2012) to send scale plans for the locations where land acquisition was to be made which was essential for initiating BSE survey.

---

[48] **A Joint Venture company of Rail Land Development Authority (RLDA), a statutory authority under the Ministry of Railways and IRCON International Limited. It aims to develop/re-develop the existing/new railway station which will consist of upgrading the level of passenger amenities by new constructions/renovations including re-development of the station buildings, platform surfaces, circulating area, *etc*., to better standards.**

Accordingly, M/s. RITES in August 2012, submitted land acquisition plans with drawings for land to be acquired nearby to the Masjid, Byculla, Chinchpokli, Currey Road, Parel, Matunga, Sion and Kurla stations. MRVC, in September 2012, handed over the above drawings to SPARC to initiate BSE survey and requested to complete the Phase I work at the earliest. Thus, the actual BSE survey was started from September 2012.

Again, in July 2017, MRVC forwarded three[49] land plans to SPARC to carry out BSE survey. SPARC identified 758 PAP cases, out of which 41 cases were already rehabilitated and resettled in 2017. BSE survey for land proposal of Swadeshi Mill could not be completed (as on January 2024) due to resistance from the occupants of this land.

Audit noticed that factors like inadequate land plans for BSE survey submitted by M/s. RITES and resistance from the PAPs resulted in non-completion of BSE survey for Phase I work even after lapse of more than 11 years from September 2012.

MoR in its reply (September 2024) did not address the inadequate land plans for the BSE survey submitted by M/s. RITES. However, MoR stated that for the Swadeshi Mill land, the Railway has applied for its acquisition under Section 10(D) of the RFCTLARR Act, 2013, due to resistance from residents occupying the land, which hindered the BSE survey. The Revenue authorities of Maharashtra, specifically the Deputy Collector, Bandra, approved the proposal and initiated the land acquisition process. In April 2024, the Sub-Divisional Officer (SDO), Vidyavihar, requested the Railway to conduct a joint survey and measurement of the land. The Railways is actively pursuing the matter with the Revenue authorities for the land acquisition. Regarding the remaining 717 Project Affected Persons (PAPs), MoR stated that they would be rehabilitated by September 2024.

However, as of September 2024, these 717 PAPs have yet to be rehabilitated.

(ii) Govt. of Maharashtra appointed Mumbai Metropolitan Region Development Authority (MMRDA) as the nodal agency (September 2010) to execute the work of R&R of the project affected households. The rehabilitation scheme for 634 nos. of PAPs was submitted by MMRDA in August 2021. The survey report of 60 nos. of PAPs on Western Railway (WR) land at Dadar and left out

[49] **Sion-Dharavi from Km. 12.138 to Km. 12.831, Parel from Km. 7.806 to Km. 8.319 and R&R at Parel Skywalk**

23 nos. of PAPs (Parel and King Circle stations) was submitted by CR to MMRDA in September 2021 and November 2021 respectively. The rehabilitation of all the above PAPs was required to be done by MMRDA in units at Kilburn, Nahur. However, due to non-completion of construction work of these units, PAPs were not shifted there. MMRDA informed (October 2023) that all the above PAPs would be rehabilitated at Kurla (West) by the end of September 2024.

Audit observed that PAPs were not rehabilitated (January 2024) as MMRDA could not complete the construction work of units at Kilburn, Nahur. This has resulted in delay in getting possession of land in case of four proposals i.e. MCGM land (Sion-Dharavi)- 723 Sqm., MCGM land on lease to Shalimar Paints Factory (Kings circle)- 260.34 Sqm., Tata Power and I. S. Pathak land- 2109.25 Sqm. and Swadeshi Mill land (Kurla-Sion-Chunabhatti)- 4390.65 Sqm. as mentioned in **Table 2.2** under **Para No. 2.7.1.2**.

MoR in its reply (September 2024) reiterated the above facts. However, there has been no progress regarding the rehabilitation of Project Affected Persons (PAPs) resulting in delayed possession of land at the aforementioned locations.

2.7.1.4 Excess booking of Direction and General charges

In the Detailed Estimate, provision of ₹ 44.37 crore was available for the Direction and General (D&G) charges – Establishment, Civil, Electrical and S&T Departments which was for both Phase I and Phase II of the project. However, Audit observed that an expenditure of ₹ 45.43 crore had already been booked for the project against the D&G charges as of March 2023 which further increased to ₹ 49.39 crore till August 2023. Thus, there had already been an excess expenditure of ₹ 5.02 crore against the D&G charges till August 2023. At present, only Phase I work is being taken up. Thus, D&G charges booked had already exceeded the provision made in the Detailed Estimate for the entire project without assigning any reason for the same.

MoR in its reply (September 2024) stated that an excess expenditure of ₹ 5.02 crore was incurred against Deposit and General (D&G) charges to meet unavoidable staff payment expenses of the construction unit. However, this excess will be adjusted during the preparation of the Revised Estimate for the project at the earliest.

2.7.1.5 Irregularity in Contract Management

Railway Board's orders issued in 1972, 1980, 1985 and 1993 stipulate that contract for work should not be awarded unless soil test, site investigations, *etc*. have been completed, all plans, drawings and estimates duly approved/sanctioned by the competent authority and there is no hitch in handing over the site.

Review of the contracts awarded revealed that RB instructions were not followed in the case of the following Civil Engineering, Electrical Engineering, and Signal & Telecommunications contracts.

(i) A contract for the work of construction of seven Foot over Bridges (FOBs) in the section between Sion (including) and Matunga (including) was awarded in June 2015 at a cost of ₹ 17.49 crore with a completion period of 24 months. Audit observed that only two FOBs[50] at Sion were completed till January 2024. The drawings of other five FOBs could not be finalised and issued to the contractor for execution and were finally deleted from the list of contract (November 2019).

MoR in its reply (September 2024) stated that the proposed Foot Over Bridges (FOBs) were basically extensions or modifications of existing FOBs necessitated due to the addition of two new lines alongside the existing four main lines between Kurla and CSMT. However, since the extensions require land acquisition at multiple locations, construction of these FOBs could not proceed.

Thus, the contract was awarded without fulfilling the necessary pre-requisites, contravening Railway Board's orders issued from time to time.

(ii) A ROB, located between Matunga and Sion stations on CSMT-Kurla Main line, was to be rebuilt at its existing location. Accordingly, for closure and dismantling the existing ROB, CR sought No Objection Certificate (NOC) from Mumbai Traffic Police Department in November 2018. In the meantime, a contract for construction of above ROB was awarded in March 2021 with a completion period of 30 months i.e., by September 2023. However, the work could not be started for want of requisite NOC from Mumbai Traffic Police Department. CR took up the matter with the Mumbai Traffic Police Department in March 2019, November 2019, August 2021, October 2021, March 2022, August 2022, October 2022, November 2022,

[50] **First one FOB was completed in March, 2019 and second one was completed in February 2022.**

December 2022 and January 2023. At last, NOC from the Mumbai Traffic Police Department was received in October 2023.

Audit observed that CR earlier (March 2019) apprised the Mumbai Police Department about the fact that if the ROB at Sion is not completed timely, this might adversely affect timely commissioning of the project and the purpose of facilitating the ever increasing suburban and mail/express passenger traffic and ensure smooth functioning and punctuality of both train services' will be lost. Despite this, five years' time was taken by Mumbai Police Traffic Department to issue NOC to Railways resulting in delay in dismantling/ construction of ROB. Further, the dismantling of the existing ROB was yet to be started (January 2024).

MoR in its reply (September 2024) reiterated the above facts and stated that the dismantling of the Railway Over Bridge (ROB) is still pending due to public representations. The local Member of Parliament has also intervened in the matter and raised some public concerns. However, the Mumbai Traffic Police Department issued a traffic press note for the closure of vehicular traffic on the ROB, effective from August 1, 2024. The dismantling program of this ROB will be taken up shortly in consultation with the Traffic Police Department.

Thus, dismantling of the existing ROB was yet to be started (September 2024).

(iii) CR proposed to construct a flyover for Harbour line at Kurla station to accommodate proposed 5th and 6th lines at ground level. Further, this would also help in segregating the Harbour line traffic from the goods traffic coming from Mumbai Port Trust (MPT) and Trombay. Both these goods lines could join the 5th and 6th lines directly, without crossing the Harbour line on the ground level. If the flyover is not constructed and Harbour line are accommodated on the ground level, the existing Goods lines, which are being used for the stabling of the Goods trains before crossing the Harbour line, would have to be surrendered. Because of the high frequency of the trains on the Harbour line, goods train movements from MPT would get further constrained. Further, benefits expected to accrue from the proposed 3rd line (Goods line) from Vadala Road to Kurla would also not be available. The provision for the above work was made in the Detailed Estimate at a cost of ₹ 66.47 crore. CR awarded two contracts for the construction work of this flyover at Kurla, as detailed below:

(a) "Construction of a Rail flyover for Harbour lines at Kurla": A contract was awarded in January 2016 for ₹ 89.26 crore with a completion period of 36 months. Audit observed that the contract was awarded without any approved design and drawings. M/s. RITES, being appointed under consultancy contract of June 2009, submitted the schedule for tender, design and drawing on the basis of actual site data later. This resulted in upward variation in scheduled quantity at execution stage. The first variation proposed by Construction Department of CR in December 2019 with variation of (+) 38.91 *per cent* with revised contract value of ₹ 124.00 crore was returned without vetting by Associate Finance of CR with a comment that the variation was very high and a number of other queries were also raised. The proposal for interim variation was reviewed by Construction Department of CR and it was observed that 38.91 *per cent* was a huge variation and after approval of the design, the variation would be inescapable. Hence, it was decided to exclude those items which can be executed independently such as mezzanine floor, platform deck, *etc*. from the scope of work resulting in variation of ₹ 106.00 crore which was still 18.30 *per cent* excess over the original contract value. While concurring with the variation (April 2021), the Associate Finance commented that (a) there is a clear loss of huge money to the exchequer, as even after making payment of ₹ 6.00 crore to M/s. RITES for consultancy work, the Detailed Estimate submitted by them was faulty, causing huge variations in scope of work in all areas (b) Certificate for releasing money to M/s. RITES were being issued by Construction Department in a very casual manner without imposing any penalty for poor quality of Detailed Estimate, and (c) Even after lapse of seven year since award of consultancy contract to M/s. RITES, tender for the above flyover work was invited and awarded in 2016 without General Arrangement Drawings resulting in substantial variations.

Extensions were granted during the period from January 2019 to December 2023 under clause 17A of General Conditions of Contract (GCC) without penalty and with Price Variation Clause (PVC), for reasons attributable to the Railway Administration such as 'encroachment on the alignment of the work, work stopped by hutment dwellers and non-possession of clear site for execution of work, pending diversion of existing Harbour line, site not clear due to underground activities, *etc*.

Thus, after a lapse of seven years from the date of award of contract to M/s. RITES in 2009, tender was invited and contract awarded in 2016 without approved General Arrangement Drawing (GAD) of work resulting in substantial variations and liability of PVC payment to the contractor. Audit further observed that a separate contract for the works such as mezzanine floor, platform deck, *etc.*, which were excluded from the scope of the earlier contract and to be executed separately was awarded in June 2023 at a cost of ₹ 43.01 crore. Thus, Railway Administration had to incur an extra expenditure of ₹ 25 crore by awarding a separate contract for the balance work.

MoR in its reply (September 2024) agreed with the audit contention regarding awarding the contract without an approved General Arrangement Drawing (GAD). However, MoR stated that the estimate for the work was initiated after approval of the detailed alignment layout plan. However, the reply did not address the observations made by Associate Finance regarding the variation (April 2021) and avoidable liability for Payment Variation Clause (PVC).

Regarding the separate contract awarded in June 2023 for works like mezzanine floor and platform deck (excluded from the earlier contract's scope), MoR stated these exclusions were due to space constraints and operational requirements, not variation in scheduled quantity.

However, this explanation is unacceptable. The exclusion was due to the first variation proposed by Central Railway in response to Associate Finance's comments, aiming to avoid significant contract value variations. These works could have been executed under the original contract after completing the Rail flyover for Harbour lines at Kurla. Awarding a separate contract in June 2023 (₹ 43.01 crore) resulted in an avoidable liability of ₹ 25 crore.

(b) 'Construction of Composite Girder for Flyover at Kurla: A contract for this work was awarded in October 2019 at a cost of ₹ 16.42 crore with a completion period of 18 months. However, it was observed that the work was not started due to reasons such as (i) Standard RDSO drawings were not available to execute the work, (ii) pile foundation not possible due to the vicinity of storm water open *nullahs*, (iii) presence of hutments at the location of pier foundation which took time to relocate, *etc*.

Railway Administration in response (December 2023) to the audit observation regarding non-commencement of work stated that the detailed design and drawing of the above work was received from

M/s. RITES with various revisions (July 2019, November 2019, December 2020 and September 2023) in drawing. The same were submitted to IIT, Mumbai for proof checking with various revisions and corrections. The final approval from IIT, Mumbai was received in January 2021. The contractor was advised to start the work of girders at RDSO approved workshop. 70 *per cent* of work has been completed and the remaining work would be completed in the next three to four months.

Audit observed that the firm was granted three[51] extensions up to June 2024 for want of detailed drawings and designs. Hence, the award of contract without approved designs and drawings led to delay in completion of work.

MoR in its reply (September 2024) did not address the concern regarding the awarding of the contract without approved designs and drawings, which led to delays in completing the work. It was, however, stated that the work is expected to be completed within the next 3-4 months.

(iv) A contract for the work of 'Extension/Alteration of platforms, construction of platform shed, development of circulating area and construction of toilets and other miscellaneous works at Matunga and Sion stations' was awarded in June 2016 for ₹ 7.31 crore with a completion period of 24 months. However, the work could not be completed due to reasons such as Cover over Platform (COP) drawings under approval, non-shifting of stores belonging to S&T department (Open line) kept at site, *etc*. Six extensions were granted during the period from June 2018 to December 2023. Thus, the work had not been completed even after eight years.

MoR in its reply (September 2024) stated that above work was going on.

(v) A contract for various civil works at Parel station and construction of service buildings between CSMT and Vidyavihar stations was awarded in May 2016 for ₹ 55.58 crore with a completion period of 30 months. The scope of the work included construction of a new platform No. 1, 2 and 3 at Parel station, foundation work of COP and FOB, Skywalk, Parel Terminus Civil work and relocation of service buildings between CSMT and Vidyavihar stations, *etc*. The work was to be completed by 15 November 2018. However, the contractor could not complete the work within original date of completion and

[51] **Up to 30/6/2022, 30/6/2023 and 30/6/2024**

five extensions were granted by Railway Administration for the period from 16 November 2018 to 31 December 2023. The ground for extension was non-submission of Drawing (GAD) for Master Plan for Parel station by M/s. RITES. Due to non-preparation of Master Plan, the work for skywalk and modified FOB at Parel could not be started. Further, the site could not be finalised till the Master plan was approved which was dependent upon the proposed Parel Coaching Complex Engineering Scale Plan (ESP) getting approved. The work of construction of service buildings at Dadar, Matunga Workshop, Kurla, *etc*. were in progress.

Thus, the work included in the contract awarded in 2016 was yet to be completed even after lapse of more than five years beyond the scheduled date of completion.

MoR in its reply (September 2024) disputed the audit observation, stating that the work was not hindered by the non-preparation of the Master Plan and Engineering Scale Plan (ESP) for Parel Coaching Complex. MoR attributed the delays to existing utilities cables (S&T, Electrical, OFC, etc.) and operational activities that required relocation to facilitate construction of the new platform and infrastructure.

However, MoR's explanation is untenable. The extension for completing the work was granted due to M/s. RITES' delayed submission of the General Arrangement Drawing (GAD) for Parel station's Master Plan. Consequently, work on the skywalk and modified Foot Over Bridge (FOB) at Parel could not commence. Moreover, the site finalisation was contingent upon the Master Plan's approval, which in turn depended on the approval of the proposed Parel Coaching Complex ESP.

As of September 2024, the work remained incomplete.

(vi) A contract for the work of “Earthwork formation and extension of minor bridges/culvert and other ancillary works from Vidyavihar station to Byculla station” was awarded in August 2016 for ₹ 12.52 crore with a completion period of 36 months.

Audit observed that the work had not been completed by the scheduled date of completion and four extensions were granted for the period from August 2019 to August 2023. The extensions were granted on account of non-issue of drawings of minor bridges, non-possession of clear sites for execution of work and restrictions due to the pandemic.

MoR stated in its reply (September 2024) that the work is currently in progress. However, MoR's response failed to address the issue of extensions granted due to non-receipt of minor bridge drawings.

As of September 2024, the project remains unfinished, exceeding its scheduled completion date by more than five years.

(vii) A contract for 'design, supply of materials, removal of infringements, modification, erection, testing and commissioning of 1500VDC/25KV OHE for proposed New Suburban Terminal at Parel' was awarded in February 2015 for ₹ 8.19 crore with a completion period of 12 months. The contractor had completed 95 *per cent* of the work and was paid ₹ 2.47 crore up to 6th on account bill in June 2018. The final bill of the work was not prepared for want of finalisation of material reconciliation and final variation. Extension was granted up to December 2022. Further extensions of work, if any, were not on record.

Audit observed that materials valuing ₹ 1.01 crore supplied against the contract was lying unutilised in the Stores depot**.**

In its reply (September 2024), MoR confirmed that the final bill of ₹ 4.21 crore has been cleared and that unused materials were repurposed for other projects, such as Panvel yard Remodelling, Asangaon-Kasara 3rd line, Karjat yard Remodelling, and Kalamboli Coaching Complex.

(viii) A contract for the work of 'Supply, Installation, Testing and Commissioning of indoor and outdoor signaling equipment with alteration in various existing Route Relay Interlocking/Panel Interlocking (RRI/PI) and Auto-Hut in Sion-Parel' was awarded in July 2018 for ₹ 12.95 crore with a completion period of 11 months. The contractor could not complete the work within the scheduled time of completion. Nine extensions were granted for the period from June 2019 to March 2023 on account of non-availability of required site for outdoor works and building for Auto-Hut from Engineering Department. Further, work was short closed in July 2023 due to non-availability of required site from Engineering Department.

Audit observed that the contract was awarded without ensuring availability of site. As a result, changes were made in Signal Interlocking Plan (SIP) prepared earlier and the scope of work was changed. There was no progress in the balance RRI work for the last five years. This led to short closure of work and material valuing ₹ 7.06 crore supplied against the contract was lying idle in the Stores depot.

MoR in its reply (September 2024) agreed with the audit's finding that the work was closed prematurely due to site unavailability. However, MoR failed to address the issue regarding unused materials worth ₹ 7.06 crore, supplied against the contract, which remain idle in the Stores depot and are at risk of becoming obsolete.

2.7.2 Co-ordination at all departmental levels in execution of project

2.7.2.1 Co-ordination between Construction and other open line departments of Central Railway

During construction of the line, each plan and design of the work in connection with the construction of the line was to be approved by the Operating and other Open Line Departments concerned. Despite request made by the Construction Department of CR to the concerned departments of Open Line, instances of delay in approval of such plans, designs and drawings, non-availability of Engineering Scale Plan of the Parel Coaching Complex, non-availability of site for outdoor works and building for Auto-Hut from Engineering Department, *etc*. and non-removal of infringing structures[52] were noticed which delayed the progress of work.

MoR's reply was generic and not specific to issue as raised by Audit.

2.7.2.2 Co-ordination between different zones of Railways

In addition to 17682 Sqm of land (government and private) required for the project, 8554.72 Sqm of land at Dadar was to be transferred from Western Railway (WR) to Central Railway (CR). Accordingly, in December 2015, CR forwarded the plan for the proposed 5th and 6th line at Dadar (West) station to WR along with a request to decide new location for shifting of structures located at Dadar and cost of work on equivalent area basis. WR intimated (April 2016) to CR the abstract estimate cost of ₹ 12.43 crore for relocation of Western Railway South colony at Dadar. CR communicated (April 2017) in-principle approval for the above cost estimate of ₹ 12.43 crore and requested WR to take up the work without any further delay. Further, in July 2017, CR requested WR to hand over the land required by them. However, the required land was not handed over to CR.

Thereafter, CR requested (August 2018) WR to approve drawings regarding CR's proposed construction of 5th and 6th line project at Dadar West station. Request for the same was again made by CR to WR in July 2019, December 2020, December 2021 and June 2022.

[52] **Non-shifting of stores belonging to S&T Department (Open Line) kept at site.**

In December 2021, it was also intimated to WR that their structures are coming in the way of the proposed alignment of 5th & 6th line between CSMT-Kurla Project. These structures are to be relocated first by WR for which relocation cost had already been agreed to by CR. After relocation, these existing structures will be dismantled, land of WR will be transferred to CR and then laying of 5th and 6th line along with construction of two number of platforms at Dadar will be done.

Audit observed that though the sanction of Railway Board to Detailed Estimate of 5th and 6th line between CSMT to Kurla project was received in September 2014 and proposed plan for transfer of land from WR to CR was forwarded by CR to WR in December 2015, the transfer of land by WR to CR has not been done (January 2024). This resulted in non-commencement of work planned at Dadar station.

MoR's reply (September 2024) confirmed the audit finding that the transfer of land from WR to CR has not occurred, resulting in the delayed start of works at Dadar station.

2.8 Conclusion

RB's instructions of June 2008 for provision of housing to be kept to a bare minimum level only just to meet the functional requirements and submission of estimate with full details and justification were not followed at the time of preparing Detailed Estimate. This led to improper Detailed Estimate prepared by M/s. RITES resulting in delay in its sanction by RB.

BSE survey for Phase I work was not completed even after lapse of more than 11 years from September 2012. Further, PAPs were not rehabilitated (January 2024) as MMRDA could not complete the construction work of units at Kilburn, Nahur. This led to delay in getting possession of land.

Non-adherence of codal provisions and RB's instructions of minimum acquisition of land resulted in excess assessment of land requirement at the Detailed Estimate stage. Further, instances of lack of co-ordination between M/s. RITES and State Govt. agencies were noticed. These contributed in delay in BSE survey and land acquisition**.** Land acquisition process for Phase II work from Parel to CSMT was still at the initial stage.

Contracts for construction were awarded without approved designs and drawings, clear sites, *etc*. which led to delay in completion of work. Audit also observed instances of idling of electrical and S&T materials due to award of contracts without ensuring availability of clear sites. There was lack of co-ordination between Zonal Railways, as the proposal for transfer of land from WR to CR was forwarded by CR to WR in December 2015, but

transfer of land by WR has not been done till date (January 2024). The above factors contributed to the extension of the scheduled date of completion of the project from March 2021 to March 2024. Despite expenditure of ₹ 500.93 crore (56.22 *per cent*) (January 2024) made against the sanctioned estimate of ₹ 890.89 crore (September 2014), only 26 *per cent* of the work was physically completed (January 2024) indicating that the target date of completion of project would be further extended.

2.9 Summary of recommendations

- ***Comprehensive assessment of requirement of land needs to be done for acquisition of land in densely populated areas.***
- ***RB's instructions that contracts for works should not be awarded unless all plans, drawings and estimates duly approved are available and there is no hitch in handing over of site may be adhered to while awarding contracts.***
- ***CR may enhance engagement with all stakeholders including Government agencies, Railway authorities, contractors and local communities to ensure alignment on project goals.***

New Delhi
Dated: 03 MAR 2025

(ATREYEE DAS)
Deputy Comptroller and Auditor General

Countersigned

New Delhi
Dated: 03 MAR 2025

(K SANJAY MURTHY)
Comptroller and Auditor General of India

Annexures

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
1	02601		WGSCZJ	BBS	ICF NON AC	26/02/2020	30/04/2020	64	15	49	265691.23
2	05701		GSLRD	VSKP	ICF NON AC	19/03/2020	11/05/2020	53	15	38	206046.26
3	12707		GSLRD	BBS	ICF NON AC	11/03/2020	22/05/2020	72	15	57	309069.39
4	018231		WGSCN	BBS	ICF NON AC	11/03/2020	22/05/2020	72	15	57	309069.39
5	978246		WGSCN	PURI	ICF NON AC	29/02/2020	23/05/2020	84	15	69	374136.63
6	10409		GS	VSKP	ICF NON AC	14/11/2019	27/05/2020	195	15	180	976008.6
7	16802		WGCB	VSKP	ICF NON AC	13/03/2020	28/05/2020	76	15	61	330758.47
8	10203		WGSCN	SBP	ICF NON AC	17/01/2020	29/05/2020	133	15	118	639827.86
9	13411		GS	BBS	ICF NON AC	17/03/2020	30/05/2020	74	15	59	319913.93
10	09142		SWGACCN	BBS	ICF AC	25/01/2020	30/05/2020	126	20	106	574760.62
11	948422	94885	RS	VSKP	ICF NON AC	29/02/2020	30/05/2020	91	15	76	412092.52

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
12	998273		WGSCN	PURI	ICF NON AC	14/03/2020	16/06/2020	94	15	79	428359.33
13	13425		GS	VSKP	ICF NON AC	01/06/2020	19/06/2020	18	15	3	16266.81
14	008716		GSLR	VSKP	ICF NON AC	27/05/2020	22/06/2020	26	15	11	59644.97
15	12274		WGSCN	PURI	ICF NON AC	17/12/2019	25/06/2020	191	15	176	954319.52
16	13057		LWACCW	VSKP	LHB AC	14/03/2020	29/06/2020	107	20	87	471737.49
17	05101		WGACCN	VSKP	ICF AC	14/03/2020	29/06/2020	107	20	87	471737.49
18	12420		LS	PURI	LHB NON AC	11/12/2019	30/06/2020	202	20	182	986853.14
19	10243		WGSCN	VSKP	ICF NON AC	10/12/2019	04/06/2020	177	15	162	878407.74
20	10245		WGSCN	BBS	ICF NON AC	23/12/2019	04/06/2020	164	15	149	807918.23
21	04201		WGSCN	PURI	ICF NON AC	16/03/2020	08/06/2020	84	15	69	374136.63
22	15725		GSLRD	PURI	ICF NON AC	24/06/2020	17/07/2020	23	15	8	43378.16
23	16701		GSLRD	VSKP	ICF NON AC	29/06/2020	17/07/2020	18	15	3	16266.81

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
24	12150		WGACCN	VSKP	ICF AC	01/06/2020	17/07/2020	46	20	26	140979.02
25	92902		RT	KUR	ICF NON AC	20/06/2020	20/07/2020	30	15	15	81334.05
26	998604		WGSCZ	SBP	ICF NON AC	20/06/2020	21/07/2020	31	15	16	86756.32
27	12001		WGFAC	VSKP	ICF AC	21/03/2020	22/07/2020	123	20	103	558493.81
28	088603		WGSCZ	PURI	ICF NON AC	26/12/2019	23/07/2020	210	15	195	1057342.65
29	14716		GSLRD	PURI	ICF NON AC	17/03/2020	23/07/2020	128	15	113	612716.51
30	11416		GS	VSKP	ICF NON AC	20/03/2020	24/07/2020	126	15	111	601871.97
31	12129		LWACCN	PURI	LHB AC	24/06/2020	27/07/2020	33	20	13	70489.51
32	05118		WGACCN	BBS	ICF AC	04/03/2020	06/07/2020	124	20	104	563916.08
33	988101		WGACCN	SBP	ICF AC	04/03/2020	27/07/2020	145	20	125	677783.75
34	008487		GS	BBS	ICF NON AC	16/06/2020	09/07/2020	23	15	8	43378.16
35	98061		WGACCW	VSKP	ICF AC	02/03/2020	15/07/2020	135	20	115	623561.05

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
36	07417		GS	VSKP	ICF NON AC	16/07/2020	28/07/2020	12	15	0	0
37	10217		SWGSCN	BBS	ICF NON AC	04/01/2020	15/07/2020	193	15	178	965164.06
38	05206		WGSCN	VSKP	ICF NON AC	08/07/2020	29/07/2020	21	15	6	32533.62
39	12801		LWCBAC	PURI	LHB AC	24/06/2020	30/07/2020	36	20	16	86756.32
40	10113		WGACCN	SBP	ICF AC	25/11/2019	17/07/2020	235	20	215	1165788.05
41	02211		WGSCN	SBP	ICF NON AC	18/06/2020	30/07/2020	42	15	27	146401.29
42	028414		GS	VSKP	ICF NON AC	11/06/2020	30/07/2020	49	15	34	184357.18
43	08712		GSRD	BBS	ICF NON AC	04/02/2020	29/07/2020	176	15	161	872985.47
44	08418		GS	PURI	ICF NON AC	30/06/2020	07/08/2020	38	15	23	124712.21
45	05208		WGSCN	PURI	ICF NON AC	17/01/2020	08/08/2020	204	15	189	1024809.03
46	14115		WGACCN	VSKP	ICF AC	16/06/2020	17/08/2020	62	20	42	227735.34
47	12260		LWSCN	PURI	LHB NON AC	14/07/2020	20/08/2020	37	20	17	92178.59

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
48	02702		WGSRJ	BBS	ICF NON AC	03/08/2020	21/08/2020	18	15	3	16266.81
49	13407		GS	BBS	ICF NON AC	04/08/2020	22/08/2020	18	15	3	16266.81
50	09601		WGSCZJ	BBS	ICF NON AC	01/08/2020	24/08/2020	23	15	8	43378.16
51	07219		WGSCN	VSKP	ICF NON AC	13/11/2019	27/08/2020	288	15	273	1480279.71
52	12805		LWCBAC	PURI	LHB AC	08/07/2020	28/08/2020	51	20	31	168090.37
53	05223		WGSCN	VSKP	ICF NON AC	18/08/2020	29/08/2020	11	15	0	0
54	15201		WGSCN	BBS	ICF NON AC	24/08/2020	31/08/2020	7	15	0	0
55	17212		LWSCN	BBS	LHB NON AC	17/08/2020	31/08/2020	14	20	0	0
56	X968425	968425	RTTV	SBP	ICF NON AC	20/05/2020	17/08/2020	89	15	74	401247.98
57	12248		LWSCN	PURI	LHB NON AC	08/07/2020	02/09/2020	56	20	36	195201.72
58	14711		GSLRD	PURI	ICF NON AC	13/12/2019	08/09/2020	270	15	255	1382678.85

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
59	14026		WGFCWAC	PURI	ICF AC	07/07/2020	10/09/2020	65	20	45	244002.15
60	16230		WGSCN	SBP	ICF NON AC	05/09/2020	15/09/2020	10	15	0	0
61	16807		WGCB	BBS	ICF NON AC	07/09/2020	21/09/2020	14	15	0	0
62	12064		WGACCW	PURI	ICF AC	19/06/2020	21/09/2020	94	20	74	401247.98
63	14107		WGACCN	BBS	ICF AC	01/07/2020	28/09/2020	89	20	69	374136.63
64	998380		WGSCN	SBP	ICF NON AC	24/06/2020	30/09/2020	98	15	83	450048.41
65	15211		WGSCN	BBS	ICF NON AC	07/09/2020	03/10/2020	26	15	11	59644.97
66	12002		WGFAC	PURI	ICF AC	27/06/2020	07/10/2020	102	20	82	444626.14
67	09946		LWACCN	VSKP	LHB AC	24/07/2020	12/10/2020	80	20	60	325336.2
68	06229		WGSCN	VSKP	ICF NON AC	12/09/2020	19/10/2020	37	15	22	119289.94
69	11405		GS	PURI	ICF NON AC	16/03/2020	21/10/2020	219	15	204	1106143.08
70	10110		WGACCN	BBS	ICF AC	04/07/2020	23/10/2020	111	20	91	493426.57

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
71	16151		WGSCZAC	PURI	ICF AC	07/07/2020	23/10/2020	108	20	88	477159.76
72	098615		WGSCZ	PURI	ICF NON AC	20/02/2020	24/10/2020	247	15	232	1257966.64
73	07235		WGSCN	PURI	ICF NON AC	13/10/2020	24/10/2020	11	15	0	0
74	01877		RA	KUR	ICF AC	03/09/2020	31/10/2020	58	20	38	206046.26
75	15213		WGSCN	PURI	ICF NON AC	20/10/2020	02/11/2020	13	15	0	0
76	12218		LWSCN	PURI	LHB NON AC	22/08/2020	11/11/2020	81	20	61	330758.47
77	17402		LS5	PURI	LHB NON AC	13/10/2020	11/11/2020	29	20	9	48800.43
78	15219		WGSCN	VSKP	ICF NON AC	30/10/2020	13/11/2020	14	15	0	0
79	130010		LWFAC	BBS	LHB AC	09/09/2020	13/11/2020	65	20	45	244002.15
80	018719		GSLR	SBP	ICF NON AC	02/11/2020	16/11/2020	14	15	0	0
81	118417		GS	PURI	ICF NON AC	01/06/2020	19/11/2020	171	15	156	845874.12
82	17404		LS5	PURI	LHB NON AC	22/10/2020	24/11/2020	33	20	13	70489.51

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
83	12123		LWACCN	PURI	LHB AC	13/10/2020	24/11/2020	42	20	22	119289.94
84	17802		LWCBAC	PURI	LHB AC	12/09/2020	27/11/2020	76	20	56	303647.12
85	09151		WGSCZAC	PURI	ICF AC	27/06/2020	30/11/2020	156	20	136	737428.72
86	991054	998363	WGSCN	PURI	ICF NON AC	17/10/2020	10/11/2020	24	15	9	48800.43
87	121156	12231	LWSCN	PURI	LHB NON AC	24/08/2020	08/12/2020	106	20	86	466315.22
88	141150	14124	WGACCN	VSKP	ICF AC	12/11/2020	16/12/2020	34	20	14	75911.78
89	101192	10130	LWACCN	BBS	LHB AC	12/11/2020	17/12/2020	35	20	15	81334.05
90	141151	14060	WGACCW	VSKP	ICF AC	27/08/2020	21/12/2020	116	20	96	520537.92
91	071233	07147	LWACCN	BBS	LHB AC	11/11/2020	23/12/2020	42	20	22	119289.94
92	061207	06102	WGACCN	BBS	ICF AC	31/07/2020	23/12/2020	145	20	125	677783.75
93	121177	12224	LWSCN	PURI	LHB NON AC	22/09/2020	24/12/2020	93	20	73	395825.71
94	171496	17216	LWSCN	PURI	LHB NON AC	13/10/2020	28/12/2020	76	20	56	303647.12
95	121175	12120	LWACCN	PURI	LHB AC	13/10/2020	29/12/2020	77	20	57	309069.39

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
96	171498	17202	LWSCN	PURI	LHB NON AC	31/10/2020	29/12/2020	59	20	39	211468.53
97	171497	17206	LWSCN	PURI	LHB NON AC	31/10/2020	30/12/2020	60	20	40	216890.8
98	061205	06130	WGACCN	VSKP	ICF AC	12/09/2020	31/12/2020	110	20	90	488004.3
99	161163	16052	WGACCW	SBP	ICF AC	02/12/2020	31/12/2020	29	20	9	48800.43
100	124010	12216	LWSCN	PURI	LHB NON AC	22/09/2020	14/12/2020	83	20	63	341603.01
101	044005	04215	WGSCN	PURI	ICF NON AC	13/10/2020	14/12/2020	62	15	47	254846.69
102	901003	90880	RA	KUR	ICF AC	14/10/2020	16/12/2020	63	20	43	233157.61
103	114003	11215	WGSCN	PURI	ICF NON AC	30/07/2020	21/12/2020	144	15	129	699472.83
104	134001	13208	WGSCN	VSKP	ICF NON AC	15/12/2020	01/01/2021	17	15	2	10844.54
105	124006	12222	LWSCN	PURI	LHB NON AC	24/10/2020	02/01/2021	70	20	50	271113.5
106	104007	10421	GS	BBS	ICF NON AC	11/11/2020	06/01/2021	56	15	41	222313.07
107	154005	15416	GS	VSKP	ICF NON AC	03/12/2020	07/01/2021	35	15	20	108445.4

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
108	124008	12401	GS	VSKP	ICF NON AC	15/12/2020	08/01/2021	24	15	9	48800.43
109	141172	143880	LWFCZAC	PURI	LHB AC	25/11/2020	12/01/2021	48	20	28	151823.56
110	064002	06444	GS	VSKP	ICF NON AC	01/01/2021	13/01/2021	12	15	0	0
111	021099	028138	WGACCN	PURI	ICF AC	08/12/2020	15/01/2021	38	20	18	97600.86
112	07851		WRRMDAC	BBS	ICF AC	08/01/2021	15/01/2021	7	20	0	0
113	104016	10206	WGSCN	PURI	ICF NON AC	05/09/2020	16/01/2021	133	15	118	639827.86
114	154009	15413	GS	PURI	ICF NON AC	18/12/2020	18/01/2021	31	15	16	86756.32
115	09146		SWGACCN	BBS	ICF AC	29/01/2020	19/01/2021	356	20	336	1821882.72
116	034011	03420	GS	VSKP	ICF NON AC	01/01/2021	19/01/2021	18	15	3	16266.81
117	041184	04026	WGFCWAC	PURI	ICF AC	08/12/2020	22/01/2021	45	20	25	135556.75
118	174023	17401	LS	PURI	LHB NON AC	04/12/2020	23/01/2021	50	20	30	162668.1
119	141176	14061	WGACCW	VSKP	ICF AC	17/12/2020	25/01/2021	39	20	19	103023.13

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
120	014014	018214	WGSCN	PURI	ICF NON AC	04/01/2021	27/01/2021	23	15	8	43378.16
121	064015	06206	WGSCN	VSKP	ICF NON AC	18/01/2021	28/01/2021	10	15	0	0
122	064012	06804	WGCB	PURI	ICF NON AC	08/09/2020	28/01/2021	142	15	127	688628.29
123	064029	06233	WGSCN	VSKP	ICF NON AC	21/01/2021	30/01/2021	9	15	0	0
124	044029	04235	WGSCN	VSKP	ICF NON AC	21/01/2021	30/01/2021	9	15	0	0
125	064028	06218	WGSCN	VSKP	ICF NON AC	21/01/2021	30/01/2021	9	15	0	0
126	061213	06854	LWLRRM	BBS	LHB AC	23/12/2020	30/01/2021	38	20	18	97600.86
127	X96101	96101	WCDAC	SBP	ICF AC	22/01/2020	30/01/2021	374	20	354	1919483.58
128	994014	998321	WGSCN	VSKP	ICF NON AC	16/01/2021	02/02/2021	17	15	2	10844.54
129	174024	17417	LS	BBS	LHB NON AC	28/12/2020	03/02/2021	37	20	17	92178.59
130	084018	08405	GS	PURI	ICF NON AC	16/01/2021	08/02/2021	23	15	8	43378.16

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
131	041188	04135	WGACCN	VSKP	ICF AC	21/01/2021	11/02/2021	21	20	1	5422.27
132	141179	143803	LWCBAC	VSKP	LHB AC	01/01/2021	16/02/2021	46	20	26	140979.02
133	051176	05152	WGSCZAC	VSKP	ICF AC	03/09/2020	22/02/2021	172	20	152	824185.04
134	161173	16102	WGACCN	PURI	ICF AC	05/01/2021	24/02/2021	50	20	30	162668.1
135	071255	07076	WGCWNAC	BBS	ICF AC	22/10/2020	24/02/2021	125	20	105	569338.35
136	154042	15217	WGSCN	PURI	ICF NON AC	22/01/2021	24/02/2021	33	15	18	97600.86
137	124026	12413	GS	VSKP	ICF NON AC	18/01/2021	24/02/2021	37	15	22	119289.94
138	071240	07002	LWFAC	BBS	LHB AC	08/01/2021	25/02/2021	48	20	28	151823.56
139	034023	03416	GS	PURI	ICF NON AC	20/01/2021	25/02/2021	36	15	21	113867.67
140	110014	11101	SWGACCN	BBS	ICF AC	16/12/2020	27/02/2021	73	20	53	287380.31
141	134126	13429	GS	SBP	ICF NON AC	10/02/2021	01/03/2021	19	15	4	21689.08
142	074103	07237	WGSCN	VSKP	ICF NON AC	23/02/2021	03/03/2021	8	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
143	124025	12426	LS	PURI	LHB NON AC	22/08/2020	05/03/2021	195	20	175	948897.25
144	061212	06851	LWLRRM	VSKP	LHB AC	19/09/2020	05/03/2021	167	20	147	797073.69
145	994038	998203	WGSCN	PURI	ICF NON AC	01/02/2021	06/03/2021	33	15	18	97600.86
146	054087	05612	WGSCZ	VSKP	ICF NON AC	15/02/2021	06/03/2021	19	15	4	21689.08
147	188023		MEMUTC	KUR	ICF NON AC	30/09/2020	12/03/2021	163	15	148	802495.96
148	071246	07077	WGCWNAC	PURI	ICF AC	05/01/2021	17/03/2021	71	20	51	276535.77
149	144101	14450	GS	SBP	ICF NON AC	10/02/2021	18/03/2021	36	15	21	113867.67
150	141268	14153	LWSCZAC	PURI	LHB AC	25/06/2021	19/08/2021	55	20	35	189779.45
151	121195	12106	LWACCN	BBS	LHB AC	16/12/2020	20/03/2021	94	20	74	401247.98
152	144140	14704	GSLRD	BBS	ICF NON AC	02/03/2021	20/03/2021	18	15	3	16266.81
153	174140	17228	LWSCN	PURI	LHB NON AC	17/02/2021	22/03/2021	33	20	13	70489.51
154	081313	08137	WACCNH	PURI	ICF AC	10/02/2021	23/03/2021	41	20	21	113867.67

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
155	054100	05308	WGSCN	VSKP	ICF NON AC	11/03/2021	24/03/2021	13	15	0	0
156	078283		WGSCN	VSKP	ICF NON AC	10/03/2021	25/03/2021	15	15	0	0
157	044103	04233	WGSCN	VSKP	ICF NON AC	06/03/2021	25/03/2021	19	15	4	21689.08
158	064119	06702	GSLRD	VSKP	ICF NON AC	09/03/2021	27/03/2021	18	15	3	16266.81
159	071244	07053	LWACCW	BBS	LHB AC	16/12/2020	27/03/2021	101	20	81	439203.87
160	094015	09222	WGSCN	PURI	ICF NON AC	12/01/2021	27/03/2021	74	15	59	319913.93
161	094104	09701	GSLRD	BBS	ICF NON AC	17/03/2021	31/03/2021	14	15	0	0
162	111211	11152	WGSCZAC	BBS	ICF AC	12/02/2021	31/03/2021	47	20	27	146401.29
163	044128	04711	GSLRD	SBP	ICF NON AC	20/03/2021	03/04/2021	14	15	0	0
164	141205	143173	LWSCZAC	KUR	LHB AC	29/01/2021	07/04/2021	68	20	48	260268.96
165	044119	04413	GS	WAT	ICF NON AC	18/03/2021	07/04/2021	20	15	5	27111.35
166	124136	12403	GS	WAT	ICF NON AC	09/03/2021	09/04/2021	31	15	16	86756.32

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
167	101223	10101	WGACCN	KUR	ICF AC	29/12/2020	10/04/2021	102	20	82	444626.14
168	044140	03707	GSLRD	KUR	ICF NON AC	26/03/2021	13/04/2021	18	15	3	16266.81
169	131330	13116	WGACCN	KUR	ICF AC	12/01/2021	13/04/2021	91	20	71	384981.17
170	104169	10227	WGSCN	WAT	ICF NON AC	20/03/2021	15/04/2021	26	15	11	59644.97
171	084081	08610	WGSCZ	KUR	ICF NON AC	16/02/2021	21/04/2021	64	15	49	265691.23
172	994015	998208	WGSCN	KUR	ICF NON AC	22/12/2020	23/04/2021	122	15	107	580182.89
173	121213	12110	LWACCN	KUR	LHB AC	15/02/2021	23/04/2021	67	20	47	254846.69
174	081331	07150	LWACCN	KUR	LHB AC	15/03/2021	29/04/2021	45	20	25	135556.75
175	104209	10235	WGSCN	KUR	ICF NON AC	19/04/2021	29/04/2021	10	15	0	0
176	064171	06402	GS	WAT	ICF NON AC	12/04/2021	29/04/2021	17	15	2	10844.54
177	168153		WGSCZAC	KUR	ICF AC	05/03/2021	30/04/2021	56	20	36	195201.72
178	081334	08126	WACCNH	KUR	ICF AC	27/03/2021	30/04/2021	34	20	14	75911.78

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
179	104182	10433	GS	KUR	ICF NON AC	03/04/2021	04/05/2021	31	15	16	86756.32
180	124141	12430	GS	WAT	ICF NON AC	13/03/2021	06/05/2021	54	15	39	211468.53
181	144247	14402	GS	WAT	ICF NON AC	19/04/2021	10/05/2021	21	15	6	32533.62
182	071276	07116	WGACCN	WAT	ICF AC	11/03/2021	10/05/2021	60	20	40	216890.8
183	104170	10431	GS	WAT	ICF NON AC	22/03/2021	11/05/2021	50	15	35	189779.45
184	044183	04209	WGSCN	SBP	ICF NON AC	29/04/2021	12/05/2021	13	15	0	0
185	064174	06703	GSLRD	WAT	ICF NON AC	07/04/2021	12/05/2021	35	15	20	108445.4
186	121212	12104	WGACCN	KUR	ICF AC	16/02/2021	15/05/2021	88	20	68	368714.36
187	111215	11052	WGACCW	KUR	ICF AC	05/03/2021	15/05/2021	71	20	51	276535.77
188	094182	09214	WGSCN	SBP	ICF NON AC	30/04/2021	17/05/2021	17	15	2	10844.54
189	171615	17118	LWACCN	KUR	LHB AC	26/03/2021	19/05/2021	54	20	34	184357.18
190	064162	06708	GSLRD	KUR	ICF NON AC	05/04/2021	19/05/2021	44	15	29	157245.83

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
191	89890		RH	SBP	ICF NON AC	20/04/2021	19/05/2021	29	15	14	75911.78
192	094184	09413	GS	SBP	ICF NON AC	03/05/2021	22/05/2021	19	15	4	21689.08
193	134280	13418	GS	SBP	ICF NON AC	05/05/2021	27/05/2021	22	15	7	37955.89
194	054191	05228	WGSCN	SBP	ICF NON AC	20/05/2021	04/06/2021	15	15	0	0
195	144280	14235	WGSCN	SBP	ICF NON AC	25/05/2021	07/06/2021	13	15	0	0
196	134288	13211	WGSCN	WAT	ICF NON AC	15/05/2021	08/06/2021	24	15	9	48800.43
197	071274	06078	WGCWNAC	KUR	ICF AC	09/03/2021	09/06/2021	92	20	72	390403.44
198	034070	03203	WGSCN	KUR	ICF NON AC	26/02/2021	11/06/2021	105	15	90	488004.3
199	131416	13125	WGACCN	WAT	ICF AC	08/04/2021	15/06/2021	68	20	48	260268.96
200	131428	13102	WGACCN	WAT	ICF AC	29/04/2021	23/06/2021	55	20	35	189779.45
201	090023	09289	SWGSCN	KUR	ICF NON AC	17/08/2020	23/06/2021	310	15	295	1599569.65
202	184154	18203	LWSCN	KUR	LHB NON AC	26/05/2021	30/06/2021	35	20	15	81334.05

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
203	174231	17213	LWSCN	KUR	LHB NON AC	04/05/2021	30/06/2021	57	20	37	200623.99
204	131441	13051	WGACCW	KUR	ICF AC	22/05/2021	06/07/2021	45	20	25	135556.75
205	164165	15423	GS	KUR	ICF NON AC	24/06/2021	06/07/2021	12	15	0	0
206	164167	16203	WGSCN	KUR	ICF NON AC	26/06/2021	09/07/2021	13	15	0	0
207	104268	10261	WGSCN	KUR	ICF NON AC	28/06/2021	16/07/2021	18	15	3	16266.81
208	054269	05428	GS	WAT	ICF NON AC	15/07/2021	23/07/2021	8	15	0	0
209	054268	05432	GS	WAT	ICF NON AC	15/07/2021	24/07/2021	9	15	0	0
210	184153	17413	LWS	KUR	LHB NON AC	26/05/2021	28/07/2021	63	20	43	233157.61
211	171659	17106	LWACCN	KUR	LHB AC	08/06/2021	29/07/2021	51	20	31	168090.37
212	18908		MEMUDMC	KUR	ICF NON AC	07/04/2021	29/07/2021	113	15	98	531382.46
213	108601		WGSCZ	KUR	ICF NON AC	28/06/2021	30/07/2021	32	15	17	92178.59
214	051210	05806	LWCBAC	KUR	LHB AC	30/04/2021	30/07/2021	91	20	71	384981.17

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
215	081323	07151	WGSCZACJ	KUR	ICF AC	05/03/2021	31/07/2021	148	20	128	694050.56
216	124190	12410	GS	KUR	ICF NON AC	03/04/2021	03/08/2021	122	15	107	580182.89
217	134359	13706	GSLRD	WAT	ICF NON AC	01/07/2021	06/08/2021	36	15	21	113867.67
218	184237	18407	LS	KUR	LHB NON AC	29/06/2021	09/08/2021	41	20	21	113867.67
219	074283	07227	WGSCN	WAT	ICF NON AC	02/08/2021	09/08/2021	7	15	0	0
220	184235	18212	LWSCN	KUR	LHB NON AC	29/06/2021	11/08/2021	43	20	23	124712.21
221	184166	18408	LS	KUR	LHB NON AC	08/06/2021	11/08/2021	64	20	44	238579.88
222	108708		GSLRD	KUR	ICF NON AC	05/07/2021	12/08/2021	38	15	23	124712.21
223	104280	10269	WGSCN	WAT	ICF NON AC	05/07/2021	13/08/2021	39	15	24	130134.48
224	143858		LWLRRM	KUR	LHB AC	15/06/2021	16/08/2021	62	20	42	227735.34
225	183068	17115	LWACCN	WAT	LHB AC	29/06/2021	16/08/2021	48	20	28	151823.56

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
226	054224	05413	GS	KUR	ICF NON AC	11/06/2021	17/08/2021	67	15	52	281958.04
227	124317	12270	WGSCN	KUR	ICF NON AC	15/06/2021	20/08/2021	66	15	51	276535.77
228	144401	14423	GS	WAT	ICF NON AC	07/07/2021	24/08/2021	48	15	33	178934.91
229	184178	18416	LS	KUR	LHB NON AC	15/06/2021	25/08/2021	71	20	51	276535.77
230	124250	11706	GSLRD	KUR	ICF NON AC	22/04/2021	31/08/2021	131	15	116	628983.32
231	114124	11802	WGCB	KUR	ICF NON AC	25/05/2021	01/09/2021	99	15	84	455470.68
232	054288	05403	GS	WAT	ICF NON AC	03/08/2021	02/09/2021	30	15	15	81334.05
233	184258	18226	LWSCN	KUR	LHB NON AC	13/07/2021	03/09/2021	52	20	32	173512.64
234	101286	09059	WGACCW	KUR	ICF AC	01/07/2021	07/09/2021	68	20	48	260268.96
235	042426		WGSCN	WAT	ICF NON AC	30/08/2021	09/09/2021	10	15	0	0
236	041268	03105	WGACCN	WAT	ICF AC	06/08/2021	13/09/2021	38	20	18	97600.86
237	034155	03238	WGSCN	WAT	ICF NON AC	02/09/2021	15/09/2021	13	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
238	071322	06108	WGACCN	WAT	ICF AC	07/07/2021	15/09/2021	70	20	50	271113.5
239	100021	10213	SWGSCN	KUR	ICF NON AC	24/06/2021	16/09/2021	84	15	69	374136.63
240	071342	07118	WGACCN	KUR	ICF AC	25/08/2021	20/09/2021	26	20	6	32533.62
241	124475	11709	GSLRD	WAT	ICF NON AC	31/08/2021	20/09/2021	20	15	5	27111.35
242	054342	05275	WGSCN	WAT	ICF NON AC	06/09/2021	21/09/2021	15	15	0	0
243	144488	14429	GS	WAT	ICF NON AC	17/08/2021	22/09/2021	36	15	21	113867.67
244	124334	12502	GS	WAT	ICF NON AC	26/06/2021	23/09/2021	89	15	74	401247.98
245	154399	15418	GS	KUR	ICF NON AC	03/09/2021	24/09/2021	21	15	6	32533.62
246	114234	11408	GS	SBP	ICF NON AC	31/08/2021	28/09/2021	28	15	13	70489.51
247	181163		LS	WAT	LHB NON AC	16/09/2021	30/09/2021	14	20	0	0
248	124382	12272	WGSCN	WAT	ICF NON AC	28/07/2021	30/09/2021	64	15	49	265691.23
249	134462	12443	GS	WAT	ICF NON AC	07/09/2021	30/09/2021	23	15	8	43378.16

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
250	151472	15118	WGACCN	KUR	ICF AC	24/08/2021	05/10/2021	42	20	22	119289.94
251	084340	08425	GS	WAT	ICF NON AC	23/09/2021	05/10/2021	12	15	0	0
252	100028	10001	SWGFAC	KUR	ICF AC	11/09/2021	07/10/2021	26	20	6	32533.62
253	134485	13703	GSLRD	WAT	ICF NON AC	11/09/2021	08/10/2021	27	15	12	65067.24
254	161242	16128	WGACCN	WAT	ICF AC	14/09/2021	13/10/2021	29	20	9	48800.43
255	074381	07225	WGSCN	KUR	ICF NON AC	08/10/2021	21/10/2021	13	15	0	0
256	151486	15125	WGACCN	KUR	ICF AC	03/09/2021	23/10/2021	50	20	30	162668.1
257	114285	11615	WGSCZ	KUR	ICF NON AC	25/09/2021	25/10/2021	30	15	15	81334.05
258	081394	07906	LWACCN	KUR	LHB AC	16/08/2021	26/10/2021	71	20	51	276535.77
259	114230	10244	WGSCN	WAT	ICF NON AC	23/08/2021	27/10/2021	65	15	50	271113.5
260	081445	08104	WGACCN	KUR	ICF AC	03/09/2021	28/10/2021	55	20	35	189779.45
261	164289	16434	GS	KUR	ICF NON AC	18/10/2021	28/10/2021	10	15	0	0
262	114339	11715	GSLRD	WAT	ICF NON AC	23/10/2021	29/10/2021	6	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
263	071360	06076	WGCWNAC	KUR	ICF AC	13/09/2021	02/11/2021	50	20	30	162668.1
264	128602		WGSCZ	WAT	ICF NON AC	30/08/2021	05/11/2021	67	15	52	281958.04
265	151493	15135	WGACCN	SBP	ICF AC	22/09/2021	08/11/2021	47	20	27	146401.29
266	141370	14053	WGACCW	KUR	ICF AC	01/11/2021	16/11/2021	15	20	0	0
267	071379	07117	WGACCN	SBP	ICF AC	04/10/2021	16/11/2021	43	20	23	124712.21
268	104395	10434	GS	KUR	ICF NON AC	11/10/2021	16/11/2021	36	15	21	113867.67
269	141371	13861	LWLRRM	WAT	LHB AC	19/10/2021	18/11/2021	30	20	10	54222.7
270	134527	12448	GS	WAT	ICF NON AC	06/11/2021	18/11/2021	12	15	0	0
271	094419	09203	WGSCN	KUR	ICF NON AC	20/10/2021	23/11/2021	34	15	19	103023.13
272	164311	16401	GS	WAT	ICF NON AC	09/11/2021	24/11/2021	15	15	0	0
273	164325	16420	GS	SBP	ICF NON AC	18/11/2021	26/11/2021	8	15	0	0
274	071376	07114	WGACCN	WAT	ICF AC	05/10/2021	29/11/2021	55	20	35	189779.45
275	100036	10214	SWGSCN	KUR	ICF NON AC	02/11/2021	29/11/2021	27	15	12	65067.24

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
276	141355	14105	WGACCN	WAT	ICF AC	03/09/2021	30/11/2021	88	20	68	368714.36
277	098623		WGSCZ	KUR	ICF NON AC	24/11/2021	30/11/2021	6	15	0	0
278	18944		MEMUTC	KUR	ICF NON AC	04/09/2021	04/12/2021	91	15	76	412092.52
279	164304	16804	WGCB	SBP	ICF NON AC	08/11/2021	06/12/2021	28	15	13	70489.51
280	044460	03415	GS	WAT	ICF NON AC	02/12/2021	07/12/2021	5	15	0	0
281	114377	11205	WGSCN	KUR	ICF NON AC	06/11/2021	08/12/2021	32	15	17	92178.59
282	114231	11212	WGSCN	SBP	ICF NON AC	31/08/2021	08/12/2021	99	15	84	455470.68
283	081460	08136	WACCNH	KUR	ICF AC	07/10/2021	09/12/2021	63	20	43	233157.61
284	084350	08714	GSRD	KUR	ICF NON AC	14/09/2021	11/12/2021	88	15	73	395825.71
285	182155		LWSCN	KUR	LHB NON AC	13/12/2021	17/12/2021	4	20	0	0
286	054458	05224	WGSCN	WAT	ICF NON AC	15/12/2021	17/12/2021	2	15	0	0
287	124591	12711	GSLRD	WAT	ICF NON AC	10/09/2021	17/12/2021	98	15	83	450048.41

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
288	141375	14111	WGACCN	KUR	ICF AC	18/10/2021	18/12/2021	61	20	41	222313.07
289	120001	12059	SWGACCW	KUR	ICF AC	15/11/2021	23/12/2021	38	20	18	97600.86
290	051270	05151	WGSCZAC	WAT	ICF AC	16/12/2021	30/12/2021	14	20	0	0
291	121366	12058	WGACCW	SBP	ICF AC	01/12/2021	31/12/2021	30	20	10	54222.7
292	021156	02851	LWLRRM	KUR	LHB AC	27/12/2021	04/01/2022	8	20	0	0
293	121388	12139	WGACCN	WAT	ICF AC	28/12/2021	06/01/2022	9	20	0	0
294	034261	03410	GS	KUR	ICF NON AC	30/12/2021	08/01/2022	9	15	0	0
295	081493	08102	WGACCN	WAT	ICF AC	24/12/2021	10/01/2022	17	20	0	0
296	081497	08105	WGACCN	KUR	ICF AC	27/12/2021	17/01/2022	21	20	1	5422.27
297	064553	06425	GS	WAT	ICF NON AC	06/01/2022	18/01/2022	12	15	0	0
298	134526	12445	GS	WAT	ICF NON AC	21/10/2021	22/01/2022	93	15	78	422937.06
299	104527	10445	GS	SBP	ICF NON AC	06/01/2022	25/01/2022	19	15	4	21689.08
300	084611	08706	GSLRD	WAT	ICF NON AC	18/01/2022	25/01/2022	7	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
301	171717	17858	LWLRRM	KUR	LHB AC	20/01/2022	28/01/2022	8	20	0	0
302	114369	11218	WGSCN	SBP	ICF NON AC	28/10/2021	29/01/2022	93	15	78	422937.06
303	174391	17215	WGSCN	BSP	ICF NON AC	10/01/2022	29/01/2022	19	15	4	21689.08
304	114367	11413	GS	KUR	ICF NON AC	11/10/2021	05/02/2022	117	15	102	553071.54
305	101349	10124	WGACCN	WAT	ICF AC	20/01/2022	07/02/2022	18	20	0	0
306	164394	16432	GS	KUR	ICF NON AC	31/01/2022	08/02/2022	8	15	0	0
307	054542	05215	WGSCN	WAT	ICF NON AC	03/02/2022	10/02/2022	7	15	0	0
308	100047	09282	SWGSCN	KUR	ICF NON AC	27/01/2022	10/02/2022	14	15	0	0
309	114551	11402	GS	WAT	ICF NON AC	09/02/2022	14/02/2022	5	15	0	0
310	134680	13404	GS	KUR	ICF NON AC	28/01/2022	14/02/2022	17	15	2	10844.54
311	071424	07056	LWACCW	WAT	LHB AC	18/01/2022	16/02/2022	29	20	9	48800.43
312	061329	06105	WGACCN	WAT	ICF AC	19/01/2022	18/02/2022	30	20	10	54222.7

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
313	101353	10111	WGACCN	SBP	ICF AC	31/01/2022	21/02/2022	21	20	1	5422.27
314	094544	09410	GS	KUR	ICF NON AC	02/02/2022	21/02/2022	19	15	4	21689.08
315	181876		LWS	KUR	LHB NON AC	11/02/2022	22/02/2022	11	20	0	0
316	074645	07404	GS	WAT	ICF NON AC	08/02/2022	23/02/2022	15	15	0	0
317	111461	11114	LWACCN	WAT	LHB AC	25/01/2022	28/02/2022	34	20	14	75911.78
318	094511	09211	WGSCN	SBP	ICF NON AC	24/01/2022	28/02/2022	35	15	20	108445.4
319	051290	05109	WGACCN	KUR	ICF AC	16/02/2022	08/03/2022	20	20	0	0
320	064663	06209	WGSCN	KUR	ICF NON AC	05/03/2022	10/03/2022	5	15	0	0
321	134786	13414	GS	WAT	ICF NON AC	08/02/2022	11/03/2022	31	15	16	86756.32
322	134801	13716	GSLRD	KUR	ICF NON AC	16/02/2022	15/03/2022	27	15	12	65067.24
323	074697	07205	WGSCN	KUR	ICF NON AC	07/03/2022	16/03/2022	9	15	0	0
324	141478	14851	LWLRRM	WAT	LHB AC	12/03/2022	18/03/2022	6	20	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
325	141479	14026	WGFCWAC	KUR	ICF AC	08/03/2022	24/03/2022	16	20	0	0
326	074707	06608	WGSCZ	SBP	ICF NON AC	24/02/2022	30/03/2022	34	15	19	103023.13
327	114675	11418	GS	SBP	ICF NON AC	22/03/2022	30/03/2022	8	15	0	0
328	084758	08712	GSRD	BBS	ICF NON AC	17/03/2022	01/04/2022	15	15	0	0
329	114680	11428	GS	VSKP	ICF NON AC	26/02/2022	02/04/2022	35	15	20	108445.4
330	164467	16702	GSLRD	VSKP	ICF NON AC	17/03/2022	02/04/2022	16	15	1	5422.27
331	164470	16218	WGSCN	VSKP	ICF NON AC	26/03/2022	05/04/2022	10	15	0	0
332	071459	07139	WACCNH	BBS	ICF AC	22/03/2022	07/04/2022	16	20	0	0
333	051305	05054	WGACCW	VSKP	ICF AC	28/03/2022	11/04/2022	14	20	0	0
334	195915		LWSCN	PURI	LHB NON AC	05/04/2022	16/04/2022	11	20	0	0
335	194960		LWS	PURI	LHB NON AC	05/04/2022	20/04/2022	15	20	0	0
336	193546		LWS	PURI	LHB NON AC	20/04/2022	22/04/2022	2	20	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
337	194951		LWS	PURI	LHB NON AC	19/04/2022	25/04/2022	6	20	0	0
338	121532	12001	WGFAC	VSKP	ICF AC	17/03/2022	26/04/2022	40	20	20	108445.4
339	061195		WGSCN	VSKP	ICF NON AC	16/04/2022	27/04/2022	11	15	0	0
340	194674		LWACCW	PURI	LHB AC	05/04/2022	28/04/2022	23	20	3	16266.81
341	134961	13428	GS	VSKP	ICF NON AC	22/04/2022	30/04/2022	8	15	0	0
342	195937		LWSCN	PURI	LHB NON AC	29/04/2022	12/05/2022	13	20	0	0
343	028154		WGSCZAC	PURI	ICF AC	02/05/2022	16/05/2022	14	20	0	0
344	094649	09210	WGSCN	SBP	ICF NON AC	06/05/2022	18/05/2022	12	15	0	0
345	134959	13417	GS	BBS	ICF NON AC	19/04/2022	19/05/2022	30	15	15	81334.05
346	114817	11214	WGSCN	BBS	ICF NON AC	23/05/2022	26/05/2022	3	15	0	0
347	021174	01153	WGSCZAC	SBP	ICF AC	10/05/2022	27/05/2022	17	20	0	0
348	154675	15218	WGSCN	PURI	ICF NON AC	10/05/2022	30/05/2022	20	15	5	27111.35

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
349	154657	15202	WGSCN	VSKP	ICF NON AC	04/05/2022	06/06/2022	33	15	18	97600.86
350	154021		GS	PURI	ICF NON AC	02/06/2022	16/06/2022	14	15	0	0
351	100069	10104	SWGACCN	BBS	ICF AC	18/05/2022	16/06/2022	29	20	9	48800.43
352	161320	16106	LWACCN	BBS	LHB AC	17/05/2022	18/06/2022	32	20	12	65067.24
353	071479	07127	LWACCN	PURI	LHB AC	16/05/2022	22/06/2022	37	20	17	92178.59
354	114894	11711	GSLRD	BBS	ICF NON AC	21/06/2022	27/06/2022	6	15	0	0
355	141518	14121	WGACCN	VSKP	ICF AC	11/06/2022	02/07/2022	21	20	1	5422.27
356	018234		WGSCN	PURI	ICF NON AC	04/07/2022	12/07/2022	8	15	0	0
357	028453		GS	SBP	ICF NON AC	05/07/2022	15/07/2022	10	15	0	0
358	163133		LWACCN	VSKP	LHB AC	23/06/2022	16/07/2022	23	20	3	16266.81
359	153088		LWACCW	VSKP	LHB AC	25/06/2022	18/07/2022	23	20	3	16266.81
360	194881		LWSCN	VSKP	LHB NON AC	04/07/2022	18/07/2022	14	20	0	0
361	195873		LWSCN	BBS	LHB NON AC	09/07/2022	20/07/2022	11	20	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
362	161155		WGACCN	BBS	ICF AC	13/07/2022	23/07/2022	10	20	0	0
363	164632	16215	WGSCN	BBS	ICF NON AC	19/07/2022	23/07/2022	4	15	0	0
364	104769	10221	WGSCN	SBP	ICF NON AC	22/07/2022	25/07/2022	3	15	0	0
365	114011		WGSCZ	SBP	ICF NON AC	20/07/2022	26/07/2022	6	15	0	0
366	195667		LWACCN	BBS	LHB AC	20/07/2022	29/07/2022	9	20	0	0
367	064093		WGSCZ	BBS	ICF NON AC	21/07/2022	29/07/2022	8	15	0	0
368	124026		GS	SBP	ICF NON AC	25/07/2022	01/08/2022	7	15	0	0
369	081638	08804	LWCBAC	VSKP	LHB AC	16/07/2022	08/08/2022	23	20	3	16266.81
370	114984	11229	WGSCN	PURI	ICF NON AC	01/08/2022	10/08/2022	9	15	0	0
371	194925		LWSCN	BBS	LHB NON AC	13/08/2022	23/08/2022	10	20	0	0
372	094004		GS	BBS	ICF NON AC	12/08/2022	23/08/2022	11	15	0	0
373	121633	12002	WGFAC	PURI	ICF AC	01/08/2022	24/08/2022	23	20	3	16266.81

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
374	061194		WGSCZ	PURI	ICF NON AC	17/08/2022	30/08/2022	13	15	0	0
375	111178		WGSCZAC	PURI	ICF AC	22/08/2022	31/08/2022	9	20	0	0
376	064900	06205	WGSCN	SBP	ICF NON AC	22/08/2022	05/09/2022	14	15	0	0
377	194843		LWACCN	PURI	LHB AC	25/08/2022	08/09/2022	14	20	0	0
378	193373		LWSCZDAC	VSKP	LHB AC	05/09/2022	17/09/2022	12	20	0	0
379	064001		GS	VSKP	ICF NON AC	22/09/2022	28/09/2022	6	15	0	0
380	121652	12052	LWACCW	PURI	LHB AC	16/09/2022	30/09/2022	14	20	0	0
381	196874		LWSCN	PURI	LHB NON AC	24/09/2022	30/09/2022	6	20	0	0
382	194919		LWSCN	PURI	LHB NON AC	30/09/2022	11/10/2022	11	20	0	0
383	193376		LWSCZDAC	VSKP	LHB AC	07/10/2022	14/10/2022	7	20	0	0
384	084010		WGSCN	SBP	ICF NON AC	28/09/2022	14/10/2022	16	15	1	5422.27
385	084102		WGSCN	VSKP	ICF NON AC	30/09/2022	17/10/2022	17	15	2	10844.54

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
386	104031		GS	PURI	ICF NON AC	12/10/2022	18/10/2022	6	15	0	0
387	104134		WGSCN	PURI	ICF NON AC	15/10/2022	19/10/2022	4	15	0	0
388	041391	04102	WGACCN	VSKP	ICF AC	15/10/2022	20/10/2022	5	20	0	0
389	194851		LWACCN	PURI	LHB AC	26/09/2022	22/10/2022	26	20	6	32533.62
390	104032		WGSCN	PURI	ICF NON AC	18/10/2022	22/10/2022	4	15	0	0
391	151302		WGACCN	PURI	ICF AC	13/10/2022	28/10/2022	15	20	0	0
392	134057		WGSCN	PURI	ICF NON AC	28/09/2022	28/10/2022	30	15	15	81334.05
393	114025		WGSCN	PURI	ICF NON AC	13/10/2022	29/10/2022	16	15	1	5422.27
394	195896		LWSCN	PURI	LHB NON AC	03/11/2022	12/11/2022	9	20	0	0
395	134023		WGSCN	PURI	ICF NON AC	27/10/2022	15/11/2022	19	15	4	21689.08
396	195948		LWLRRM	PURI	LHB AC	10/11/2022	17/11/2022	7	20	0	0
397	144213		GS	VSKP	ICF NON AC	04/11/2022	25/11/2022	21	15	6	32533.62

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
398	171531		WGSCZACJ	BBS	ICF AC	11/11/2022	26/11/2022	15	20	0	0
399	196540		LWACCN	PURI	LHB AC	17/11/2022	30/11/2022	13	20	0	0
400	196556		LWCBAC	PURI	LHB AC	23/11/2022	30/11/2022	7	20	0	0
401	064092		WGSCZ	SBP	ICF NON AC	24/11/2022	30/11/2022	6	15	0	0
402	125098	12223	LWSCN	PURI	LHB NON AC	21/11/2022	01/12/2022	10	20	0	0
403	094104		GSLRD	SBP	ICF NON AC	26/11/2022	05/12/2022	9	15	0	0
404	044028		WGSCN	VSKP	ICF NON AC	02/12/2022	07/12/2022	5	15	0	0
405	104104		WGSCN	PURI	ICF NON AC	25/11/2022	08/12/2022	13	15	0	0
406	151263		WGSCN	BBS	ICF NON AC	25/11/2022	12/12/2022	17	15	2	10844.54
407	141186		WGACCN	SBP	ICF AC	01/12/2022	15/12/2022	14	20	0	0
408	064119		GSLRD	VSKP	ICF NON AC	22/12/2022	28/12/2022	6	15	0	0
409	154019		WGSCN	VSKP	ICF NON AC	20/12/2022	28/12/2022	8	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
410	195902		LWSCN	PURI	LHB NON AC	14/12/2022	28/12/2022	14	20	0	0
411	044076		GSLRD	VSKP	ICF NON AC	22/12/2022	30/12/2022	8	15	0	0
412	196880		LWSCN	PURI	LHB NON AC	28/12/2022	03/01/2023	6	20	0	0
413	134024		WGSCN	PURI	ICF NON AC	27/12/2022	10/01/2023	14	15	0	0
414	196532		LWSCN	PURI	LHB NON AC	29/12/2022	11/01/2023	13	20	0	0
415	084254		WGSCZ	PURI	ICF NON AC	04/01/2023	16/01/2023	12	15	0	0
416	154142		WGSCZ	BBS	ICF NON AC	05/01/2023	16/01/2023	11	15	0	0
417	161218		WGACCN	VSKP	ICF AC	03/01/2023	18/01/2023	15	20	0	0
418	201015		LWSCN	VSKP	LHB NON AC	16/01/2023	24/01/2023	8	20	0	0
419	164286		GS	VSKP	ICF NON AC	19/01/2023	27/01/2023	8	15	0	0
420	134148		WGSCN	BBS	ICF NON AC	23/01/2023	28/01/2023	5	15	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
421	125136	12234	LWSCN	PURI	LHB NON AC	23/01/2023	04/02/2023	12	20	0	0
422	154044		WGSCN	BBS	ICF NON AC	21/01/2023	06/02/2023	16	15	1	5422.27
423	114260		GS	VSKP	ICF NON AC	06/02/2023	10/02/2023	4	15	0	0
424	144212		GS	SBP	ICF NON AC	31/01/2023	13/02/2023	13	15	0	0
425	164312		GS	VSKP	ICF NON AC	09/02/2023	14/02/2023	5	15	0	0
426	195880		LWSCN	VSKP	LHB NON AC	08/02/2023	14/02/2023	6	20	0	0
427	194949		LWSCN	BBS	LHB NON AC	08/02/2023	14/02/2023	6	20	0	0
428	194947		LWSCN	BBS	LHB NON AC	13/02/2023	15/02/2023	2	20	0	0
429	074167		WGSCN	SBP	ICF NON AC	11/02/2023	20/02/2023	9	15	0	0
430	134527		GS	VSKP	ICF NON AC	13/02/2023	20/02/2023	7	15	0	0
431	161521	16001	LWFAC	BBS	LHB AC	20/02/2023	25/02/2023	5	20	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
432	195811		LWSCN	PURI	LHB NON AC	23/02/2023	27/02/2023	4	20	0	0
433	164150		WGSCN	VSKP	ICF NON AC	24/02/2023	07/03/2023	11	15	0	0
434	071273		WGACCN	BBS	ICF AC	23/02/2023	09/03/2023	14	20	0	0
435	184079		VPH	PURI	ICF NON AC	03/03/2023	10/03/2023	7	15	0	0
436	098623		WGSCZ	PURI	ICF NON AC	04/03/2023	15/03/2023	11	15	0	0
437	201400		LWSCN	PURI	LHB NON AC	10/03/2023	16/03/2023	6	20	0	0
438	118601		WGSCZ	VSKP	ICF NON AC	04/03/2023	16/03/2023	12	15	0	0
439	104243		GS	SBP	ICF NON AC	28/02/2023	16/03/2023	16	15	1	5422.27
440	121697	12148	LWACCN	VSKP	LHB AC	06/03/2023	22/03/2023	16	20	0	0
441	104258		WGSCN	SBP	ICF NON AC	14/03/2023	22/03/2023	8	15	0	0
442	124283		WGSCN	KUR	ICF NON AC	13/03/2023	22/03/2023	9	15	0	0
443	194831		LWLRRM	PURI	LHB AC	18/03/2023	24/03/2023	6	20	0	0

Annexure- 1.1
Loss of earning capacity of coaches due to POH cycle time exceeding stipulated days in CRW/MCS
(Reference Paragraph- 1.9.4)

Sl. No.	Coach No.	Old coach No	Coach Type	Depot	AC/Non-AC	Workshop In_Date	Workshop Traffic Out date (TRF_OUT)	Cycle days of repair	Stipulated cycle days	Detention beyond stipulated days	Loss of earning capacity @ ₹ 5422.27 per day
444	091375	09061	LWACCW	VSKP	LHB AC	09/03/2023	25/03/2023	16	20	0	0
445	134285		GS	VSKP	ICF NON AC	06/03/2023	25/03/2023	19	15	4	21689.08
446	193369		LWSCZDAC	VSKP	LHB AC	16/03/2023	27/03/2023	11	20	0	0
447	201358		LWSCN	PURI	LHB NON AC	25/03/2023	31/03/2023	6	20	0	0
									Total	**14191**	**76947433.57**

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
1	30921995	Brake beam without bush for bmab coaches	Safety	A	7200	1366	4703	6069	5661	84.3	14/09/2022
2	33500691	Secondary spring for lhb non-ac coaches (outer)	No	A	335	3	176	179	176	53.4	
3	33501841	Brake calliper unit	No	A	118	8	82	90	87	76.3	
4	45170113	Valve regulated lead acid batteries for train lighting application of 110 v dc	No	A	660	1	583	584	583	88.5	
5	45178318	Battery box suitable for 110v dc tl system without fibre glass tray	No	A	1770	77	1200	1277	1032	72.1	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
6	47900349	Self priming mono block pump assembly with controller for lhb coaches	No	A	520	20	411	431	402	82.9	
7	75400250	Decorative thermosetting synthetic resin bonded laminated sheet	No	A	11000	349	9779	10128	10037	92.1	
8	80034810	Servogem rr-3 (ioc) grease for application on axle box cylindrical roller bearing	No	A	92520	12922	76986	89908	85175	97.2	12/01/2021 and 10/04/2023
9	80090400	Super ior kerosene oil (sko)	No	A	112000	8667	98493	107160	107186	95.7	14/09/2022
10	45133979	Led based emergency light unit	No	B	2700	4	1729	1733	1465	64.2	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
11	90221035	M channels 100 mm	No	B	28	0.341	0.12	0.461	0.401	1.6	
12	30210392	Draw hook for high capacity draft gear of coaching stock	No	B	465	143	240	383	376	82.4	
13	30920991	Top foot plate for icf	No	B	3600	1086	2235	3321	3320	92.3	15/04/2021, 09/02/2023 and 10/04/2023
14	33560614	Saloon sliding doors for lhb 1st ac	No	B	5	4	0	4	3	80.0	
15	33572537	Polycarbonate glass unit for fixed window	No	B	3220	469	2539	3008	2828	93.4	
16	71010350	Brushes paints	No	B	6600	921	3574	4495	3659	68.1	
17	90350212	Ms flat 25 x6 mm	No	B	58	0	20.955	20.955	12.112	36.1	
18	30017208	Rubber stopper for main door	No	C	14080	4917	4000	8917	7435	63.3	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
19	30054229	Bracket for lower spring	No	C	1489	1305	0	1305	1272	87.6	
20	30060461	Sleeve complete for centre piv	No	C	275	59	169	228	203	82.9	
21	30164047	Roof ventilator for coaches	No	C	348	120	135	255	178	73.3	
22	30216023	Draft key cotter	No	C	6840	300	5350	5650	5281	82.6	
23	30321335	Pull rod for 16t icf bogies	No	C	281	84	140	224	200	79.7	
24	30446119	Modified coach watering inlet (nozzle/connector) with strainer	No	C	2670	520	0	520	519	19.5	09/02/2023
25	30500035	Additional air reseervoir (40 ltr.)	No	C	31	8	0	8	7	25.8	29-06-2021 and 14-09-2022
26	30547015	Frp housing for emergency openable window of non-ac coaches	No	C	6776	85	6160	6245	5491	92.2	09/02/2023

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
27	30548860	Double seated window glass	No	C	51	25	0	25	24	49.0	
28	30638665	Liquid soap container	No	C	5765	2236	2400	4636	3994	80.4	11/10/2022
29	33500289	Axle cover normal	Safety	C	241	38	126	164	132	68.0	
30	33500435	Sleeve lw 03187	Must change	C	5412	99	3294	3393	2641	62.7	
31	33500472	Bush(caliper hanger)	No	C	7158	340	5760	6100	3565	85.2	29/06/2021
32	33500496	Locking pin (threaded) control arm	Must change	C	26256	3160	16711	19871	16633	75.7	
33	33500575	Stop plate(bolster)	Must change	C	3507	258	2855	3113	2380	88.8	
34	33509890	Set of high tensile bolts for lhb coaches	No	C	420	225	180	405	400	96.4	09/02/2023
35	33569873	Door handle for lavatory door of lhb coach	No	C	1021	650	300	950	515	93.0	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
36	33572562	Glass unit for hopper window upper	No	C	700	596	0	596	244	85.1	
37	33595422	Snack table for 1st ac lhlhb coach	No	C	343	225	60	285	260	83.1	
38	36900254	Thread linen black	No	C	1491	792	0	792	696	53.1	
39	38034645	Axle end steel high tensile cap screws	Safety	C	2280	1200	0	1200	1200	52.6	
40	43150019	Bottle cooler 90 ltrs capacity	No	C	10	6	3	9	8	90.0	
41	45014279	Battery charging terminal cum fuse box	No	C	480	249	210	459	345	95.6	
42	47810002	Automatic voltage regulator	No	C	23	4	0	4	4	17.4	
43	48991363	Double inlet centrifugal	Vital	C	197	55	116	171	167	86.8	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
44	73030715	Hexagonal head bolt with nut of product grade c, size m12 x 65	Vital	C	10870	300	5213	5513	7650	50.7	
45	75035820	Vinyle hose reinforced	No	C	6383	4870	0	4870	3270	76.3	
46	75321350	Polymorised floor topping	No	C	488	254	195	449	449	92.0	
47	75480001	Sealing rubber for double	No	C	6970	1947	200	2147	2146	30.8	14/09/2022 and 09/02/2023
48	77419893	Unsaturated polyester based knifing putty [two packs], colour- grey,	No	C	912	100	590	690	690	75.7	
49	30011085	Special screws for axle box guide arrangement	Safety	C	5820	2516	2030	4546	4216	78.1	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
50	30257050	Pin complete assembly for vic	No	C	2010	659	1200	1859	1444	92.5	
51	30520034	Toilet paper holder	No	C	284	75	0	75	60	26.4	
52	33500540	Can 1268554 ver 03	No	C	1554	67	977	1044	808	67.2	29/06/2021
53	33509530	Spring guide upper	No	C	350	52	192	244	149	69.7	
54	33568327	Hinge complete 3 10113.0	No	C	141	77	0	77	53	54.6	
55	33568364	Hinge complete	No	C	218	120	0	120	100	55.0	
56	33571144	Filter for water of sanitation	No	C	39	9	15	24	22	61.5	
57	33590199	Screw joint for brake pipe	No	C	142	75	0	75	67	52.8	
58	33990025	Ht hex head bolt m-16x56	No	C	6632	5997	0	5997	4965	90.4	
59	43055266	Voltmeter moving coil type	No	C	140	22	0	22	18	15.7	
60	45147012	S.less alu cerimp socket	No	C	10000	6297	0	6297	5073	63.0	

Annexure- 1.2
Statement of availability of materials in CRW/MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM DESCRIPTION	Vital_Safety _Must change	ABC category	Total of AAC of 2020-21 to 2022-23	Opening balance in Apr-2020	Total procurement during 3 years	Availabile stock (OB+ procured)	Quantity issued during three years	material availability as % of AAC	Date of Complaint of users about material shortage (material causing concern)
61	62303910	Seamless tube (hfs) -65 mm nominal bore	No	D	288	0	0	0	0	0.0	
62	31152053	Trip coil bhel drg. No. 3	No	D	24	0	8	8	5	33.3	
63	31152077	Reset coil	No	D	18	0	6	6	5	33.3	

Annexure- 1.3
Statement of availability of Vital/Safety and Must Change Items in CRW MCS
(Reference Paragraph- 1.9.7.3)

Sl. No.	PL_NO	ITEM_DESCRIPTION	Vital_Safety_Must change item	ABC category	Total of AAC during 2020-23	Opening Balance Apr-2020	Receipt in the 3 years	Available stock (Opening Balance+ Receipt)	Issued during 3 years	material availability as % of AAC
1	30921995	Brake beam without bush for bmab coaches	Safety	A	7200	1366	4703	6069	5661	84.3
2	33500289	Axle cover normal	Safety	C	241	38	126	164	132	68.0
3	33500435	Sleeve lw 03187	Must change	C	5412	99	3294	3393	2641	62.7
4	33500496	Locking pin (threaded) control arm	Must change	C	26256	3160	16711	19871	16633	75.7
5	33500575	Stop plate(bolster)	Must change	C	3507	258	2855	3113	2380	88.8
6	38034645	Axle end steel high tensile cap screws, size: 1 inch dia	Safety	C	2280	1200	0	1200	1200	52.6
7	48991363	Double inlet centrifugal	Vital	C	197	55	116	171	167	86.8
8	73030715	Hexagonal head bolt with nut of product grade c, size m12 x 65	Vital	C	10870	300	5213	5513	7650	50.7
9	30011085	Special screws for axle box guide arrangement	Safety	C	5820	2516	2030	4546	4216	78.1

Annexure- 1.3 Statement of availability of Vital/Safety and Must Change Items in CRW MCS (Reference Paragraph- 1.9.7.3)										
Sl. No.	**PL_NO**	**ITEM_DESCRIPTION**	**Vital_Safety_Must change item**	**ABC category**	**Total of AAC during 2020-23**	**Opening Balance Apr-2020**	**Receipt in the 3 years**	**Available stock (Opening Balance+ Receipt)**	**Issued during 3 years**	**material availability as % of AAC**
10	30070442	Locking plate for anchor link screws	Safety	C	78900	39651	48680	88331	61651	112.0
11	36431552	Sink wash d type	Vital	D	0	0	0	0	0	100.0
12	33500010	Ball joint traction lever	Safety	A	7626	1	8625	8626	7836	113.1
13	48991089	60 kva transformer,rcf spec. No. Edts076	Vital	A	12	6	44	50	49	416.7
14	33509001	Secondary vertical damper to drawing/specification rcf	Safety	B	1142	148	1098	1246	1177	109.1
15	30017191	Top liner of hytrel washer for primary suspension	Safety	B	10000	858	9400	10258	9000	102.6
16	33612717	Gangway bridge mounting	Must change	B	399	36	451	487	466	122.1
17	45212156	Pump fuel for cummins die	Vital	B	4	5	0	5	5	125.0
18	33581423	Entrance hand rail	Must change	C	66	75	0	75	35	113.6
19	33599403	Nylock nut, m-12 stainless steel	Must change	C	65780	4749	99917	104666	62599	159.1

Abbreviations

Abbreviations

Abbreviation	Full Form
AAC	Anticipated Annual Consumption
AE	Actual Expenditure
AMC	Annual Maintenance Contract
BBS	Bhubaneswar
BE	Budget Estimate
BG	Broad Gauge
BSES	Baseline Socio-Economic Survey
C&AG	Comptroller and Auditor General
CBC	Centre Buffer Coupler
CBR	Coach Body Repair
CMM Module	Coach Maintenance Management Module
COFMOW	Central Organisation for Modernisation of Workshops
COIS	Coaching Operations Information System
COP	Cover over Platform
CR	Central Railway
CRW/MCS	Carriage Repair Workshop, Mancheswar
CSMT	Chhatrapati Shivaji Maharaj Terminus
CWE	Chief Workshop Engineer
CWM	Chief Workshop Manager
DCF	Discounted Cash Flow
DEMU	Diesel Electric Multiple Unit
D&G	Direction and General
DN	Down
Dy.CME	Deputy Chief Mechanical Engineer
Dy.CMM	Deputy Chief Materials Manager
ECoR	East Coast Railway
ESP	Engineering Scale Plan
FOB	Foot Over Bridge
GM	General Manager
GAD	General Arrangement Drawing
GCC	General Conditions of Contract
GoM	Government of Maharashtra
HQ	Headquarters
ICF	Integral Coach Factory
ICMS	Integrated Coaching Management System
IDEA	International Data Encryption Algorithm
IOH	Intermediate Overhauling
IR	Indian Railways
IRCA	Indian Railway Conference Association

Abbreviation	Full Form
IRCON	Ircon International Limited
IRSDC	Indian Railway Station Development Corporation
LHB	Linke Hofmann Busch
LOA	Letter of Acceptance
MCDO	Monthly Confidential Demi Official
MCGM	Municipal Corporation of Greater Mumbai
MCS	Mancheswar
MEMU	Mainline Electric Multiple Unit
M&P	Machine and Plant
MMRDA	Mumbai Metropolitan Region Development Authority
MoR	Ministry of Railways
MPT	Mumbai Port Trust
MRVC	Mumbai Railway Vikas Corporation Limited
MUTP	Mumbai Urban Transport Project
NCO	Neutral Control Organization
NOC	No Objection Certificate
NTC	National Textile Corporation
NTXR	Neutral Train Examiner
OCV	Other Coaching Vehicles
OHE	Over Head Equipment
PAM	Punctuality Assessment and Monitoring
PAPs	Project Affected Persons
PCDO	Periodical Confidential Demi Official
PCME	Principal Chief Mechanical Engineer
PCVs	Passenger Coaching Vehicles
PI	Panel Interlocking
POs	Purchase Orders
POH	Periodical Overhauling
PTC	Proving Test Certificate
PVC	Price Variation Clause
RB	Railway Board
RDSO	Research, Design and Standards Organization
RFCTLARR Act, 2013	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
RITES	Rail India Technical and Economic Service
RLDA	Rail Land Development Authority
ROB	Road Over Bridge
ROR	Rate of Return
RRI	Route Relay Interlocking
R&R	Rehabilitation and Resettlement

Abbreviation	Full Form
SBP	Sambalpur
SIP	Signal Interlocking Plan
SPARC	Society for Promotion of Area Resource Centre
SPV	Special Purpose Vehicles
SS	Shop Schedule
SSE	Senior Section Engineer
S&T	Signal and Telecommunications
TOR	Turn Over Ratio
VSKP	Visakhapatnam
WISE	Workshop Information System
WR	Western Railway
ZRs	Zonal Railways

https://cag.gov.in/en/page-ar-no2-2025