



सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

COMMISSION OF RAILWAY SAFETY



ANNUAL REPORT FOR 2024-2025

BY

CHIEF COMMISSIONER OF RAILWAY SAFETY

NEW DELHI

FOREWORD



As mandated under Section 10 of The Railways Act, 1989 and Section 12 of Metro Railway (Operation & Maintenance) Act, 2002, the Annual Report for the financial year ended on 31.03.2025 is hereby presented by the Chief Commissioner of Railway Safety to the Central Government to be laid before each house of the Parliament. The report highlights the activities of the Commission of Railway Safety during the above mentioned period namely authorization for opening of new Railway lines, doubling of existing lines, gauge conversion works, investigation of serious train accidents, condonation of infringements to schedule of dimensions, sanction of minor works, movement of over dimensional consignments, Introduction of new Rolling Stock and increase in the speed of existing Rolling Stock for operation over Indian Railways and Metro Railways. This Report contains valuable information with respect to measures for improving safety in Indian Railways/Metro Railways working and will be useful for Railway/Metro personnel.

A handwritten signature in black ink, consisting of stylized initials and a surname, written over a horizontal line.

(Janak Kumar Garg)

Chief Commissioner of Railway Safety

PLACE: NEW DELHI

DATE: 24.11.2025

Comparative Performance of the Commission during 2024-25

Activities	FY (2023-24)	FY (2024-25)
Doubling + Additional lines (Kms)	2161	1553.75
New Lines (Kms)	584	577.30
Gauge Conversion (Kms)	191	131.88
Total (DL+GC+NL) (Kms)	2936	2262.93
New Metro lines (Kms)	94.94	101.97
Minor Works (Cases)	1378	1039
Rolling Stock Introduction/Condonation Cases forwarded for sanction of Railway Board	33	38
Periodical Inspections (Kms)	7427	7861.00
Statutory Inquiries (Accident Cases)	08 (Indian Railways) *03 (Metro Railways)	08 (Indian Railways)

*As directed by MoHUA vide letter no. K-14011/01/2023-MRTS-Coord. Dt. 06.03.2023, 01 Accident inquiry of under construction Metro Railway (Bengaluru Metro Railway Corporation) was also carried out by CRS-SC.

SUMMARY OF THE ACTIVITIES OF COMMISSIONERS OF RAILWAY SAFETY (2024-25)

	Name of Activity	Details of Activity	Quantity	Reference (Chapter no.)
I.	Statutory inquiries of serious train accidents entrusted to the commissioners	a) Indian Railways	08	Appendix I
		b) Metro Railways	-	
		c) No. of recommendations in final inquiry reports made out of (a) above	65	
		d) No. of recommendations in final inquiry reports made out of (b) above	-	
II	Statutory Inspections of Lines undertaken by the Commissioners prior to their authorization for opening the line for passenger services	Indian Railways a) New Lines b) Additional Lines c) Gauge Conversion Metro Railways- New Lines a) Metro Railway Kolkata b) MAHA -Metro c) DMRC d) GMRC e) MMRC f) NCRTC g) MPMRC h) BMRC i) UPMRC	577.30 Km 1553.75 Km 131.88 Km 20.38 Km 03.43 Km 01.821 Km 36.069 Km 12.695 Km 13.016 Km 05.26 Km 02.953 Km 06.35 Km	Chapter II and Appendix II
III	Sanction accorded by the Commissioners for new minor works	New Minor Works related with yard remodeling, bridges, signaling interlocking, LC gates etc.	1039 Nos.	Chapter II Para 2.5
IV	Proposals recommended for sanction of Central Government	(a) Introduction of new types of Rolling Stock (b) condonation of Infringement to SoD by Rolling Stock	38 Nos.	Chapter II Para 2.8
V	Periodical Inspections	Periodical Inspections of running lines and other assets of Indian Railways / Metro Railways	7861.00 Km	Chapter II Para 2.9

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Chapter – I

ORGANISATION AND FUNCTIONS

1.1 INTRODUCTION

During British Era, the construction & operation of Railways were entrusted to private companies. Consulting engineers were appointed by the British Government of India to exercise effective control over them. But later on, the Government undertook the construction of Railways. Now the consulting engineers were designated as Government Inspectors. In 1883, their position was statutorily recognized. The power of safety controlling authority remained with Railway Board & Inspectorate office was placed under them.

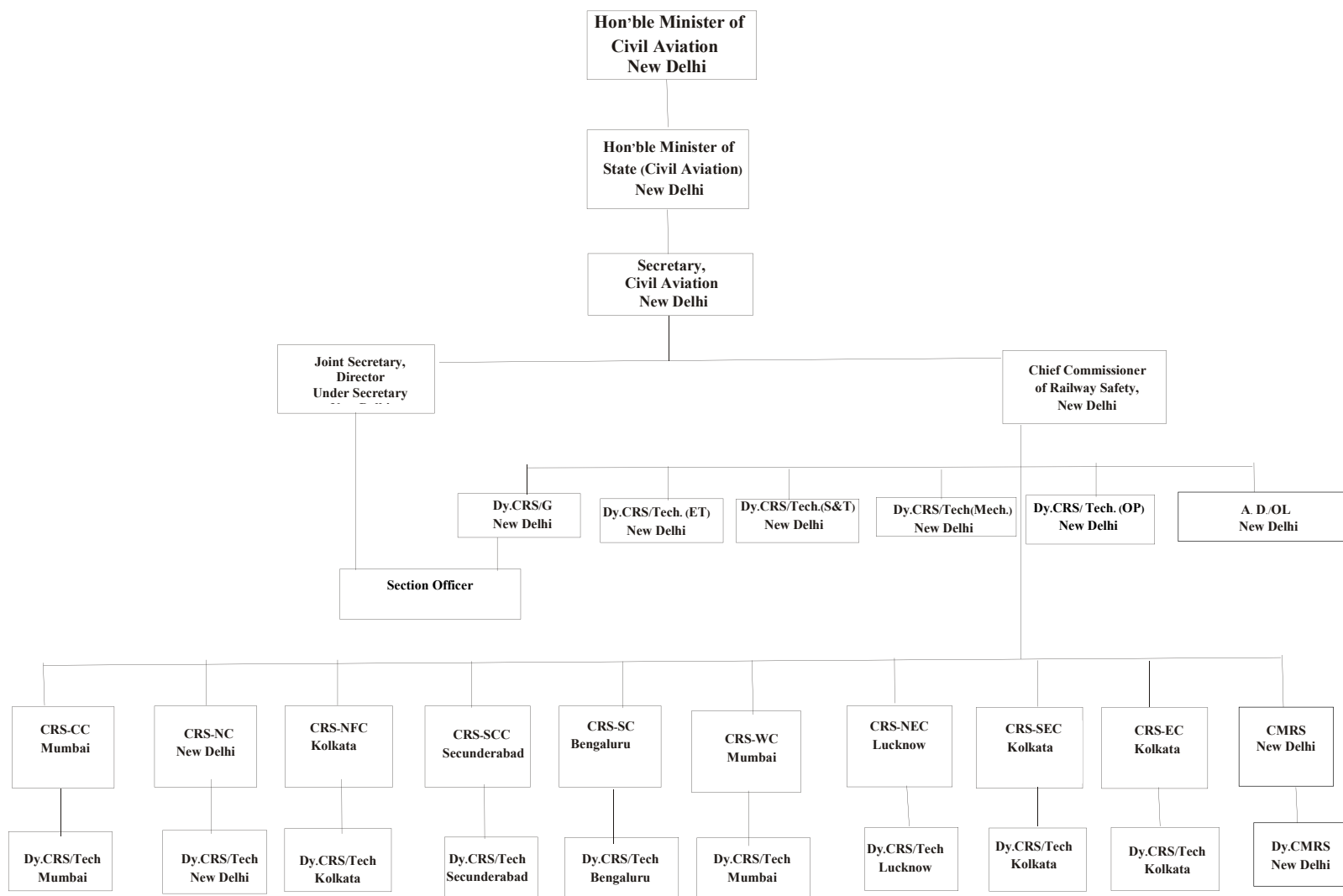
In 1939, the Pacific Locomotive Committee, set up in response to Bihta disaster, recommended that Railway Inspectorate should be separated from the Railway Board. This was based on the principle that those responsible for the inspection of Railways should be independent of the Authority administering the Railways, as contemplated in Section 181(3) of the Government of India Act, 1935. These recommendations were approved by the Legislative Assembly in 1939 and the Council of State in 1940 and were subsequently accepted by the British Government of India. Accordingly, in May 1941, Railway Inspectorate was separated from the Railway Board. Post of Chief Government Inspector of Railways (**CGIR**) was created through whom Government Inspectors of Railways (**GIR**) would report to the Government. Initially, the Inspectorate office was placed under the Department of Communication and now it is under the Ministry of Civil Aviation (**MoCA**).

On 01.11.1961, **CGIR** was re-designated as Commissioner of Railway Safety (**CRS**) and **GIR**, as Additional Commissioners of Railway Safety (**ACRS**).

From June, 1979 designation of **CRS** has been changed to Chief Commissioner of Railway Safety (**CCRS**) and **ACRS** to **CRS**.

Commissioners of Railway Safety (**CRS**) are selected from Indian Railways (**IR**) officers but they do not go back to Railways. Instead, they are absorbed in the Commission of Railway Safety under Ministry of Civil Aviation.

Organizational Chart of Commission of Railway Safety



1.2 ORGANISATIONAL STRUCTURE

1.2.1 The office of the Chief Commissioner of Railway Safety (CCRS), is headquartered at New Delhi and is a part of Ministry of Civil Aviation (MoCA). CCRS acts as a Principal Technical Advisor to Central Government in all matters with which Commissioners are concerned.

1.2.2 There are 09 Commissioners of Railway Safety (CRS) & 01 Commissioner of Metro Railway Safety (CMRS) located at different places across the country looking after the works of different Zonal Railways. Their offices are called Circle Offices. Each Circle Office has 12 to 14 office staff consisting of Sr. Private Secretary (1), Sr. Inspector (Technical) (2), Office Superintendent (1), UDC (2), LDC (2) and Multi-Tasking Staff.

In each Circle, there is one post of Deputy Commissioner of Railway Safety (Dy. CRS) who are from different disciplines of Indian Railways (IR). In 2024-25, distribution of Dy. CRS posts was as follows:

- SC, SCC and SEC are from Civil Engineering stream.
- CC is from Electrical Engineering stream.
- EC, NC, NEC, NF and WC are from Signal & Telecommunication (S&T) Engineering stream.
- Dy. CMRS can be from any stream.

1.2.3 There are two wings in the office of CCRS i.e. **Railway Safety Wing** and **Technical Wing**.

In the **Railway Safety Wing**, there is one Dy. CRS (General) to assist CCRS in day to day official working as well as for maintaining the interface with the Ministry of Railway (MoR) and Ministry of Civil Aviation (MoCA). It has Private Secretary (01), Section Officer (01), Assistant Section Officers (05), Personal Assistant (01), SSA (01), JSA (01) and Multi-Tasking Staff (06).

In the **Technical Wing**, there are 04 Dy. CRS (Technical) of various disciplines (Mechanical, S&T, Electrical Traction and Operating) to assist CCRS and CRS as and when required on technical matters. The cases of introduction & condonation of infringement to IRSOD of Rolling Stock, upon being received from RDSO are also scrutinized by Technical Wing and forwarded to Railway Board for sanction of the Central Government if found in order. This wing works as a think tank and maintains the institutional memory/strength of the Commission of Railway Safety. To assist

the Technical Wing, the requisite staff/officers viz. one Assistant Director (Official Language), Sr. Inspectors (Tech.) (05), Junior Translation Officer (01), Technical Assistants (02), LDC (01), Staff Car Driver (01) and Multi-Tasking Staff (05) are posted.

Dy. CRSs are not statutory authorities. They come from Railways on deputation basis and go back after completion of their deputation period.

1.3 VACANCIES IN THE COMMISSION –

As on 31.03.2025, 01 post of CRS-WC, 01 post of CMRS and 01 posts of Dy. CMRS were vacant.

1.4 INCUMBENCY OF OFFICERS –

1.4.1 Chief Commissioner of Railway Safety, New Delhi

S.No.	Designation	Period	Name (Shri/Smt)
(i)	CCRS	Full Duration	Janak Kumar Garg

1.4.2 Commissioners of Railway Safety (CRS):

S.No.	Circle office	Period	Name of CRS (Shri/Smt)
(i)	CRS-CC	Full Duration	Manoj Arora
(ii)	CRS-EC	Full Duration	Suvomoy Mitra
(iii)	CRS-NC	Full Duration	Dinesh Chand Deshwal
(iv)	CRS-NEC	Full Duration	Pranjeev Saxena
(v)	CRS-NFC	01.04.2024 to 20.06.2024	Janak Kumar Garg (Additional Charge)
		21.06.2024 to 31.03.2025	Sumeet Singhal
(vi)	CRS-SC	Full Duration	Anant Madhukar Chowdhary
(vii)	CRS-SCC	Full Duration	Madhavi
(viii)	CRS -SEC	Full Duration	Brijesh Kumar Mishra
(ix)	CRS-WC	01.04.2024 to 31.10.2024	Ramesh Kumar Sharma
		01.11.2024 to 31.03.2025	Manoj Arora (Additional Charge)
(x)	CMRS-New Delhi	01.04.2024 to 31.03.2025	Janak Kumar Garg (Additional Charge)

*All vacant posts of Commissioners are being looked after under Additional Charge by CCRS/another CRS as per the orders of the Appointments Committee of Cabinet (ACC).

1.4.3 Deputy Commissioners of Railway Safety in CCRS office:

S.No.	Dy .CRS	Period	Name (Shri/Smt).
Railway Safety Wing			
(i)	Dy.CRS (Gen)	01.04.2024 to 09.04.2024	Vacant
		10.04.2024 to 31.03.2025	Avinash Kumar
Technical Wing			
(i)	Mechanical	01.04.2024 to 02.09.2024	Ahmad Nadeem Siddiqui
		03.09.2024 to 31.03.2025	Vacant
(ii)	Operating	01.04.2024 to 08.08-2024	Neelima Singh
		09.08.2024 to 11.02.2025	Vacant
		12.02.2025 to 31.03.2025	Neha Ratnakar
(iii)	Electric Traction	Full Duration	Gyan Prakash Katiyar
(iv)	Signal & Telecom	01.04.2024 to 09.06.2024	Vacant
		10.06.2024 to 31.03.2025	Upendra Kumar Verma

1.4.4 Deputy Commissioners in Circle Offices:

Deputy Commissioner (Signaling & Telecommunication)			
S.No.	Circle office	Period	Name (Shri/Smt.)
(i)	EC	01.04.2024 to 28.07.2024	Sitaram Nandi
		29.07.2024 to 31.03.2025	MI Khan
(ii)	WC	Full Duration	Dev Prakash
(iii)	NFC	Full Duration	Jyotirmoy Ray
(iv)	NC	Full Duration	Deepak Kumar
(v)	NEC	Full Duration	Ashish Pandey
Deputy Commissioner (Civil Engg.)			
(vi)	SEC	01.04.2024 to 14.05.2024	B.S.K Subudhi
		15.05.2024 to 03.12.2024	Vacant
		04.12.2024 to 31.03.2025	Ashutosh Kumar
(vii)	SCC	Full Duration	G. Srinivas Rao
(viii)	SC	Full Duration	Nitish Kumar Ranjan

Deputy Commissioner (Electric Traction)			
(ix)	CC	Full Duration	PK Kataria
Deputy Commissioner of Metro Railway Safety			
(x)	CMRS	Full Duration	Vacant

1.5 JURISDICTIONS OF CIRCLE OFFICES:

1.5.1 As on 31st March, 2025, **Total Route kilometres** of Indian Railways under different circles were as under:

Circle Office	Head Quarter	Route Kms	Railway Administration
CRS-CC	Mumbai	8291.967	CR, WCR & KR
CRS-EC	Kolkata	7299.767	ER & ECR
CRS-NC	New Delhi	7480.30	NR
CRS-NEC	Lucknow	7011.573	NER & NCR
CRS-NFC	Kolkata	4324.15	NFR & MR
CRS-SC	Bengaluru	8816.829	SR & SWR
CRS-SCC	Secunderabad	6625.345 (BG-6548.185) (MG-77.160)	SCR
CRS-SEC	Kolkata	8359.052	SER, SECR & ECoR
CRS-WC	Mumbai	11897.37	WR & NWR
Total Route Kms		70106.353	

1.5.2 As on 31st March, 2025, **Total Route Kilometres** of Metro Railways under different circles were as under:

Name of Circle Office	Head Quarter	Route Kms	Metro Railway Administrations
CMRS -New Delhi	New Delhi	394.269	DMRC
	Gurugram		
	Noida		
	Kanpur	43.893	UPMRCL
	Lucknow		
	Agra		
	Ahmedabad	60.41	GMRCCL
	Nagpur		

	Pune	71.505	Maha Metro Rail Corporation Ltd.
	Mumbai	12.695	Maha Metro Rail Corporation Ltd.
	Mumbai	11.10	Navi Mumbai Metro (CIDCO)
	Mumbai	34.70	MMRDA
	Mumbai	11.40	Mumbai Metro One Private Ltd.
	Jaipur	11.64	Jaipur Metro
	NCRTC	55.271	NCRTC
CRS/CMRS-SC	Bengaluru	76.163	BMRCL
	Kochi	28.10	KMRL
	Chennai	54.50	CMRL
CRS/CMRS-SCC	Hyderabad	69.20	HMRCL
Total Route Kms		934.846	

1.6 DUTIES & FUNCTIONS OF THE COMMISSIONERS OF RAILWAY SAFETY:

1.6.1 As detailed in Section 6, Chapter-III of The Railways Act 1989, the duties of Commissioner of Railway Safety (CRS) are as under: -

- (a) To inspect any Railway with a view to determine whether they are fit to be opened for the public carriage of passengers and to report thereon, to the Central Government as required by or under this Act;
- (b) To make such periodical or other inspections of any Railway or of any Rolling Stock used thereon as the Central Government may direct;
- (c) To make inquiry under this Act into the cause of any accident on a Railway; and
- (d) To discharge such other duties as are conferred on him by or under this Act.

1.6.2 Functions of the Commissioner of Railway Safety/Commissioner of Metro Railway Safety: -

(a) Authorization for Opening of New Railway Lines:

In terms of The Railways Act, 1989/Metro Railways (O&M) Act, 2002 and The Railways (Opening for Public Carriage of Passengers) Rules, 2024/The Opening of Metro Railways for Public Carriage of Passengers Rules, 2013 Indian Railways/Metro Railways approach the respective Commissioner along with their application/ proposal seeking sanction of respective Commissioner for opening of new Railway/Metro line, doubling of existing lines, gauge conversion works etc.

Rules for Opening stipulate that while making a reference to the Commissioner for inspection, the concerned Railway/Metro shall furnish all the relevant documents to the Commissioner one month before the date on which a Railway/Metro line or a section of a Railway/Metro line is proposed for opening by the Railway/Metro.

On receipt of the application, the Commissioner scrutinizes the application and if everything is in order then a date of inspection is fixed and intimated to the Railway/Metro. On the schedule date the Commissioner conducts the inspection with his/her team of officers accompanied by Zonal Railway Headquarter and Divisional officers/Metro Railway officials.

After inspection, if Commissioner is satisfied with its fitness with respect to safety of the passengers; he/she issues authorization /sanction for opening of the subject work with certain stipulations and also forwards the inspection report of the same to the Central Government and CCRS Office.

If Commissioner is not satisfied with its fitness with respect to safety of the passengers; he/she issues the inspection report of the same to the Railway/Metro indicating the various deficiencies in the work to be attended to ensure safety of the passengers. It is the discretion of Commissioner to re-inspect the section after attending all the deficiencies by the Railway/Metro before opening the same for public carriage of passengers or else authorize the Central Government to open the subject section after attending the deficiencies.

(b) Sanctions for Execution of Minor Works:

Structural works affecting the safety of trains on running lines, such as provision of additional bridges, rebuilding or re-girdering of existing bridges, re-modeling of station yards, modification to signaling etc. are carried out by the Railways/Metro only after obtaining the sanction of the Commissioner.

However, as per **Gazette Notification No. S. O.2368(E)** dated 24.05.2022, the following works have been dispensed from CRS Sanction:

- Construction, rebuilding, modification and strengthening of Foot-Over-Bridges and Road-Over-Bridges;
- Construction, rebuilding, re-girdering and strengthening of minor bridges
- Re-girdering and strengthening of all existing bridges, other than minor bridges
- Elimination of manned level crossing
- Upgradation of level crossing, including interlocking outside station limits
- For introduction of electric traction.

As per **Gazette Notification No. S. O.2184(E)** dated 16.05.2023, the following works have been dispensed from CRS Sanction:

- Introduction of Double Distant Signaling along with corresponding changes at adjacent stations without yard remodeling.
- Introduction of new Intermediate Block Signaling except in section with Slip siding and Catch siding, along with corresponding changes at adjacent stations without yard remodeling.
- Introduction of new Automatic Block Signaling except in section with Slip siding and Catch siding, along with corresponding changes at adjacent stations without yard remodeling.

In terms of above provisions, Zonal Railways submit the applications of different works along with all enclosures like **Joint Safety Certificate, Track Certificate, Bridge Certificate, OHE Certificate, RDSO Speed Certificate, Railway Board's previous sanction, Condonation of Railway Board for infringement to the Schedule of Dimensions etc.** After receipt of such applications, CRS examines them as per the provision of various manuals and if found in order, gives the sanction for the same.

(c) Introduction of new Rolling Stock and increase in the speed of existing Rolling Stock:

Prior to 1st October 2018, as per the extant rule, the CRS after examining the proposal used to send the report with his recommendations to the CCRS. CCRS after examining the proposal, if found in order, would forward the same with or without stipulations to the Ministry of Railways for sanction of running of new Rolling Stock or increasing the speed of existing Rolling Stock. Now, Ministry of Railways, vide **Gazette Notification no. 698 dated 01 October 2018**, has amended the Railways Opening for Public Carriage of Passenger Rules, 2000 and revised this procedure. As per present procedure, (Rule 28) RDSO applies to CCRS for:

1. Sanctioning speed of new designs of Rolling Stock
2. Increasing the speed of existing Rolling Stock.

CCRS after examining the proposal, if found in order, recommend the same, with or without stipulations to the Ministry of Railways for sanction of running of new Rolling Stock or increasing the speed of existing Rolling Stock.

Vide **Gazette Notification No 259 dt. 27.04.2023** Railway (Opening for Public Carriage of Passengers) Rules, 2000 have been further amended and as per Rule 28(6A), sanction for introduction of any locomotive or Rolling Stock which is not considered new and termed as “Derived” shall be accorded by DG/RDSO.

- (d) Railway Board has issued the Schedule of Dimensions (revised 2022), Maximum and Minimum & Recommended Dimensions to be observed on all 1676 mm Gauge on IR. These dimensions given in Schedule-1 of Indian Railway Schedule of Dimensions (IRSOD) (revised 2022) have been classified into two heads; for existing works and for new works.** These Dimensions are to be observed on all 1676mm Gauge on Indian Railway unless prior sanction has been obtained from the Railway Board through CRS/CCRS to execute the new work which would infringe the IRSOD.
- (e) Any consignment which does not adhere to IRSOD, 2022 is treated as an Over Dimensional Consignment (ODC).** For movement of ODC on Indian Railway, separate sanction of the competent authority is required. Railway submits the application for movement of ODC to the concerned CRS, if it requires CRS sanction. The same is examined in the office of the CRS and when found in order, sanction is granted by the CRS for movement of ODC in the concerned Zonal Railway.

- (f) Periodical Inspection of running lines and other assets to keep themselves familiar with Railway working.
- (g) Investigation into Serious Railway Accidents and review of reports of other train accidents, inquired by Railways.

1.6.3 Functions of the Chief Commissioner of Railway Safety:

- (a) CCRS advises Central Government in all matters relating to Railway Safety, recruitment of officers/staff, postings and promotions, budget and expenditure etc.
- (b) The first three reports of Statutory inquiries (both preliminary and final) into accidents, conducted by newly appointed Commissioners are to be sent to CCRS for scrutiny before forwarding it to Railway Board.
- (c) Scrutiny of Railway's proposals, if any, regarding condonation of infringements to IRSOD received from CRS office and if found in order, then the same is forwarded to Railway Board with suitable stipulations.
- (d) Scrutiny of Railway's proposals regarding introduction of new Rolling Stock or increase in the speed of existing Rolling Stock received from RDSO and if found in order then the same is forwarded to Railway Board with/without suitable stipulations.
- (e) Similarly, any condonation of infringement to IRSOD in case of Rolling Stock is also sanctioned by Railway Board on recommendation of CCRS.
- (f) Examination of Railway Board's proposals for amendments to General Rules, Railway Rules for Opening, Schedule of Dimensions etc. in consultation with the Commissioners and convey the views of the Commission to Railway Board, whenever so referred; and
- (g) Preparation of the Annual Report on the activities of Commission of Railway Safety.
- (h) Any other work/duty assigned by Central Government with respect to Railway safety.

CHAPTER-II

ACTIVITIES OF COMMISSIONERS OF RAILWAY SAFETY

- 2.1** Section 22 of The Railways Act, 1989, prescribes that Central Government shall, before giving its sanction to opening of a Railway, obtain a report from the Commissioner about fitness of the line for public carriage of passengers.

Section 14 & 15 of Metro Railways (O&M) Act, 2002 prescribes that the Metro Railway in the National Capital Region, Metropolitan city and Metropolitan area shall not be opened for the public carriage of passengers except with the previous sanction of the Central Government.

Under Section 28 of The Railways Act 1989, Rule 22 of The Railways (Opening for Public Carriage of Passenger) Rules, 2024 and Rule 22 (1) of Opening of Metro Railways for Public Carriage of Passengers Rules, 2013, power for authorizing the Opening of new lines has been delegated to CRS/CMRS.

- 2.2** During the FY 2024-25 authorizations for the opening of 577.30 Km of New lines, 1553.75 Km of Additional/Double lines and Gauge Conversions of 131.88 Km were given. Details of the lines on which Commissioners under powers delegated to them by Central Government authorized public carriage of passengers are given in Appendix-II.

- 2.3 ACHEIVEMENTS OF THE COMMISSIONERS OF RAILWAY SAFETY**
In 2024-2025, authorizations for opening of lines for public carriage of passenger traffic accorded by Commissioners of Railway Safety are summarized below:

Circle	New Lines (Kms)	Doubling/Addl. Lines (Kms)	Gauge conversion (Kms)
CC	141.85	279.171	0
EC	80.333	133.842	0
NC	104.26	103.075	0
NEC	40.50	231.288	0
NFC	70.416	75.028	0
SC	30.274	27.108	0
SCC	37.76	114.572	0
SEC	71.918	381.512	16.671
WC	0	208.154	115.213
Total	577.30	1553.75	131.88

2.4 ACHEIVEMENTS OF THE COMMISSIONERS OF METRO RAILWAY SAFETY

In 2024-2025, Metro Railway inspections carried out by Commissioner of Metro Railway Safety are summarized below: -

Circle	Metro Railways	(In Kilometers)
CMRS Delhi	DMRC	1.82
	Maha- Metro	3.42
	MMRC	12.695
	GMRC	1.449
	NCRTC	13.016
	UPMRC	6.35
	MPMRC	5.26
CRS-WC/CMRS	GMRC	34.62
CRS-SC/CMRS	BMRC	2.953
CRS -NFC	Metro Railway Kolkata	20.38
	Total	101.97

2.5 NEW MINOR WORKS:

During year 2024-25 the CRS/CMRS have given sanctions for execution of **1039** minor works by Railway Administration.

Circle	Minor Works
Central Circle	176
Eastern Circle	96
Northern Circle	122
North Eastern Circle	81
North Frontier Circle	33
Southern Circle	87
South Central Circle	57
South Eastern Circle	102
Western Circle	250
CMRS, New Delhi	35
Total	1039

2.6 WORKS INVOLVING INFRINGEMENTS OF SCHEDULE OF DIMENSIONS:

2.6.1 In 2024-25, a total of 60 proposals/applications for Condonation of Infringements to IRSOD were sanctioned by the Commissioners of Railway Safety.

2.7 MOVEMENT OF OVER-DIMENSIONAL CONSIGNMENTS:

2.7.1 In 2024-25, no proposal/application for movement of Over-Dimensional Consignments was received by the Commissioners of Railway Safety from Railways.

2.8 NEW TYPES OF LOCOMOTIVES AND ROLLING STOCK:

2.8.1 Section 27 of Railways Act, 1989 prescribes that new Rolling Stock can be introduced only after prior sanction by the Central Government and before sanctioning, Central Government shall obtain a report from the Commission of Railway Safety.

In the year 2024-25, a total of 33 cases of introduction of Rolling Stock have been examined and recommended for sanction to Railway Board. In addition, 05 cases of condonation of 'Infringement to Schedule of Dimensions' by Rolling Stock were recommended for sanction to Railway Board.

During the year 2024-25, statutory inspections of 11 Rolling Stock/Track Machine were conducted by CCRS/CRS.

2.9 INSPECTIONS OF RAILWAY LINES:

During 2024-25, Commissioners carried out inspections of 7869.812 Kms of Government Railways either on their own or in the company of General Managers. Significant defects and deficiencies noticed during inspections were discussed with Railway Officers during such inspections and reports were sent to the General Managers for compliance.

2.10 INCREASE OF SECTIONAL SPEED TO 130 KMPH:

During 2024-25, raising of Sectional Speed to 130 kmph has been sanctioned for 370.346 Km on IR. Details are given below:

S.No.	Circle	Section	Total Distance (Kms)
1	CC	Bhusawal-Khandwa	122.80
2	CC	Bhopal-Barkhera	47.35
3	NEC	Gwalior-Banmore	19.011

4		Jhansi-Babina	24.186
5		Banmore-Morena	19.955
6		Mathura-Jhansi	5.805
7		Dabra-Antri	19.896
8		Bijrotha-Jakhaun	45.944
9		Hodal-Kosikalan-Chhata	12.00
10		Chata-Palwal	53.40
		Total	370.347

2.11 Activities of Commissioners in respect of Inquiries into Accidents are given in Chapter-III. In year 2024-25, eight (8) serious accidents on Indian Railways were inquired by Commissioners of Railway Safety.

CHAPTER –III

INVESTIGATION INTO ACCIDENTS

3.1 Commissioners of Railway Safety (CRS) investigate serious Train Accidents. Other train accidents are investigated by the Committee of Railway Officers. Reports of these inquiries are sent by Railways for review by the concerned CRS. However, if the Commissioner desires, he can ask the Zonal Railway to enhance the scale of inquiry and/or send it back to Railways for re-inquiry after review.

3.2 Train Accident is an accident that involves a train.

3.2.1 Indian Railways has classified Accidents under following heads:

- I. Train accidents
- II. Yard accidents
- III. Indicative accidents
- IV. Equipment Failures and
- V. Unusual incidents

3.2.2 Train Accidents are further classified into the following categories as:

A) Consequential Train Accident:

Consequential Train Accidents include train accidents having serious repercussions in terms of loss of human life, human injury and loss to Railway property or interruption to Rail traffic. Train accidents under the following classification will be termed as Consequential Train Accidents:

- I. Collision
- II. Fire
- III. Level crossing
- IV. Derailment
- V. Miscellaneous

B) Other Train Accidents:

All other accidents which are not covered under the definition of the consequential train accidents are to be treated as other train accidents.

3.3 RULES FOR INQUIRIES BY COMMISSIONERS (CRS):

Rules for holding Inquiries into Railway accidents are contained in Statutory Investigation into Railway Accidents Rules -1998 notified by the Ministry of Civil Aviation in the Gazette vide G.S.R. No. 257 dated 26.12.98 and G.S.R. No. 63 dated

06.03.99. Gist of some rules and procedures for statutory investigations by the CRS are given below:

3.3.1 When should a Statutory Inquiry be held?

Inquiry by the CRS is obligatory in every accident to a passenger carrying train, which is attended with loss of human life, or with grievous hurt as defined in the section 45 of Indian Penal Code, 1860, to a passenger or passengers travelling inside the train or with damage to Railway property of a value exceeding Rs. 2 Crore. Workmen's trains or Ballast trains or Accident Relief Trains or Tower Wagon carrying workmen are passenger trains for this purpose and in the event of a workman getting killed or grievously hurt as a result of an accident to such train, inquiry is obligatory.

However, the following type of accidents shall be excluded:

Cases of trespassers run over and injured or killed through their own carelessness or of passengers injured or killed through their own carelessness, and; Cases involving persons being Railway employee or holding valid passes/tickets or otherwise who are killed or grievously injured while traveling outside the Rolling Stock of a passenger train (such as on foot board or roof or buffer but excluding the inside of vestibules between coaches), or run over at a Level Crossing or elsewhere on the Railway track by a train, and Level crossing accident where no passenger or Railway employee is killed or grievously hurt; **unless the Chief Commissioner of Railway Safety or Commissioner of Railway Safety is of the opinion that the accident requires the holding of an inquiry by the Commissioner of Railway Safety.**

As per this Para, any accident which is attended with loss of life is considered to be serious accident. There are provisions in this para which are qualified by certain conditions which may necessitate statutory inquiry by the Commissioner even if a simple reading of it implies otherwise. For example, cases of **trespassers run over and injured or killed through their own carelessness** are not covered under the definition of Serious Accidents where statutory inquiry is obligatory. However, a simple interpretation of this Para is that not all cases of trespassers are exempted from being considered as serious accidents because if it is so, simply "**trespassers run over and injured or killed**" would have been written without qualifying "**through their own carelessness**".

A logical corollary to this interpretation would be that cases of trespassers run over, or injured, or killed because of carelessness of Railway employees are **not exempted** and very much covered within the classification of "serious accidents". However, this can only be ascertained after an inquiry whether people got killed or

injured because of carelessness of Railway employees or not. Under this provision, even accidents involving death which prima facie appear to be excluded from the purview of CRS inquiry may qualify as one and therefore, many such accidents are inquired into by the Commissioners from time to time.

3.3.2 When shall the Commissioner stop or discontinue his inquiry?

Whenever the Central Government appoints a **Commission of Inquiry** under the Commission of Inquiries Act, the CRS shall discontinue his inquiry.

3.3.3 Procedure when Commissioner is unable to hold an inquiry:

When a CRS is unable to take up an inquiry, he/she is required to inform CCRS of the reasons as to why the inquiry cannot be done by him/her. In such a case, CCRS can himself/herself conduct the inquiry or direct another CRS to inquire into the accident or the inquiry can be entrusted to the Railway itself, which will then appoint a Committee of Railway Officers to inquire into the accident. The Committee's inquiry report is submitted to the CRS, who scrutinizes it and in case he/she agrees with findings, forwards it to the CCRS. In case CRS disagrees with the findings, he/she returns the inquiry report with his/her observations to Railways for review.

3.3.4 Procedure for conducting a Statutory Inquiry:

On receipt of the intimation of occurrence of a serious accident from the concerned Railway, CRS notifies his intention to hold an inquiry and at the same time, fixes and communicates the schedule date, time and place of inquiry. A formal notice of inquiry is sent to the concerned Railway with copy to the CCRS, Railway Board and the Secretary, Civil Aviation. He/she also asks the concerned Railway to make arrangement for his visit to the accident site at the earliest possible time. Notice of inquiry is also published in Newspapers to invite public to give evidence in the inquiry in person or through written communication to the CRS. Officers of the local Magistracy and police are also notified of the date, time and place of the inquiry. Accordingly, the CRS inspects the accident site along with the Railway Officers and thereafter conducts the statutory inquiry.

3.3.5 Scope:

CRS holds inquiry into serious Railway accidents with a view to ascertain the causes of the accident. Investigations are also carried out into the question, whether prompt and adequate steps were taken by the Railway administration for relief measures such as provision of first aid, medical treatment and refreshments to passengers, evacuation of injured passengers and other facilities like arrangements for trans-

shipment of passengers for completion of their journey to destination by running of duplicate trains etc. Based on his inquiry, the CRS makes recommendations:

- To prevent the recurrence of such accidents,
- To lay down new rules or to modify existing rules for safe working,
- To improve standards of signaling for safe train operation,
- To improve standards of maintenance of signaling, track, bridges, Rolling Stock etc,
- For speedy restoration of traffic,
- For prompt relief measures and other passenger amenities etc.

He/She also comments on matters, observed by him/her during the course of his/her inquiry, which may not have any direct bearing on the cause of the accident under investigation, but which may, in some cases, affect the safe working of the Railway and lead to accidents.

3.4 INQUIRIES OF SERIOUS TRAIN ACCIDENTS IN 2024-25:

During the year 2024-25, 08 serious accidents (on Indian Railways) were inquired by the Commissioners. Brief details of these accident inquiries are given in Appendix I. Total 65 recommendations were made in these Inquiries Reports.

CHAPTER-IV

ANALYSIS OF TRENDS OF ACCIDENTS

4.1 Under section 113 of The Railways Act, 1989 a Notice of Accident is required to be issued by Railway administration to the concerned authorities. Relevant part of section 113 is reproduced below: -

1. Where, in the course of working a Railway:
 - (a) any accident attended with loss of human life, or with grievous hurt, as defined in the Indian Penal Code (45 of 1860), or with such serious injury to property as may be prescribed; or
 - (b) any collision between trains of which one is a train carrying passengers; or
 - (c) the derailment of any train carrying passengers, or any part of such train; or
 - (d) any accident of a description usually attended with loss of human life or with such grievous hurt as aforesaid or with serious injury to property; or
 - (e) any accident of any other description which the Central Government may notify in this behalf in the Official Gazette.

occurs, the station master of the station nearest to the place at which the accident occurs or where there is no station master, the Railway servant in charge of the section of the Railway on which the accident occurs, shall, without delay, give notice of the accident to the District Magistrate and Superintendent of Police, within whose jurisdiction the accident occurs, the officer in charge of the police station within the local limits of which the accident occurs and to such other Magistrate or police officer as may be appointed in this behalf by the Central Government.

2. The Railway administration within whose jurisdiction the accident occurs, as also the Railway administration to whom the train involved in the accident belongs, shall without delay, give **Notice of the Accident to the State Government and the Commissioner** having jurisdiction over the place of the accident.

Train Accidents, under section 113 of the Act, and as per explanation in Rule of Railway (Notices of and Inquiries into Accidents) Rules, 1998 issued by Ministry of Railway, include those Railway accidents, which occur in the course of working of a Railway and usually attended with loss of human life (such as accidents to passenger trains involving collisions, derailments, train wrecking, or attempted train wrecking, cases of running over obstructions placed on line, of passengers falling out of trains or of fire in trains), or grievous hurt as defined in the Indian Penal Code or serious injury to Railway property of the value exceeding two crores rupees which have not actually occurred but which by the nature of the accident might reasonably have been expected to occur; and also cases of landslides or of breach by rain or flood which cause the interruption of any important through line of communication for at least 24 hours.

4.2 SERIOUS TRAIN ACCIDENTS:

Accidents, referred to in Section 114 of the Railways Act 1989, are investigated by Commissioner of Railway Safety. This section is reproduced below:

1. On the receipt of a notice under Section 113 of the occurrence of an accident to a train carrying passengers resulting in loss of human life or grievous hurt causing total or partial disablement of permanent nature to a passenger or serious damage to Railway property, the Commissioner shall, as soon as may be, notify the Railway administration in whose jurisdiction the accident occurred of his intention to hold an inquiry into the causes that led to the accident and shall at the same time fix and communicate the date, time and place of inquiry :

Provided that it shall be open to the Commissioner to hold an inquiry into any other accident which, in his opinion, requires the holding of such an inquiry.

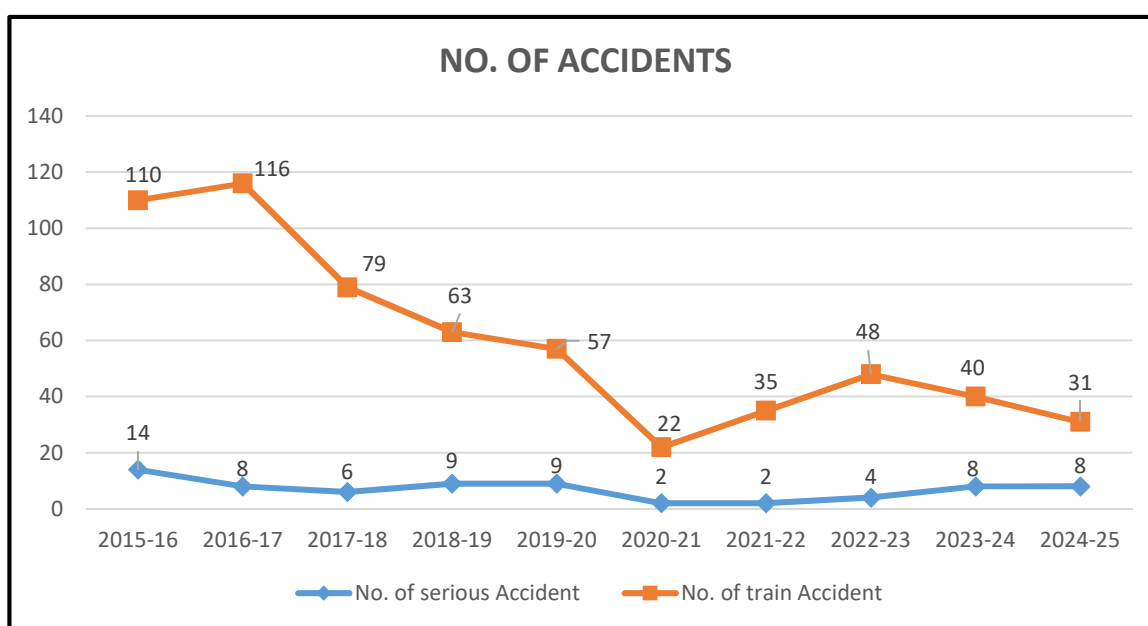
2. If for any reason, the Commissioner is not able to hold any inquiry as soon as may be after the occurrence of the accident, he shall notify the Railway administration accordingly.

In such a situation the inquiry shall be conducted as per the provision laid down under Section 115 of the Railway Act.

4.3 TREND OF TRAIN ACCIDENTS:

4.3.1 Total Numbers of train accidents and serious accidents investigated by CRS on Indian Railways in last ten (10) years is shown in Figure-1.

Figure-1



Appreciation of the above graph (Figure 1) indicates that: -

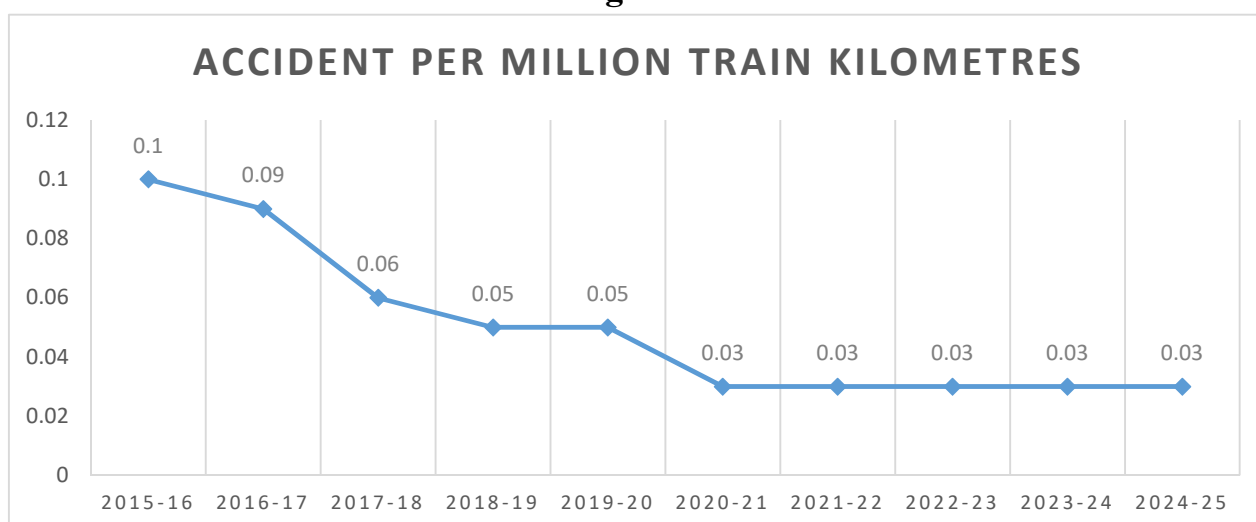
- ❖ **Total number of train accidents had decreased to 31 in the year 2024-25 as against 40 during the year 2023-24.**
- ❖ **However, number of serious train accidents remains similar to last year i.e. 08 accidents.**

4.3.2 Breakup of Passenger and Goods Train Accidents (Consequential Train Accidents) in 2023-24 and 2024-25 is shown in the table below.

TABLE – 1

SN	Description	2023-24	2024-25
1	Number of Train Accidents	40	31
2	Number of Passenger Train Accidents	32	22
3	No. of Goods Train Accidents	8	9
4	Accidents Per million train-Kilometers as per Ministry of Railways data	0.03	0.03

Figure-2



4.4 RAILWAY-WISE TREND OF ACCIDENTS:

- (a) Number of accidents, which occurred in each Zonal Railway in the years 2023-24 and 2024-25, are shown in the table below:

TABLE 2

S.No.	Railway	Total number of Train Accidents					
		2023-24			2024-25		
		Pass.	Goods	Total	Pass.	Goods	Total
1	Central	0	0	0	1	1	2
2	Eastern	4	0	4	0	0	0
3	East Central	3	1	4	2	0	2
4	East Coast	3	0	3	1	0	1
5	Northern	2	0	2	5	1	6
6	North Central	5	0	5	1	1	2
7	North Eastern	0	0	0	1	0	1
8	Northeast Frontier	1	1	2	2	1	3
9	North Western	2	0	2	1	0	1
10	Southern	2	0	2	1	0	1
11	South Central	2	0	2	1	1	2
12	South East Central	0	2	2	2	1	3
13	South Eastern	2	1	3	2	0	2
14	South Western	1	2	3	0	1	1
15	Western	3	0	3	0	1	1
16	West Central	2	1	3	2	1	3
17	Konkan Railway	0	0	0	0	0	0
TOTAL		32	8	40	22	9	31

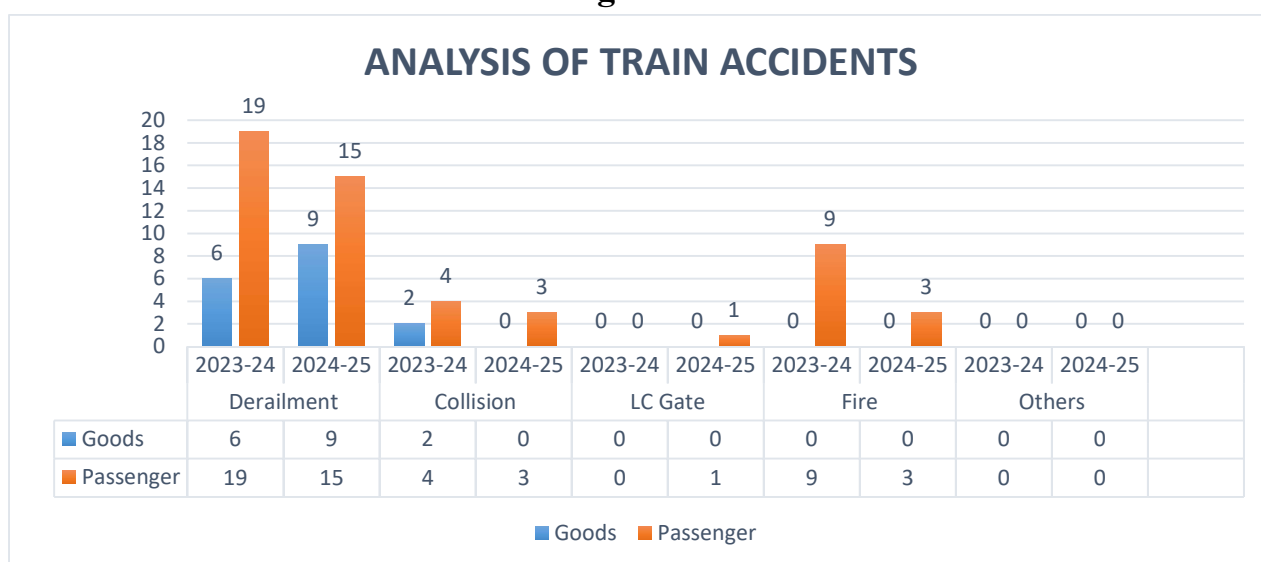
Appreciation of above reveals that: -

- ❖ The **number of Passenger train accidents decreased to 22** in 2024-25 as against 32 in 2023-24.
- ❖ The **number of Goods train accidents increased to 9** in 2024-25 as against 08 in 2023-24.
- ❖ Number of accidents **increased in 5 Zonal Railways** namely Central, Northeast Frontier, South East Central, Northern & North Eastern Railway.
- ❖ Number of accidents in 12 **Zonal Railways** either **reduced or remained same**.
- ❖ **Eastern & Konkan Railways successfully ensured zero accident.**

4.5 ANALYSIS OF TRAIN ACCIDENTS:

Various types of accidents (on account of derailment, collision, fire, level crossings and other causes) for passenger trains and goods trains for the year 2023-24 and 2024-25 is shown as below.

Figure-3



	Derailment		Collision		LC Gate		Fire		Others	
	2023-24	2024-25	2023-24	2024-25	2023-24	2024-25	2023-24	2024-25	2023-24	2024-25
Goods	6	9	2	0	0	0	0	0	0	0
Passenger	19	15	4	3	0	1	9	3	0	0

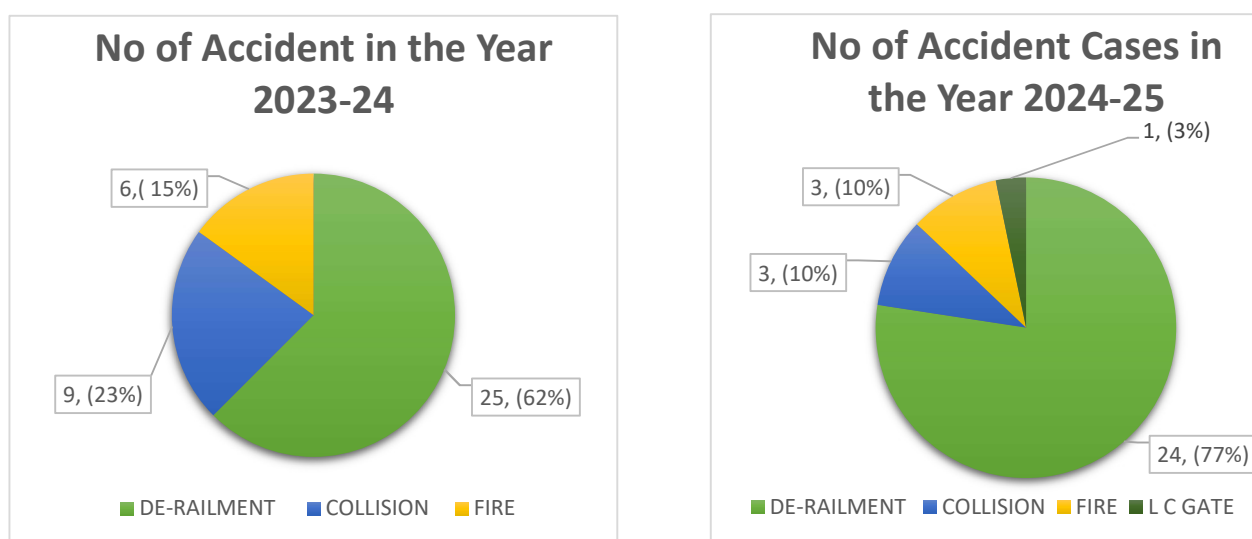
Derailments constitute the biggest chunk of train accidents, accounting for 77.4% (24 accidents) of the total accidents in 2024-25 as against 62.5% in 2023-24.

There were 03 **Fire** accidents (passenger trains) which is 10% of total accidents during the said year as compared to 22.5% in 2023-24.

There were 3 Collision accidents (passenger trains) in 2024-25 which is 10% of total accidents during the said year.

The breakup of various types of **Consequential Train Accidents** is shown in figure below.

Figure 4



4.6 CAUSE-WISE ANALYSIS OF VARIOUS TYPES OF TRAIN ACCIDENTS

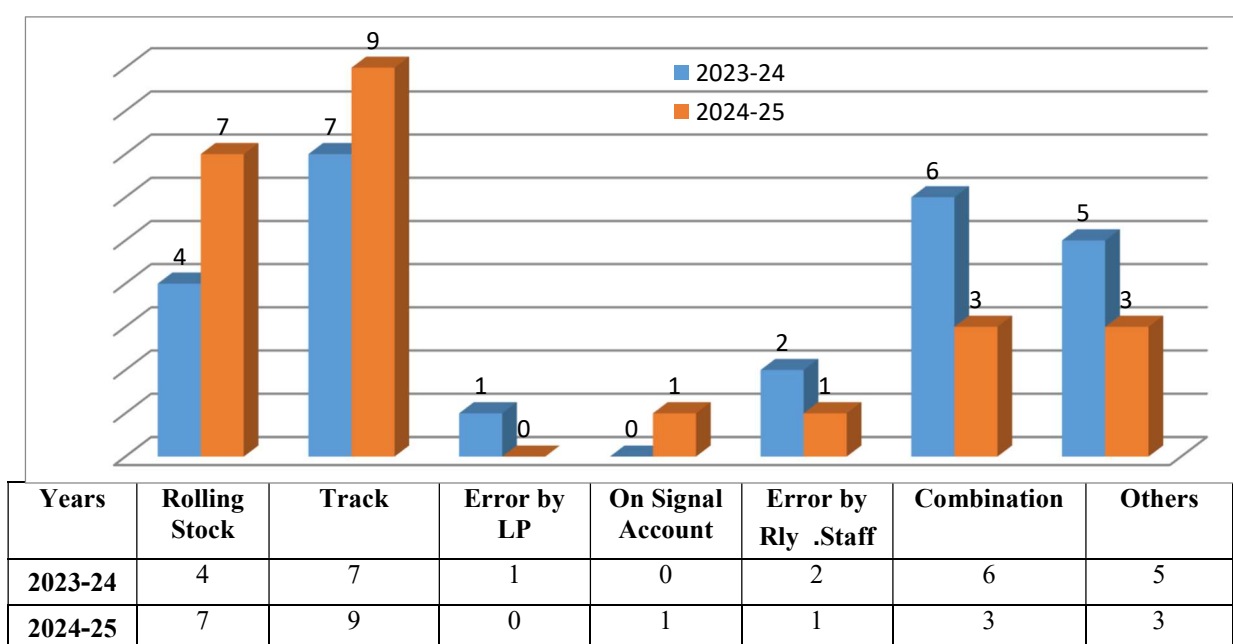
4.6.1 DERAILMENTS:

Numbers of derailments were as follows: -

2023-2024 **25 (Passenger-19, Goods-6)**
2024-2025 **24 (Passenger-15, Goods-9)**

There were total 24 derailments during 2024-25, in Consequential Train Accidents category. **Cause-wise analysis of derailments** in the year 2023-24 and 2024-25 is shown in the figure below.

Figure-5



The cause wise analysis/break up of these derailments is as follows:

- 9 derailments occurred due to Track/P. Way defects.
- 7 derailments occurred due to Rolling Stock defects and Staff negligence.
- 1 derailment occurred due to error by Railway Staff.
- 3 derailments occurred due to Combination of errors/factors (Track defects, Rolling Stock defects and staff negligence).
- 1 derailment occurred due to Signal Maintenance staff.
- 3 derailments occurred due to Other causes.

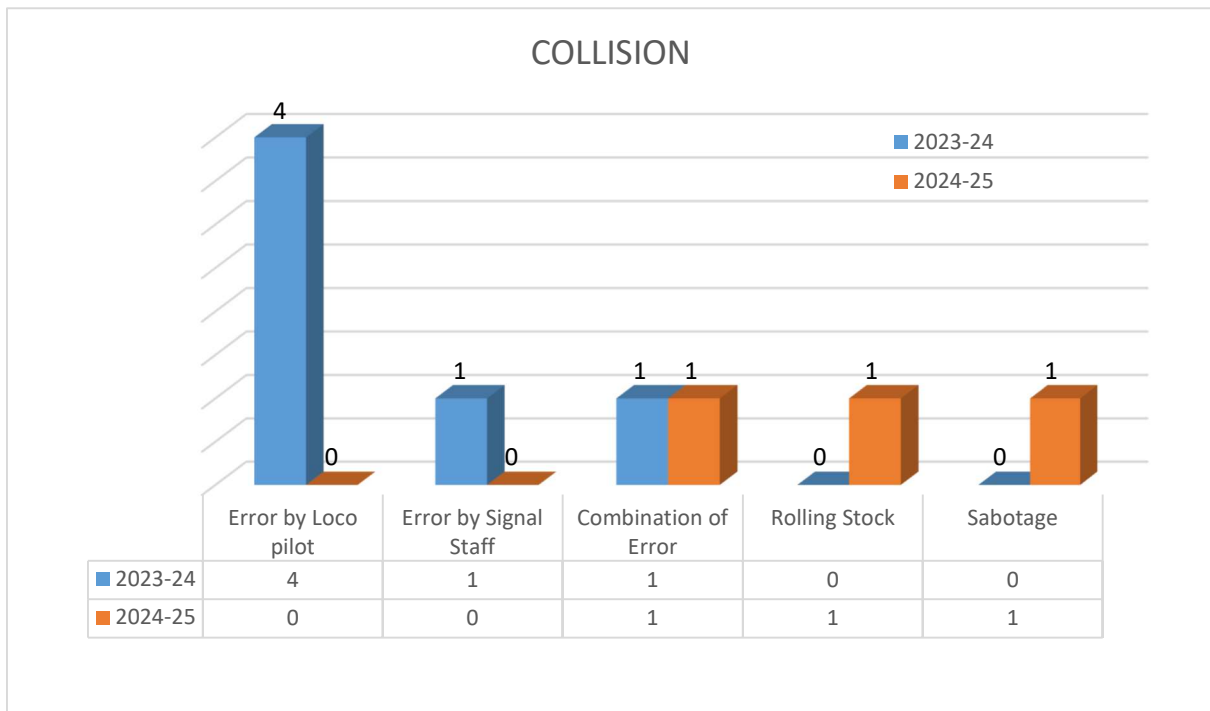
4.6.2 COLLISIONS:

Number of collisions was as follows: -

2023-2024	06 (Passenger-04, Goods-02)
2024-2025	03 (Passenger-03, Goods-0)

Figure below shows **cause-wise analysis of collisions** during 2023-24 and 2024-25.

Figure-6



COLLISION

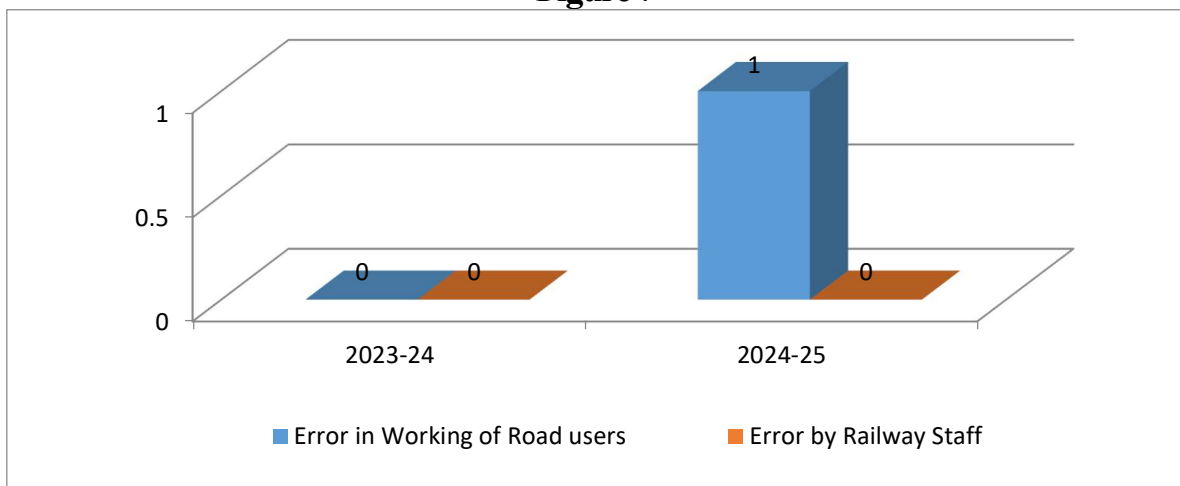
Error by Signaling staff (01), Combination of errors by staff (01) & sabotage (01).

4.6.3 ACCIDENTS AT LEVEL CROSSING GATE:

Numbers of level crossing accidents were as follows: -

2023-2024	00 (Passenger-00, Goods-00)
2024-2025	01 (Passenger-01, Goods-00)

Figure 7



One (01) Level Crossing Gate Accident was reported during the year 2024-25.

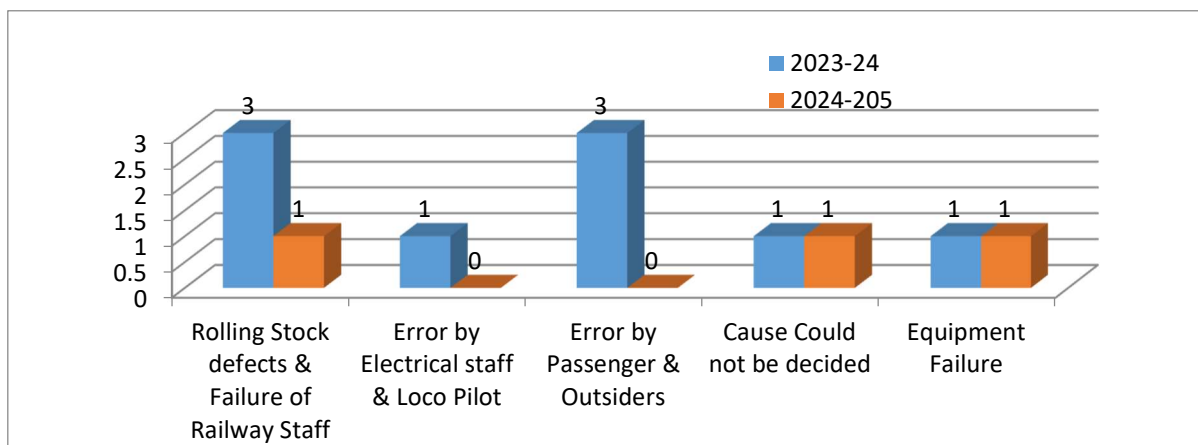
4.6.4 FIRE IN TRAINS:

Numbers of Fire cases are as follows:

2023-2024	09 (Passenger-09, Goods-00)
2024-2025	03 (Passenger-03, Goods-00)

Figure below shows **cause-wise analysis of fire accidents** in trains during 2023-24 and 2024-25.

Figure-8



Out of 03 fire accidents, 01 was caused due to error by Railway Staff, 01 was caused due to equipment failure and in 01 case responsibility could not be decided.

4.7 TRAIN ACCIDENTS DUE TO HUMAN ERROR:

No. of train accidents and contribution of human error (by Railway staff as well as other than Railway Staff) during the year 2024-25 and 2023-24 is shown as below:

TABLE- 3

S.no	Item	2023-24	2024-25
1.	No. of train accidents	40	31
2.	No. of train accidents due to error in working of Railway Staff	27	21
3.	No. of train accidents due to error in working by persons other than Railway Staff	3	6
4.	No. of train accidents due to error in working by persons (2+3)	30	27
5.	% of train accidents due to error in working of Railway Staff (2÷1)	67.50%	67.74%
6.	% of train accidents due to human error (Both Railway and other than Railway Staff) (4÷1)	75%	87.09%

Percentage of train accidents, attributable to error in working by Railway Staff is 67.74% in the year 2024-25 against 67.50% in the year 2023-24. The error caused due to human failure, comprising both Railway Staff as well as other than Railway Staff such as road users, passengers, miscreants etc. was responsible for 87.09% of train accidents for the year 2024-25 against 75% of train accidents in the year 2023-24.

4.8 TREND OF SERIOUS TRAIN ACCIDENTS OVER INDIAN RAILWAYS:

- 4.8.1 Total number of train accidents, serious train accidents including those resulting in fatalities of passengers (including Railway Staff) travelling in trains (as distinct from other fatalities, such as, those occurring among trespassers, Level Crossing Road users etc.) for last 05 years are compared in Table 4.

TABLE 4

SN	Year	No. of accidents	No. of Serious accidents	No. of Serious accidents resulting in passenger fatalities	No. of fatalities including Passengers, Railway staff & Outsiders
1	2020-21	22	02	00	04
2	2021-22	35	02	02	17
3	2022-23	48	04	00	08
4	2023-24	40	08	06	331
5	2024-25	31	08	06	18
Average for 5 years		35.20	4.80	2.8	75.6

4.8.2 Total Number of train accidents has decreased to 31 in the year 2024-25 as against 40 during the year 2023-24 (22.5 % decrease).

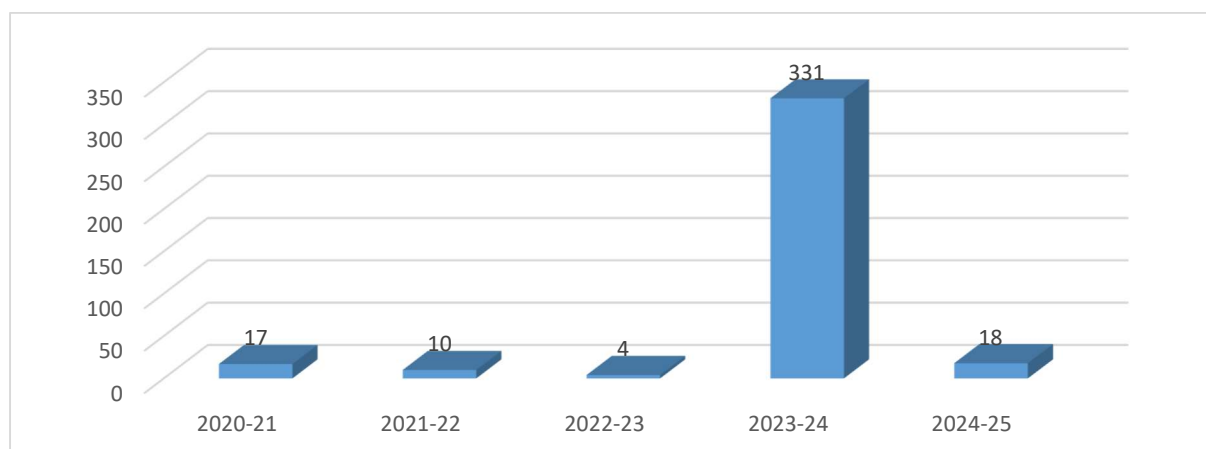
4.8.3 Total number of serious accidents inquired by the Commission for Indian Railways were eight (08) in 2024-25. Last year also Commission inquired into eight (08) serious accidents.

4.9 FATALITIES IN TRAIN ACCIDENTS:

Numbers of fatalities in train accidents in last five (05) years are shown in the figure below.

Figure-9

Fatalities (incl. Passengers, Railway Staff & others) in Train Accidents

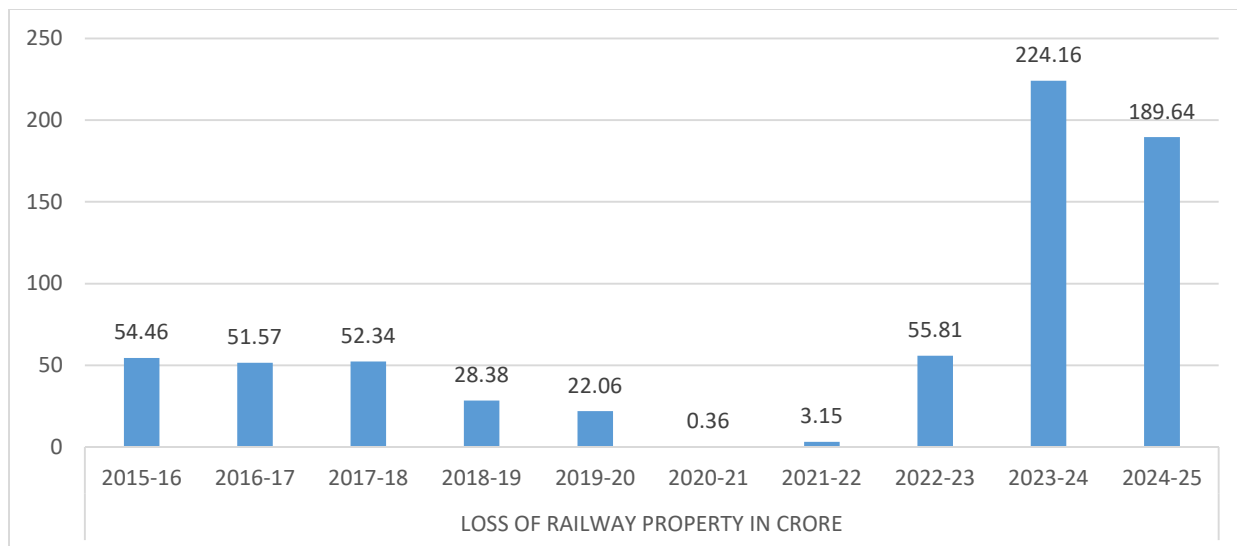


4.10 **LOSS OF RAILWAY PROPERTY IN ACCIDENTS:**

Estimated cost of damages to Railway property resulting from train accidents during last ten (10) years are given in the figure below.

Loss of Railway Property (in crore) in Train Accidents

Figure-10



CHAPTER – V

RAILWAYS RESPONSE TO ACCIDENT INQUIRY REPORTS

5.1 In 2024-25, two (02) Action Taken Reports (ATRs) were received from the Railway Board. Of these, one ATR pertains to the year 2022-23 and the other one to the year 2023-24.

In 2023-24, eight (08) serious accidents occurred. Out of these, final statutory reports for five (05) accidents were finalized in the year 2023-24, while the remaining three (03) were finalized in the year 2024-25.

5.2 During the year 2024-25, eight (08) serious accidents occurred. out of these statutory reports for six (06) accidents were finalized during the same year. Reports for the remaining two (02) were still under preparation as on 31.03.2025. All the final statutory reports have been sent to the Railway Board for Action Taken Reports. Only two (02) Action Taken Reports (ATRs) were received in 2024-25. Railway Board has accepted 13 out of 15 recommendations in these ATRs.

Table 5

Accident occurring in the Year	Number of ATRs received from Railway Board in 2024-25		No of Pending ATRs
	Received	No. of Recommendations	
2022-23	1	9	0
2023-24	1	6	6
2024-25	0	0	6
Total	2	15	12

It is observed that sometimes there is a delay in receipt of 'Action Taken Report' from the Ministry of Railways. The issue of non-reporting of ATR/status of the recommendations to the commission is being raised regularly during the coordination meetings. Ministry of Railways has mentioned that administration/implementation of the provisions connected with the safe train operation requires deliberation at various levels, hence the delay.

As on 31.03.2025, **119 recommendations** mentioned in 12 final Accident Inquiry Reports are pending with the Ministry of Railways.

5.3 Some of the Major Recommendations made by Commission in 08 final Accident Inquiry Reports forwarded to Ministry of Railways during the year are given below:

- Automatic Dropping Device (ADD) should be provided in pantographs to detect damage to metallic carbon strips.
- Vacancies in the cadre of supervisors should be filled up so that trip inspection of Locomotives is carried out at the prescribed level of officials.
- Railway should reinvent the VCD so that it can detect the drowsiness of the loco pilot by taking additional inputs of behavioral parameters of the Loco Pilot which will give some indication of fatigue, micro - sleep, and drowsiness.
- The signal interlocking at NSIR station of DFC network permits signalled movement on the blocked line without any isolation in contrary to the provisions of DFC General Rule paragraph 68:
 - (i) Signal Interlocking of NSIR and all other stations of the DFC network having longer loop be modified such that signal should only be cleared if that loop line, where the train is to be received, is isolated from the occupied longer loop line and same should be clearly stipulated in the SWR.
 - (ii) DFC station yards with longer loop shall be modified with provision of physical isolation as per standard layouts for the longer loops as per Railway Board letter number 2012/PL/9/2 dt. 20.12.2016.
- Monitoring of the Loco pilots by the Supervisory officials needs to be more intensive and effective. Assessment of the behavior of the LPGs, their counselling and measures to ensure their alertness should be taken immediately. It should be ensured that one of the Loco pilots is not on continuous night duty.
- The competency of the Station Master and Section Controller posted on the Dedicated Freight Corridor should be reviewed in line with extent provisions/practices followed in Indian Railways and accordingly appropriate training be imparted to the staff.
- Comprehensive instructions on disaster management may be issued by DFCCIL, in consultation with Zonal Railways, clearly specifying the actions to be taken by the Station Masters, Controllers, TPC and other Train running staff in the event of Accidents/ emergencies. Also, mock drills should be conducted periodically on the DFC network.
- Appropriate instructions should be issued by the Railway to immediately switch off the OHE of the adjacent lines (IR and DFC wherever applicable) in case of any major accident like collision/ midsection derailment / derailment of run through

trains in the station yards, and fire, etc. occurred on both networks, so that the probable accident due to infringement on adjacent lines may be averted.

- Crash Barrier type hard fencing should be provided between the DFC and IR tracks at such locations where IR running lines are close to the DFC lines and infringing the safety zone of each other.
- Timing of Data logger, station master clock, Section/TPC control, Locomotive event recorder clocks, speedometers in locomotives as well as monitoring device in coaches/locomotives etc. should be synchronized.
- The intensity of the accident occurred on DFC track on 02.06.2024 was so severe that all the tracks of DFC station yard as well as both main lines of the IR network got infringed/ affected. Its repercussions would have been much severe if both up and down passenger trains had not escaped by chance as the DFC's station yards are falling in the IR's mid-section and DFC tracks are running parallel to the IR tracks. Therefore, DFC should not merely be considered as Goods system, its standard of inspection, maintenance and working should be raised at par with the Passenger train working system of IR.
- The large number of signaling failures in automatic signaling territory is a cause of concern and should be taken up with RDSO and OEMs to improve the reliability of the system.
- A Joint Procedural Order for dealing with signaling failure in automatic signaling territory likely to last for some time or cause serious delay as mentioned in GR 9.12, should be issued by PCSTE, PCOM & PCEE of Zonal Railway.
- Introduction of new Auto Signaling sections should consummate with the provision of Automatic Train Protection. Further, the necessity of Auto Signaling in the Non- Suburban section shall be reviewed considering the limited number of train movements in the Non-suburban section.
- The occurrence of large no of Signal Passing at Danger (SPAD) cases highlight the limitations of preventive measures taken by the Zonal Railways (counselling of Loco Pilot/Assistant Loco Pilot, safety drives, etc.) and underscores the need for an Automatic Train-Protection system (KAVACH) on top priority. Use of non-signaling-based systems such as Artificial Intelligence based detection of the RED aspect of the signal and providing an early warning to the Loco Pilot/GPS-based anti-collision systems shall be explored for provision in locomotive cabs across Indian Railways in non-ATP territory.
- Availability of walkie-talkie sets, being the safety critical equipment, to all Loco Pilots & Train Managers of all the trains shall be ensured all the time. For this

purpose, if required, necessary changes in the procurement policy shall be affected. Further, recording of conversations made by the Station Master through Walkie-Talkie shall be ensured by providing VHF receiver cum recorder in Data Logger Room.

- The GR was issued by the Railway Board in the year 1976, since then lot of changes have taken place in the GR. There is a need to revise and re-issue the GR. Further, the corresponding SR is varying across the Zonal Railways. There is a need to bring uniformity in the SR of Zonal Railways by the Railway Board to the maximum extent possible.
- The provisions of Subsidiary Rules related to Automatic Signaling territory shall be reviewed in regard of the applicability of various operating forms (T/A 912, T/B 912, T/C 912, T/D 912).
- Any changes in GR and SR should be vetted by the safety wing of the Railway Board /concerned Zone for the elimination of any ambiguity/clash with other rules.
- Classification of Operating staff into A, B, C, & D category as advised by Railway Board vide Letter No. 2002/Safety-1/18-2 dated 16-02-2012 shall be implemented in true spirit.
- Crash worthiness feature of the passenger coaches shall be reviewed in reference to standard EN-15227. On priority, at least the last two coaches of every passenger carrying train should have crash-worthiness feature as per standard EN-15227.
- Railway should expedite the process of retro-fitment of Crew Voice & Video Recording System (CVVRS) in Locomotives to record the conversation of Loco Pilot with Train Manager, Station Master etc.
- Through Sleeper Renewal (Primary) work with 1660 sleeper density along with Through Fitting Renewal shall be taken up in the MOTG-JLHI section immediately to replace as most existing sleepers were unserviceable as per para 702 (2) of IRPWM. Railway shall identify other sections with similar issues and take corrective actions. IRPWM para 702(2) specifying criteria for renewal of sleepers is ambiguous as "patch" should be clearly defined.
- Proposals for sanction of track renewal works should be initiated well in advance so that all components of track are within the prescribed service life and reliability of assets is not compromised. Further, progress of sanctioned track renewal works should be closely monitored.
- A detailed survey should be carried out by Railway to identify the LWRs where behavior is abnormal and cut rails have been inserted near the SEJs for adjustment

of gaps. Railway should impose suitable speed restrictions on all such LWRs, till the defects are rectified.

- The non-compliance of stipulations in IRPWM for laying the LWR on curve in one of the accident cases calls for a detailed survey. All the LWRs in the Railway should be reviewed and LWRs approved/laid in violation to the provisions in IRPWM should be rectified.
- On 26 locations in LJM division, gangs' beat/jurisdiction ends on Curves, Level crossings or Bridges. This creates shared/divided responsibility. List of such beats should be prepared for all divisions and modified so that these assets are totally under one gang.
- Railway should ensure Railway's TMS data is accurate & updated regularly. The format for recording the observation/measurement of all Rolling Stocks of Accident Investigation/Inquiry Reports issued by Railway Board should be reviewed to remove ambiguities.
- All ARMEs/ARTs should be berthed so that it reaches target block section within five minutes. ART staff should be trained by forensic experts in videography, recording site observations and preservation of clues. Drone cameras should be provided in ARTs for videography of site before restoration work and condition after clearing each Rolling Stock/ major activity.
- In USFD, B-scan should be improved to capture plan view as well. Software of all 7 probe machines should be upgraded to show B-Scan as well. Use of phased Array scans used by NML (National Metallurgical Laboratory), Jamshedpur may be examined.
- The km chainage should be painted on OHE mast as pitch of OHE mast varies from site to site.
- Locos should be fitted with track facing cameras to record OHE, track, and signals.
- Training in all departments should be reviewed to properly identify symptoms of safety related failures and root cause analysis. Loco crew and inspectors should learn to correlate vehicle/loco behavior with track defects. Similarly, gatemen should be trained to identify rolling stock defects. CTIs should create a media library for easy/quick identification of defects in safety related assets.
- CMM module of CRIS should allow feeding of WSP's odometer to update KMs earned by coach and also location of power panel/WSP panel to properly record coach orientation.

- Ensure uniformity of logs across OEM/models of all critical devices like speedometer, WSP etc. with interval between records so that at least 4 samples can be recorded per rotation of smallest wheel in the train at 160 km/h or higher speed.
- Factors causing track buckling under Indian conditions should be studied and specification for a more ductile rail shall be adopted.
- There is a need to study toe-load variation with temperature for all fittings.
- Reuse of fasteners in critical applications including CTRB cap screw shall be avoided.
- Overloading in wagons should be visible in 'Weigh Bill- Receipt' and instructions for movement of such wagons should strictly be followed to avoid overstressing of assets including rails and bridges.
- All infringements to Item-1(i) of Chapter- II, Schedule- I of IRSOD should be identified and suitable speed restrictions should be imposed till rectification.
- Railway should identify the vulnerable areas prone to sabotage and ensure the patrolling based on level of threat.
- Railway should adopt fixing of anti-pilferage measures for the fittings and connections, as done in the rolling stocks or in some other way.
- Action stipulated under GR 3.38(2) shall be followed.
- Blacksmith and other artisan staff must get issued tools for each day's work and again return it back to their store/toolbox. In any case carrying tools to their house must not be allowed.
- The possibility of sabotage from an insider is a grave matter. Intelligence wing from Railway should develop method of gathering inputs on this aspect.
- Anti-sabotage fittings for connecting the turnouts must be developed urgently. The split pin arrangement must not be a sole measure to keep the fittings in place.
- Type, size and shape of the critical safety fittings should be designed Railway Specific so that these fittings couldn't be opened with the tools readily available in market. Railway Specific tools also should be designed for this purpose.
- Mechanical features in the open switch or adjacent stock rail should be developed to ensure the holding of tongue rail in opened position firmly, on similar lines as available for close switch where both stock and tongue rail are held firmly in close position in existing arrangement or otherwise.
- The detection of the position of the open switch is relied merely upon the integrity of the connections - detection slide and detection rod to the switch rail. Alternative options that might detect open switch movement such as the provision of

independent open switch rail detection or positive, simultaneous detection of both switch rails using electro-mechanical arrangements shall be looked into.

- Functional requirement of wide notches in Detection and Lock slides of IRS Point machines shall be reviewed and idle movement shall be restricted to the extent possible so that Detection Rods and Detection Slides in Open position shall be more sensitive to any sort of disturbances their connections.
- The Railways must have a proper risk assessment procedure in place as part of its Safety Management System, to identify and manage appropriately the risks associated with its systems. It must be acknowledged that human behavior plays a central role in the safe and efficient operation of the Railways. Therefore, it is essential that the Railways take a systematic approach to manage human factor within the Safety Management System.
- Engagement and exposure of contractual staff for the maintenance and operation of critical safety features and systems and allowing them to develop skills in these areas must be reviewed as a priority and it must be brought to minimal in short term and nil in long term.
- A technology driven surveillance system with remote monitoring and alarm generation capabilities shall be developed for identified critical assets like yards, important bridges etc.
- BP hose pipe of the banking engine should always be connected with last vehicle of the train.
- In WAG-9 Locomotive, the system of notches for speed control is not available. Hence, it is advised to modify the subsidiary rule 3.84.03-(a) of SECR which reads as under- “On electrified section extra electric engine may be attached to a train either for double heading or for banking. The leading Loco Pilot who is in charge of the train, shall in such cases notch up until the train moves, the rear Loco Pilot assisting as required. As far as possible the leading Loco Pilot should be 4 notches ahead of the second Loco Pilot so as to ensure that field tap notch is not entered simultaneously and thus to reduce surges”.
- The instances of walkie-talkie failure in long-haul train operations, especially in cutting, are not new and have been occurring regularly and it appears that long-haul train operations were being conducted in violation of Para 6.7 of Guidelines issued by Railway Board vide No. 2022/TT-1/27/1 dated 04.08.2023. Operation of long-haul trains in the Railway should be allowed only after the joint certification by concerned PHODs regarding compliance of guidelines issued by Railway Board and with the approval of General Manager.

- Enabling provisions for running of long-haul trains should be incorporated in General Rules and Operating Manual issued by Railway Board, duly considering the result of operational trials conducted by RDSO.
- The proliferation of DPWCS installations and pairings should be expedited for long-haul train operations by Railways.
- Mandatory period (including period in a year and patrolling hours) for hot weather patrolling in various sections should immediately be decided by CTE of the Railway and issued, considering all relevant factors including temperature records for the previous years, condition of track components, ballast deficiency & toe load of ERCs.
- In Annexure- 3/19 of IRPWM, minimum toe load of 600 Kg for ERCs has been stipulated for LWRs on curves sharper than 4 degrees. Minimum allowable toe load for straight as well as curved track should be specified in IRPWM, linking with sectional/missible speeds.
- General Manager should monitor the compliance of stipulations in the sanctions granted by CRS for raising of sectional speeds to 130 KMPH and availability of traffic blocks/speed restrictions of required duration for activities related to track maintenance/renewals.
- Primary maintenance of the rake of train no. 12551SMVB-KYQ express was conducted and its BPC was issued on 26.03.2025 at KYQ/NFR. As parameters of coaches in train found beyond prescribed limits, even for coaches which were unaffected, North East Frontier Railway need to review the system of checking & maintenance of LHB coaches.

CHAPTER VI

MAJOR ISSUES CONCERNING SAFETY ON INDIAN RAILWAYS

Indian Railways has significantly ramped up efforts to enhance its infrastructure, with major strides in track renewal, deployment of modern coaches, mandatory implementation of corridor blocks and advanced signaling systems. These initiatives have collectively led to a marked decline in the number of reported accidents over the years, reflecting a strong commitment to safety and modernization.

Indian Railways places the utmost emphasis on safety, implementing a wide range of ongoing measures to ensure safe train operations. This includes continuous technological advancements aimed at enhancing safety standards. A robust Safety Management System is firmly in place, designed to proactively detect hazards and unsafe practices, enabling timely corrective action well before any potential mishap. Additionally, regular directives are issued to foster a strong safety culture among Railway personnel and to instil safe work practices across all levels of operation.

The trend of accidents over Indian Railways shows a significant improvement but the number of passengers carrying train derailments is still a cause of concern. The Commission of Railway Safety has communicated to the Ministry of Railways, certain focus areas which require urgent attention to improve overall health of Railway Safety. These includes replacement of over-aged assets, elimination of manned level crossings, adoption of suitable technologies for upgradation and maintenance of track, Rolling Stock, Signaling and interlocking systems, safety drives, greater emphasis on training of officials and inspections at regular intervals to monitor and educate staff for observance of safe practices.

These major issues concerning safety were highlighted to the Ministry of Railways through:

- a. Recommendations of the Commission of Railway Safety based on statutory inquiry of serious accidents. Some important recommendations are covered in Chapter-V.
- b. Suggestions given from time to time regarding critical safety issues based on the observations made during various inspections.
- c. Inspection Reports of newly opened Railway Lines and introduction of new Rolling Stock.
- d. Coordination Meetings with Railway Board.

Some of the Safety Issues are discussed in detail in the subsequent paragraphs.

PART - A

SAFETY ISSUES HIGHLIGHTED BY THE COMMISSION DURING VARIOUS INTERACTIONS WITH RAILWAYS:

I. IMPROVEMENT IN MAINTENANCE AND OPERATION

a. Standardization of G&SR (General & Subsidiary Rules)

- i. General Rules are issued by Railway Board while Subsidiary Rules are issued by Zonal Railways. It is observed that General Rules issued by Railway Board does not cover all common aspects which do not vary across all the Zonal Railways. Further, Subsidiary Rules framed by different Zonal Railways for similar situations/conditions are also varying.
- ii. The train crew now a days operate train in more than one Zonal Railway. Different rules for same situations may lead to misinterpretation and misunderstanding. Ministry of Railway should take up standardization of G & SR to the extent feasible. **Ministry of Railway has started the process of GR review.**
- iii. The provisions of Subsidiary Rules related to Automatic Signaling territory was reviewed in regard of the applicability of various operating forms (T/A 912, T/B 912, T/C 912, T/D 912. Ministry of Railway has issued Unified SR on 9.12 of GR related to automatic signaling vide letter no 2024/TT-IV/12/10 dated 16.08.2024.
(Same were further amended by letter no 2024/TT-IV/12/10 dated 08.04.2025)

b. Non-isolated Shunting and simultaneous reception (GR 3.47 & 5.16)

- i. The recent changes in the provisions of GR 5.16, and GR 3.47 allows non-isolated shunting, and non-isolated simultaneous movements ahead of a train being received on a main line.
- ii. Human error particularly the Signal Passing at Danger (SPAD) is also one of the reasons of the train accidents in Railway. Change in provision of GR 5.16 & 3.47 may create unsafe situation of collision/accident in case of SPAD.
- iii. Commission has raised this issue and ED level committee is formed by Railway board to review the same. Ministry of Railway may expedite the review.

c. Important Recommendation Regarding ADD:

A recent accident involving Train No. 12876 was caused by the failure of equipment—specifically, the metallic carbon strips of the working pantograph. Damaged pantographs can significantly affect train operations as it leads to severe damage to the overhead lines over several kilometres. An important recommendation arising from this incident is the provision of an Automatic Drop

Device (ADD) in the pantograph of locomotives. The ADD ensures that pantographs with damaged contact strips or collector heads are fully and automatically lowered, thereby preventing further damage. Additionally, the system performs sequential switching, lowering subsequent pantographs to protect them from damage as well. By implementing ADD, secondary damage to the overhead line is minimised, and overall maintenance costs for both traction units and overhead Railway infrastructure can be significantly reduced.

d. Guidelines for phased commissioning of station in connection with Tripling work:

Where entire yard within station limit (within outermost signals and beyond as required) is ready in all respects (Civil, S&T, TRD etc.), Railway may commission the station in single phase with minor sanction of CRS as per approved final ESP and SIP.

Signal movement for lines which are not functional should be disconnected with all safety precautions in place. It shall be ensured that Signal for such disconnected movements cannot be taken off and all such disconnected movements shall be annexed with safety certificate.

Safety measures to be followed in such cases shall be issued at Zonal level. Further, the procedure for train operations from the time of commissioning of station and till such time when all lines are fully functional shall be clearly legislated in Temporary Working Order which shall be part of submissions to CRS while applying for sanction.

e. Unsafe practice of using free Advance Starter Signal During Non-Interlocked (NI) period:

During the Commission's inspection, it was observed that certain Zonal Railways were permitting the provision of free Advance Starters during Non-Interlocked (NI) periods. This practice was found to be unsafe under Non-Interlocked working conditions, and the issue was subsequently raised with the Ministry of Railways.

The issue was reviewed by the Ministry of Railways, and instructions were issued to all Zonal Railways that no free Advance Starter (i.e. an Advance Starter not interlocked with the Block instrument) should be provided during Non-Interlocked (NI) period.

f. B-Scan USFD Machine:

Indian Railways is still using A-type (non-recording) USFD machines for testing of Rails and welds. While testing schedules exist, actual test data cannot be recorded or reviewed, leading to reliance on subordinate staff only. Therefore, B-Scan (recording type) machines should be deployed throughout Indian Railways for testing and subsequent improvement in maintenance practices of rails and welds.

g. ERC Tightening:

Generally, it has been observed that ERCs are under driven/over driven. This is a result of using manual methods e.g. hammering etc. Instead, mechanised tools, such as pan pullers, ERC extractors, should be used to ensure precise tightening of ERCs.

h. Elimination of Non-Standard/ forced Layouts of turnouts:

Non-standard and forced layout is one of the probable reasons for the derailment at the turnouts. Further such type of turnouts requires frequent maintenance due to disturbance of track parameters. Railway should eliminate such turnouts on priority in a time bound manner and layouts of such non-standard turnout should be discouraged.

i. Frequency of Track Parameter recording through TRC:

The frequency of Track parameter recording through TRC for speeds from 110 Kmph to 130 Kmph has been reduced from once in 3 months to once in 4 months whereas frequency of Track parameter recording through TRC up to 110 Kmph has been reduced from once in 4 months to once in 6 months. Issue was taken up with Railway Board vide L. No. K-11010/01/2025 Dated 14.02.2025 to review the reduction in TRC frequency. Railway Board (vide L. No. 2023/Track-III/TK/7 dated 26.03.2025) replied that Reduction in TRC frequency is not needed due to optimum utilization of track recording and the practice are being followed by many World Railways. However, Railway Board vide letter no. 2024/CE-II/CS/IRPWM 2024 dated 11.06.2025 has changed the frequency of OMS recording to once a month instead of two months.

j. Replacement of Non-Standard Fittings in track structure:

Non-standard track fittings such as non-standard bolts in SEJs & turnouts are being provided probably due to lack of knowledge/training as well as shortage of standard material. Adequate availability of material of proper specification and trained man power should be ensured.

k. Provision of Isolation during simultaneous reception:

- i. Derail switch shall not be used in the mainline while they may be used in the other lines for provision of isolation in case of non-feasibility of sand hump and dead-end /overrun line of adequate distance.
- ii. Amendments made in GR Rule 5.16 and Rule 3.47 are permitting simultaneous reception of trains over non-isolated lines. Under this condition, any case of Signal Passing at Danger (SPAD) can result in a serious train accident.

l. Deployment of Drones for monitoring of Bridges and Tunnels:

Drones reduce the need for manual inspections in hazardous areas and thereby minimizing the risk of accidents. They can easily access high, narrow, or confined spaces and cover large areas quickly and speed up inspections. Drones capture high-resolution images or video of potential issues like cracks, rust, or structural damages

in bridges, and can identify leaks, water seepage, or structural weaknesses in tunnels.

m. Non-Compliance of Comprehensive instructions for provision of Passenger Amenities and User Facilities at Stations/ Halts:

During the various statutory inspections and other periodical inspections, various deficiencies particularly non-provision of FOBs have been noticed which are clearly in violation of Railway Board instructions of L. No. 2018/LM (PA)/03/06 Dated 09.04.2018. Same issue addressed to Railway Board vide L. No. S-19010/01/2025 Dated 19.02.2025.

n. Transition System on Bridge Approach’:

A provisional design has been developed for new bridge approach transition system vide RDSO L. No GE/Genl/112-Transition Dated 06.08.2024.

o. Improving the planning and construction of Major / Important bridges and opening thereof:

To improve planning & construction of major & important bridges, formation of Technical Advisor Group (TAG) and getting the approval of DBR should be followed. Commissioner of Railway Safety (CRS) should be kept apprised about the special feature/innovative aspects of the Design Basis Report and the decision taken by TAG thereon. Necessary applications for minor sanction shall be submitted before start of construction vide RB’s Letter No. 2025/W-I/Genl./Bridges (E-File No. 3489910) Dated 10.01.2025.

II. PROVISION OF GANTRY SIGNAL:

In areas where visibility of signal is restricted due to any reason like multiple lines, or less center track distance etc., Gantry type signaling as per GR Para 3.04, 3.20 and 3.21 must be designed and provided as a greater number of 3rd and 4th lines are being commissioned by Railways. The Commission has recommended for provision of Gantry Signals in three accident inquiry reports -

- a. The incident of falling of passengers in Chennai division of southern Railway on 23.02.2017.
- b. Incident of falling of passengers in Chennai division of southern Railway on 24.07.2018.
- c. Collision of EMU Train with Tower Car in Howrah division/ER on 06.04.2019. Commission has again raised the issue on 23/11/2023. Based on these recommendations, IR has issued policy and drawing for provision of signals on gantries vide Railway Board’s Letter No. 2023/Safety (Inq.)/16/2 dated 12-12-2023. As the progress was not satisfactory, Commission raised this issue again on 12.08.2024 to expedite the progress.

III. MEASURES TO IMPROVE SAFETY & RELIABILITY OF ROLLING STOCK OVER INDIAN RAILWAYS:

a. Coaches, Trainsets & EMU/MEMU:

- i. Based on Commission's stipulations, legislation of effective safety protocols for withdrawal of train services (Vande Bharat variants) in the event of major failures like defective door, deflated spring, communication failure etc. were proposed and same are being followed.
- ii. To ensure the safety of train operation in event of emergency situation like fire, necessary training in the following aspects were proposed while recommending operation of Vande Bharat trainsets:
 - To uncouple the semi-permanent Schaku coupler in about 15 minutes in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.
 - Sequence of operations to be performed before accessing HT equipment.
 - Action to be taken in case of Passenger Alarm Chain Pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.
- iii. Issue of unusual incident of fire in battery box of Vande Bharat Trains was discussed and deliberated during a meeting held at RDSO regarding statutory inspection of Vande Metro trainset and following identified remedial measures were proposed & adopted to prevent the occurrence of unusual incident of fire in battery box of Vande Bharat Trainsets:
 - In case, any critical parameter related to safe train operation like temperature of battery box goes beyond the threshold limit, a message should immediately pop up in the Driver Display Unit (DDU).
 - Aerosol Based Fire Suppression System of adequate capacity similar to those provided in electrical panels must be fitted in battery box to prevent any such incident in future.
 - Camera fitted outside the coach should also capture the view of battery boxes to capture any tell- tale sign of smoke/fire.
 - Battery Charger, Battery Module System & Battery Mains Contactor located in the battery box are directly exposed to the battery module. As this may cause malfunctioning of these electronic equipment, a suitable partition may be provided between to prevent any such incident.
- iv. Door opening mechanism with detection of 10 mm obstruction and provision of "anti-drag feature" have been proposed and recommended during statutory inspection.
- v. Following points were discussed during coordination meeting with DG/RDSO held on 12/12/2024 and considered for implementation: -

- Implementation of standard common charging units of common rating with uniform power inputs across the all types of coach variant have been discussed and was agreed for implementation.
 - Provision of Vigilance Control Device (VCD) have been mandated for EMU/MEMU rakes and self-propelled vehicles & item have been included in the relevant specifications.
 - Regarding issue of jerks on LHB coaches, RDSO has been advised to identify the solutions which can be implemented in a short time span & advise ZRs both short term as well as long term modifications.
 - The issue of standardization of fire safety aids in different Rolling Stocks across the PUs and vendors was discussed and deliberated. RDSO has agreed to issue a standard specification for Fire and Smoke Detection System with Fire Alarm System in all AC coaches and Fire Detection cum automatic Suppression systems for power / pantry cars & on-board and underslung electrical cubicles.
- vi. Provision of cameras inside and outside the coach for coverage of entire coach by CCTV and to capture the picture of the persons standing over the entire length of platform have been proposed while recommending operation of Vande Metro trainset.
 - vii. Pre-recorded Passenger Safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel, have been proposed while recommending operation of Vande Metro trainset.
 - viii. Provision of voice logger/recording for Emergency Talk Back Unit and communication between driver and train manager have been recommended during statutory inspection of AC EMU rakes.

b. Wagons:

- i. The issue of different speeds of same wagon under different loading combination have been raised to RDSO, Railway Board vide letter dated 07.11.2024 and following actions have been taken by RDSO/ Board:
 - a. Railway Board has issued necessary instruction to RDSO for issue of speed certificate for a particular wagon type with common single speed in loaded condition (with all possible loading combination) and a single speed in empty condition vide Railway Board's letter dated 29.11.2024.
 - b. Regarding the uniform speed of wagons within the same family, RDSO has taken initiative towards obtaining common speed with standardization of wagons under "Mission Raftaar" for its operation over IR/DFC.
- ii. Regarding inefficient use of high axle load wagons, RDSO has been advised to review the speed limit of 25T axle load wagon up to 45 kmph in loaded condition over Indian Railways as deliberated during the coordination meeting with DG/RDSO held on 12/12/2024.

- iii. The issue of wagon door hitting the OHE masts and signal posts in case of its fall in running condition, and proposed modifications (to reduce the height of wagon doors and improvement in door locking system) have been deliberated during the coordination meeting with DG/RDSO held on 12/12/2024. The implementation of these modifications have been taken up by Railways in depots during ROH.
- iv. Requirement of lashing/locking for specified goods/ commodity were proposed to be mentioned in the GA drawing of respective wagons along with detailed procedure and stipulations as highlighted during statutory inspection of various wagons like BOST, BWBL, BRNARORO etc. The same is being ensured while recommending operation.

c. Track Machine:

- i. The provision for attachment of machine with goods / passenger train is considered to be unsafe and have been advised to be prohibited.
- ii. Provision of signal exchange light (signal flashing scheme) similar to Vande Bharat for the machines having air-conditioned cabs have been proposed while considering stock for recommendation.
- iii. For ensuring safety of train operation of departmental Rolling Stock over DFCCIL, it has been proposed that DFCCIL should have their own suitable operating crew cadre for (LP, ALP & LI) instead of private man through OEM.
- iv. The provision of CCTV cameras with recording facility along with voice recording inside the cabs of the machine shall be explored in future design of the machine.
- v. Fire safety measures such as Fire Detection cum Suppression System as provided in LHB Pantry Car & Power Car should also be provided in the engine room and DG set, wherever provided, for all track machines.
- vi. Fire safety measures such as Fire Detection System as provided in LHB AC coaches should also be provided in the camp coaches attached with track machines.

IV. EXPEDITIOUS IMPLEMENTATION OF KAVACH OVER INDIAN RAILWAYS:

KAVACH is an indigenously developed Automatic Train Protection (ATP) System meant to provide protection to the trains against Signal Passing at Danger (SPAD), over speed and collisions. KAVACH provides continuous update of Movement Authority (distance up to which the train is permitted to travel without danger). Hence, during unsafe situations when brake application is necessitated, and the Crew has either failed to do so, or is not in position to do so, automatic brake application shall take place. KAVACH has additional features to display information like speed, location, distance to signal ahead, Signal aspects etc. in

Locomotive cab and also generation of Auto and Manual SOS messages (Distress message) from Locomotive as well as from the Station unit in case of emergency situation. The communication between Stationary KAVACH and Loco KAVACH units shall be Safety Integrity Level 4 (SIL 4) certified as per the CENELEC standards for Railways. Communication between two or more Loco KAVACH systems, Non-Signaling based additional collision protection (i.e. Head-on, Rear-end & Side Collisions) and Manual SoS are non-SIL based (i.e. not failsafe).

The important features in **KAVACH** System are:

- i. Prevention of Signal Passing at Danger (SPAD).
- ii. Cab-Signaling, Loop Line Speed Control.
- iii. Protection against overspeed.
- iv. Protection of Roll back and Reverse movements
- v. Prevention of Side-collision in block section
- vi. Prevention of Head-on & Rear end collisions.
- vii. LC Gate Automatic Warning.
- viii. Save Our Souls (SOS) Messages.
- ix. Computation of Train Length.
- x. Shunt Limits Validation
- xi. Centralized live monitoring of Train movements in Networking Monitoring System (NMS).

V. SAFETY MEASURES FOR TRAIN OPERATIONS AT 160 KMPH

- a. Railways shall ensure provision of sturdy fencing in section of standard design to prevent trespassing by human & cattle which poses a threat to trains in compliance of Para 202 of IRPWM 2024.
- b. Level crossing gates should be eliminated in the 160 kmph section. In exceptional cases, relaxation should be taken but duly ensuring adequate safety measures for public safety. Hangers/frills may be provided on the booms of lifting barriers to prevent cases of 2 wheelers & public passing underneath barrier of closed gate.
- c. As the leading coach of Vande Bharat train set are much lighter than the locomotive, hitting of any obstruction or even cattle run over may lead to serious accident at higher speeds. Therefore:
 - i. Railway shall identify regular trespassing locations/cattle ingress and to avoid trespassing at these locations, suitable mechanism such as deployment of RPF personnel, regular patrolling, providing subway (for passing farmers along with cattle) etc. shall be put in place.
 - ii. Periodic drives shall be conducted to check and prevent trespassing by RPF with concerned departments by way of counselling of residents of

land adjoining Railway track and by conducting surprise checks to act as deterrent.

- d. It should be ensured that run through line is not platform line for safety of occupants and rail passengers. In case of non-compliance, RPF/station staff shall be exclusively deployed on platform at the time of passing of above train for safety of public duly ensuring suitable precautionary measures.
- e. While increasing sectional speed to 130/160 kmph, several new permanent speed restrictions have been introduced in sections having sharp curves. Presence of large numbers of PSRs and TSRs keep the Loco Pilot under constant stress. Railways should make sincere efforts to reduce number of PSRs by easing curves, increasing transition lengths and simplifying yard layouts. Wherever considered prudent, PSRs can be combined to reduce total number of PSRs.

VI. SAFE WORKING OF CONTRACTORS - PROTECTION AT WORK SITE:

Worksite protection is a major safety concern. There have been accidents while execution of work parallel to existing Railway track due to non-provision of proper safety arrangement as stipulated in IRPWM para 819 - Safe Working of Contractors at Work Site.

For ensuring the proper work site safety, Railway shall ensure all the provisions of IRPWM Para-819. MOU shall be made between Railway Authorities and Executing agency regarding additional safety precautions. Further, Division may engage experts of critical sectors having domain knowledge of Railways through Project Supervision Services Agency (PSSA). Worksites which are prone to accident may be monitored by control office by providing CCTVs at these locations.

VII. RESTORATION OF CRS SANCTION FOR EXEMPTED SAFETY RELATED WORKS:

The Commission of Railway Safety (CRS) plays a vital role in ensuring checks and balances, safeguarding the overall interest of Railway Safety. Delegating such powers to executing authorities may create a conflict of interest, where performance pressure could override safety protocol. The following exempted works are critical to passenger safety and should be brought back under the purview of CRS by the Railway Board:

- a. **Bridges (Minor, foot-over, and road-over):** These structures are essential to passenger safety. As Minor and Major bridges share similar structural characteristics, any unsafe condition can lead to similar risks. Independent safety certification is therefore crucial.

- b. **Dedicated Freight Corridors (DFC):** Around 80% of DFC lines run parallel to existing Indian Railways (IR) lines. Any accident or derailment on DFC can directly impact IR operations. The recent rear-end collision on 02.06.2024, which infringed the IR main line and caused injuries and damage, underscores the need for CRS sanction before opening DFC lines near IR tracks.
- c. **Automatic Signaling:** Recently two major accidents (in ECoR and NFR) occurred in newly commissioned automatic signaling territories. Inquiries revealed serious misunderstandings of operational rules, highlighting the need for inspection and sanction by CRS.
- d. **2x25 kV Traction System:** This new traction system has distinct protection, earthing, and clearance requirements compared to the existing 25 kV system. Its implementation should be subject to inspection and sanction by CRS.
- e. **KAVACH Safety System:** As it interfaces with braking and signaling systems through complex wiring, KAVACH must be brought under CRS sanction to ensure all relevant safety standards are met.

PART - B

SOME OF THE MEASURES ADOPTED BY INDIAN RAILWAYS TO BRING ABOUT OVERALL IMPROVEMENT IN SAFETY:

Indian Railway has taken various measures over the years for improvement in quality and maintenance of its assets e.g. Signaling, Track, Bridge and Rolling Stock etc. to improve safety.

I. IMPROVEMENTS IN SIGNALING SYSTEMS

a. Electrical/Electronic Interlocking:

To enhance safety in train operations and make it efficient, **Modern Signaling Systems** comprising of Panel Interlocking/Route Relay Interlocking/Electronic Interlocking (PI/RRI/EI) with Multi Aspect Colour Light Signals (MACLS) are being provided. In the recent years decision has been taken to provide Electronic Interlocking (EI) only, being the latest technology. So far 6628 stations (covering about 99.7% of interlocked Broad Gauge stations) on Indian Railways have been provided with such systems (RRI/PI/EI), replacing the obsolete Multi Cabin Mechanical Signaling System. Mechanical Signaling is eliminated at 41 stations in 2024-25. Presently, 12 Zonal Railways are free from orthodox Mechanical Signaling on Indian Railways. In the financial year 2024-25, 374 stations have been provided with Electronic Interlocking (EI) on Indian Railways.

b. Block Proving Axle Counters:

To enhance safety and improved mobility, automatic verification of complete arrival of train without manual intervention before granting line clear to receive next train and to reduce human element, Block Proving by Axle Counter (BPAC) is being provided at stations having centralized operation of points and signals. As on 31.03.2025, Block Proving by Axle Counters (BPAC) has been provided on 6127 block sections. In the financial year 2024-25, 240 Block Sections have been provided with Block Proving Axle Counters (BPAC) on Indian Railways.

II. OTHER ASSISTIVE TECHNOLOGY FOR PREVENTING COLLISIONS

- a. KAVACH is a highly technology intensive system, which requires safety certification of highest order. KAVACH was adopted as a National ATP system in July, 2020.
- b. KAVACH has been deployed for 1,465 Route Kms on South Central Railway and 80 Route Kms on North Central Railway. Further, Kavach works are in progress on Delhi - Mumbai & Delhi - Howrah corridors (approximately 3000 Route km). Tenders have been invited for approx. 15000 Route Kms on HDN routes & other important sections including Delhi - Chennai and Mumbai - Chennai corridors, out of which works of 9941 RKM have been awarded.
- c. Project for equipping 10,000 Locomotives has been finalized. 69 number of loco sheds have been prepared for equipping with KAVACH.

III. IMPROVEMENTS IN TRACK STRUCTURE AND MAINTENANCE

- a. Renewal and laying of new passenger running loop lines has been permitted with new 60 kg rails. Minimum sleeper density and ballast cushion has also been increased to 1660 No./km and 300 mm respectively during renewal of passenger running loop lines and laying of new passenger running loop lines.
- b. High performance rail clamps have been adopted permitting speed restriction of 50 kmph under continuous watch.
- c. For better and fast operation of hopper valves, remote operated electro-mechanical gates are being provided in ballast DMTs.
- d. For attention of slacks by machine only, it has been decided that each ADEN shall be provided one Multi-Purpose Tamper (MPT) (ACS-2 of IRPWM-2024).
- e. To monitor track parameters of loop lines and other yard lines, an item has been added in Inspection Schedule of sectional JE/SSE/P. Way. Frequency of 3 months and 6 months have been prescribed for measurement of track parameter of passenger running loop lines and all other running & non-running lines respectively (ACS-3 of IRPWM-2024).

- f. To upgrade the track quality on routes having sectional speed up to 110 kmph, limit of vertical & lateral acceleration peaks has been reduced to 0.15g from 0.20g (ACS-3 of IRPWM-2024).
- g. Track Maintenance Standards (gauge & twist) have been upgraded over passenger running loop lines vide RB's letter no. 2024/CE-II/TK/Track Tolerance dated 28.10.2024.
- h. Similarly, Track Maintenance Standards (gauge & twist) have been upgraded over those goods running lines, the derailment on which may affect the traffic movement on main lines or passenger running loop lines vide RB's letter no. 2024/CE-II/TK/Track Tolerance dated 30.10.2024.
- i. Concept of Yard Drainage Plan (similar to ESP, SP) has been introduced for proper & designed yard drainage vide RB's letter no. 2015/CE-II/TK/14 dated 11.12.2024.

IV. TECHNOLOGICAL INTERVENTION IN BRIDGE MAINTENANCE

Various technologies used for bridge maintenance are as under:

- a. **Adoption of New Technologies for Bridge Inspection:** Drone-based inspections, 3D Scanning of riverbeds, Water Level Monitoring systems installed at identified bridges for regular monitoring as required and Underwater inspection using Robotic Remote Operated Vehicles (RORV) methods.
- b. **Bridge Management System (BMS):** A web-based portal successfully implemented across Indian Railways which is widely used across Indian Railways for monitoring of bridge information.
- c. **Tunnel Management System (TUMS):** A web based portal for inspection and maintenance of tunnels across IR for monitoring of tunnels is underway and it is designed to be integrated with the Bridge Management System (BMS) to streamline operations.

V. IMPROVEMENTS IN FREIGHT ROLLING STOCK

- a. **Improved design Open Wagons:** Adoption of open wagons for transport of bulk commodities.
- b. **Upgraded Bearings:** Upgraded bearings having low torque grease seals and polyamide cage being adopted progressively for reducing online bearing failures.
- c. **Upgraded High Tensile Centre Buffer Coupler (CBC):** Upgraded CBC having better mechanical properties introduced for reducing incidence of train parting.
- d. **Enhanced Reliability of Brake Systems:**

- i. Implementation of upgraded 11-inch brake cylinders in place of 10-inch into Bogie Mounted Brake Systems (BMBS) and upgraded material for brake beam pocket liner.
 - ii. Improved slack adjuster.
 - iii. Implementation of 3 straps of improved securing of 100Ltrs. Auxiliary air reservoir for 55 wagon variants.
- e. **Upgraded EM Pad Design-B:** Improved Elastomeric Pad (EM Pad Design B) which demonstrated a significantly lower failure rate of only 0.16% in field trials, compared to 6.49% for the older Design-A.
- f. **Strengthening of BCFC, BFNV & BOST wagons:** Additional cross members and upgraded underframe design and also revision of the standard format for periodic inspection of Tipplers.
- g. **Instructions on Loading & Lashing:** A comprehensive compendium containing all the latest drawings and instructions for loading and lashing consignments on wagons was issued to avoid reroute failure.

VI. IMPROVEMENTS IN COACHING ROLLING STOCK

Indian Railways is taking following steps to further strengthen the safety and reliability of Railway coaches

a. Large scale proliferation of LHB coaches:

Indian Railways is continuously inducting large number of LHB coaches which are technologically superior with features like Anti climbing arrangement, Air suspension (Secondary) with failure indication system and less corrosive shell. These coaches have better riding and aesthetics as compared to the conventional ICF coaches. The Production units of Indian Railways are producing only LHB coaches from April 2018 onwards. In FY 2024-25, total 5744 no. of LHB coaches has been manufactured. Further till June 2025, total 46604 LHB coaches have been manufactured.

b. Improving fire safety in the operational coaches:

i. Provision of Fire Extinguishers in all coaches:

Fire extinguishers have been provided in all variant of operational coaches viz. AC, SLR, Pantry, Power, Non AC coaches.

ii. **Fire detection and Suppression system provided in all Pantry cars and Power cars**

To improve fire safety measures in Pantry & Power Cars, all the Production Units are manufacturing Power Cars and Pantry Cars with provision of FDSS only. Further all operational Pantry & Power Cars have also been provided with FDSS systems.

iii. **Fire and Smoke Detection System in all AC coaches.**

For early detection of smoke & fire in coaches, Automatic Fire and Smoke Detection System are being provided in the AC coaches. The specifications for Automatic Fire and Smoke Detection System have been upgraded integrating the air brake system in the coaches with Fire and Smoke detection system. Further, fitment in all AC coaches has been completed with Fire and Smoke Detection System.

iv. **Aerosol based Fire Detection and Suppression System:**

The electrical cubicles of all newly manufactured LHB coaches have been provided with this system. Further, the fitment in Zonal Railways is being done in phased manner. 23216 coaches have been covered till March 2025. Further, all LHB pantry cars are provisioned with flameless cooking.

c. Introduction of new Rolling Stock: -

1. Vande Bharat Chair Car Trains

- i) Presently, 144 Vande Bharat train services are in operation across the country, covering different locations in 24 states.
- ii) Total 90 rakes have been manufactured March 2025.
- iii) These Vande Bharat trains have world class safety features and modern amenities:

- KAVACH-Prevents Signal Passing at Danger (SPAD), Head-on & Rear end collision, automatic whistling at LC gates, cab signaling etc.
- Aspiration type FSDS system provided in each coach.
- Improved bogies-Light-Weight Bogie with superior ride performance.
- Automatic external plug doors which remain closed during operation of trains.
- Aerosol based Fire detection and suppression system in electrical panels and Toilets.
- Provision of CCTV in each coach and driver cabs.
- Advance computerized Electro-pneumatic braking system facilitating lower Emergency Braking distance.
- Emergency talk back unit.

- Alarm push button
 - Wider sealed gangway
 - Higher acceleration with design/operating speed of 180/160 KMPH.
- iv) Further, 2-Vande Bharat Trains suitable for round the year operation in Kashmir Valley (Sub-zero temperatures) have also been turned out.

2. Namo Bharat Rapid Rail

- i) Harnessing the features of Vande Bharat trains, Namo Bharat Rapid Rail has been introduced with operational speed of 130 kmph to revolutionize the travelling experience of suburban and regional commuters for inter-city short distance travel.
- ii) These Namo Bharat trains have world class safety features and modern amenities:
 - Centrally controlled Double Leaf Automatic Sliding Doors.
 - CCTVs for safety and passenger surveillance.
 - Mobile charging sockets.
 - Fire Detection System.
 - Continuous LED lighting with Energy Efficient Lighting system.
 - Emergency Talk System.
 - Modular interior with Cushioned Seats and Sealed Flexible Gangway
 - FRP Modular Toilets with vacuum evacuation.
 - Fully Air-Conditioned trains with Driver cab AC

3. Amrit Bharat Trains:

- i) Total 06 rakes of Amrit Bharat (2 Rakes Ver 1.0 and 04 Rakes of Ver 2.0) are currently running in 14 services till date
- ii) In addition to version features like Dust sealed gangways, PAPIS, CCTV and semi-permanent coupler etc, further 100 rakes Amrit Bharat Trains have been envisaged from IR Production Units. These Amrit Bharat Trains has been designed with several additional features like.
 - Jerk Free Semi-Automatic Couplers with crash tube.
 - Improved Crashworthiness in coaches.
 - Provision of EP assist braking systems.
 - Aerosol based fire suppression system in electrical cubicles.
 - Improved design of Ladder for ease of climbing on the berth.

4. Progressive use of Air Springs:

For enhancing safety and reliability of passenger coaches, the suspension system has been improved with provision of air springs at secondary stage capable to maintain constant height at variable loads. The newly manufactured mainline & sub-urban coaches are being provided with Air Spring in secondary suspension.

5. Provision of Double Acting doors in coaches:

Double Acting door in coaches are two-way swing AC compartment doors for easy evacuation of passengers. Such doors provided in AC coaches so as to improve the fire worthiness and enable passengers to quickly evacuate from the coach in the event of fire.

VII. LEVEL CROSSING GATES

- i) During the year 2024-25, 808 Nos. Manned Level Crossings gates (Broad gauge (BG)) were eliminated.
- ii) Presently 11,094 Manned LC (MLC) Gates are interlocked with signals on BG Routes, as on 31.03.2025. 298 LC Gates have been Interlocked in 2024-25.
- iii) Sliding Boom for Level Crossings are provided to improve Safety in train operations, in case of damage to lifting barrier by any vehicle. Sliding Boom have been provided on 8155 Level Crossings Gates up to 31.03.2025. Sliding Boom for Level Crossings (LCs) has been provided at 488 LCs in 2024-25.

VIII. FENCING

During the year 2024-25, total 4203 Kms of fencing has been provided in Indian Railway.

**DETAILS OF SERIOUS RAILWAY ACCIDENTS INQUIRED INTO BY COMMISSIONERS OF RAILWAY
SAFETY DURING THE YEAR 2024-25.**

1. Accident of Train no. 12876 ANVT-PURI Neelanchal Express at Km.330/15 in Suisa station yard under Ranchi division of South Eastern Railway on 01.06. 2024 at about 07:26 hours.



- | | | | |
|----|---|---|--|
| A) | CAUSE | : | Occurred due to failure of equipment i.e. metallic carbon strip working pantograph of the train. |
| B) | CASUALTIES | | |
| | KILLED | : | 01 |
| | GRIEVOUS INJURY | : | 01 |
| | SIMPLE INJURY | : | 00 |
| C) | COST OF DAMAGES TO RAILWAY PROPERTY | : | Rs. 18,76,454 |
| D) | NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER | : | 04 |

2. Rear end collision of Train No. UP GVGN Load with RTPR Load at NSIR station of EDFC and Derailment of loco no.60059, 09 BOXNL of GVGN and 04 wagon of RTPR Load resulted in fouling of UP & DN main line of IR and further Collision of derailed locomotive no.60059 with loco of Passenger Train no.04681 UP causing grievous injury to both Loco Pilots of UP GVGN and Derailment of Loco and damage to 02 coaches of the Passenger Train between Sadhoogarh-Sirhind Stations of UMB Division of Northern Railway on 02.06.2024 at 03:16 hours.



- A) CAUSE : The Loco Pilot and Assistant Loco Pilot fell asleep while approaching the NSIR home signal, resulting in the overshooting of the loop line starter signal S39 and collision with the stationary UP RTPR Load
- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 00 |
| GRIEVOUS INJURY | : | 02 |
| SIMPLE INJURY | : | 00 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs. 42,64,95,000
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 11

3. **Rear end collision between Train No. DN 13174 Kanchanjunga Express and DN GFCJ Container between section Rangapani (RNI) Chatterhat (CAT) BG Electrified Double Line section of Katihar Division of Northeast Frontier Railway on 17.06.2024 at 08:50 hours.**



- A) CAUSE : Error in Train Working
- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 10 |
| GRIEVOUS INJURY | : | 10 |
| SIMPLE INJURY | : | 33 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs.2,77,64,853.59
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 12

4. Derailment of Train No. 15904 Dn Chandigarh-Dibrugarh Express which derailed in Motiganj-Jhilahi block section (Km 638/8-24) of Gonda-Gorakhpur BG Electrified Double line route of LJN Division of North Eastern Railway on 18.07.2024 at about 14.32 hours.



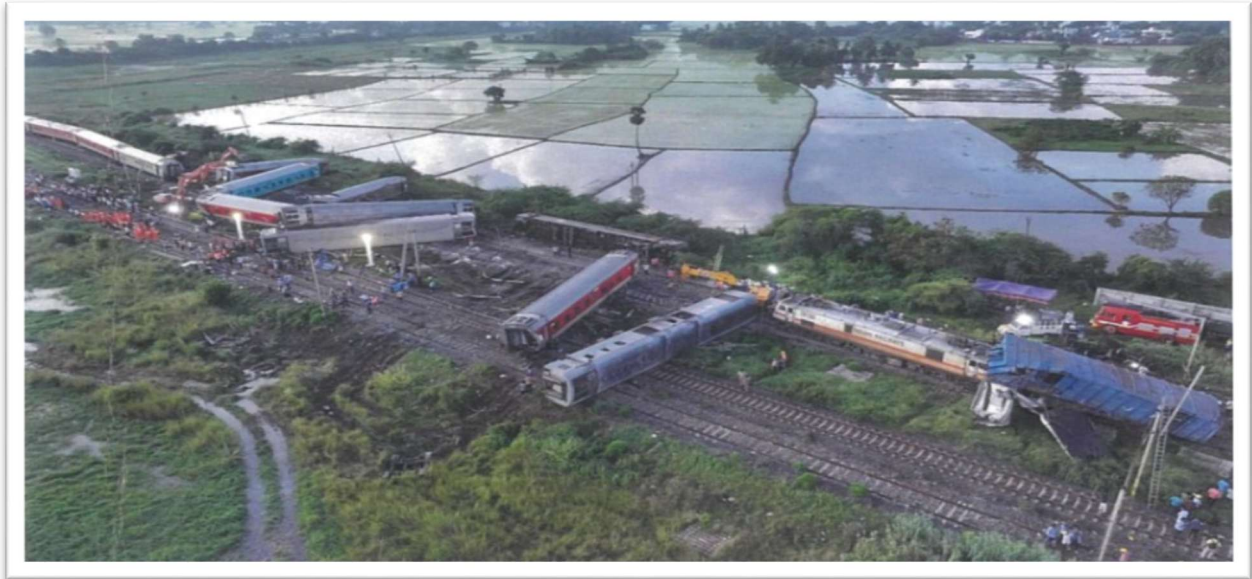
- A) CAUSE : Dynamic buckling due to abnormal LWR
- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 04 |
| GRIEVOUS INJURY | : | 09 |
| SIMPLE INJURY | | |
| TRIVIAL INJURY | : | 03 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs . 50,59,06,160
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 06

5. The derailment of Goods Train N/JBCT and side collision of Train No. 12810 (HWH-CSMT Mail) with derailed Goods Train N/JBCT in Rajkharswan - Barabamboo BG Electrified Section of Chakradharpur Division of South Eastern. on 30.07.2024 Railway at about 03:38 hours.



- A) Cause : Due to failure of equipment and error in train working.
- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 02 |
| GRIEVOUS INJURY | : | 00 |
| SIMPLE INJURY | : | 24 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs. 51.08 Crores
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 06

6.Rear Collision between Train No. 12578 Mysuru Dharbhanga Bagmati Express and stabled rake of Empty BCN wagons at Kavaraipettai station (Down Loopline) at Km 39/31-32 in Chennai Central - Gudur double line electrified section in Chennai Division of Southern Railway which occurred on 11.10.2024 at about 20.31 hours.



A)	CAUSE	:	Due to removal of the fittings and connection of LH Switch of Point number 51B and butting of LH tongue rail to stock rail after the removal of the fittings and the connections, even when the RH tongue rail was already butted against the stock rail. This happened not due to automatic/sudden failure of any equipment/assets but due to the forceful alteration in the designed position of LH tongue rails, by the miscreant(s).
B)	CASUALTIES		
	KILLED	:	00
	GRIEVOUS INJURY	:	04
	SIMPLE INJURY	:	05
	TRIVIAL INJURY	:	
C)	COST OF DAMAGES TO RAILWAY PROPERTY	:	Rs. 29,45,27,197
D)	NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER	:	14

7.The accident of long-haul Train no. N/PCMC and N/TSWS on UP line in Khongsara (KGS)-Bhanwartonk (BHTK) BG Electrified section of Bilaspur (BSP) division in South East Central Railway on 26.11.2024 at about 11.11 hours.



A)	CAUSE	:	Error in Train working
B)	CASUALTIES		
	KILLED	:	00
	GRIEVOUS INJURY	:	00
	SIMPLE INJURY	:	00
C)	COST OF DAMAGES TO RAILWAY PROPERTY	:	Rs.7.64 Crores
D)	NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER	:	06

8.Derailment of 11 no. of coaches & 01 Pantry car of 12551 (SMVB – KYQ AC Superfast) Exp at KM 401/2-14, BG, Electrified Double Line Auto Signaling section between KNPR-NRG of CTC-BHC section in KUR Division on 30.03.2025 at about 11:54 hours.



- | | | | |
|----|---|---|------------------------|
| A) | CAUSE | : | Error in Train working |
| B) | CASUALTIES | | |
| | KILLED | : | 01 |
| | GRIEVOUS INJURY | : | 01 |
| | SIMPLE INJURY | : | 10 |
| C) | COST OF DAMAGES TO RAILWAY PROPERTY | : | Rs.19.55 Crores |
| D) | NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER | : | 07 |

APPENDIX-II

DETAILS OF ACTIVITIES OF THE COMMISSION OF RAILWAY SAFETY DURING 2024-25

(A) NEW LINES :

S.No.	Date of Authorization / Inspection	Section/ Line Opened	Circle	Kms	Total Kms
1	21.08.2024	Amalner-Vighanwadi	CC	32.93	141.85
2	15.10.2024	Satna - Barethiya	CC	17.839	
3	27.02.2025	Vighanwadi-Bid	CC	34.85	
4	26.02.2025	Naigaonpura Kumra-Khilachipur	CC	22.328	
5	26.02.2025	Jharkhera-Sant Hirdaram Nagar	CC	20.50	
6	18.03.2025	Govindgarh-Bhagwar (3rd line)	CC	13.40	
7	10.08.2024	Bakhtiyarpur-Karnanuti	EC	4.215	80.333
8	10.09.2024	Karota Patner-Ashok Dham	EC	8.000	
9	26.10.2024	Kakarghatti - Shisho	EC	8.8	
10	27.12.2024	Barogopinathpur - Mayanpur	EC	7.717	
11	13.03.2025	Khagaria-Alauli	EC	18.646	
12	27.03.2025	Joyarambati-Barogopinathpur	EC	7.16	
13	28.03.2025	Garhwa Road	EC	4.12	
14	29.03.2025	Supaul-Pipra	EC	21.68	
15	01.07.2024	Reasi-Sangaldan	NC	45.87	104.26
16	14.01.2025	Shri Mata Vaishno Devi Katra-Reasi	NC	16.50	
17	18.03.2025	Palwal-New Prithala	NC	9.14	
18	03.02.2025	Bhanupali Yard between Shri Anandpur Sahib-Nangal Dam (Temporary Diversion)	NC	3.20	
19	29.03.2025	Deoband-Roorkee	NC	29.55	
20	21.03.2025	Gwalior-Sheopurkalan	NEC	28.66	40.50
21	31.03.2025	Jhansi-Mahoba	NEC	9.08	
22	06.06.2024	Aishbagh-Manaknagar	NEC	2.76	
23	12.06.2024	Pawakhali-Thakurganj	NFC	23.24	70.416
24	04.06.2024	Agartala-Nischintapur	NFC	6.60	
25	22.08.2024	Bairabi-Hortoki	NFC	16.915	
26	28.11.2024	Arariya Court - Rahmatpur	NFC	8.242	
27	28.03.2025	Shokhuvi-Molbom	NFC	15.42	

28	26.11.2024	Mandapam-Pamban (Re-construction of Pamban Bridge)	SC	3.966	30.274
29	18.03.2025	Khajjidoni-Lokapur	SC	7.30	
30	28.03.2025	Linganbandi-Kushtagi	SC	9.94	
31	29.03.2025	Chikkamagaluru-Hadihalli	SC	9.07	
32	02.01.2025	Darsi-Malavaram	SCC	15.71	37.76
33	11.01.2025	Manikgarh-Balharshah	SCC	4.44	
34	20.09.2024	Hasanparthi Road-Kazipet-Warangal	SCC	17.608	
35	13.08.2024	Ex Sonapur-Jharmunda	SEC	28.76	71.918
36	07.11.2024	Jharmunda-Boudh	SEC	16.270	
37	26.03.2025	Boudh-Champapur-Purunaktak	SEC	26.89	
TOTAL				577.30	577.30

(B) ADDITIONAL LINES (DOUBLE AND MULTIPLE LINES):

S.No	Date of Authorization / Inspection	Section/ Line Opened	Circle	Kms	Total Kms
1	22.04.2024	Vijay Sota-Beohari	CC	30.11	279.17 1
2	26.04.2024	Pimparkhed-Chalisingaon	CC	31.29	
3	16.05.2024	Hardua New-Majhagawa Fatak	CC	11.81	
4	16.05.2024	Ganeshganj-Pathariya	CC	12.9	
5	01.07.2024	Hinganghat-Nagari	CC	16.6	
6	02.07.2024	Puntamba-Kanhegaon	CC	8.66	
7	05.07.2024	Malkheri-Mahadevkheri	CC	6.88	
8	23.08.2024	Wathar-Palsi	CC	9.39	
9	23.09.2024	Rahuri-Padhegaon	CC	14.09	
10	07.10.2024	Joba - Marwasgram	CC	7.488	
11	23.10.2024	Shirawade - Shenoli	CC	21.56	
12	08.11.2024	Aslana – Damoh (3rd line)	CC	12.734	
13	18.12.2024	Nagri - Chikni Road	CC	11.906	
14	16.01.2025	Majari-Tadali (3rd line)	CC	19.3	
15	14.01.2025	Bharatwada-Godhani (3rd line)	CC	6.26	
16	13.03.2025	Chalisingaon-Pachora (3rd Line)	CC	44.49	
17	18.03.2025	Girwar-Ganeshganj (3rd Line)	CC	13.703	
18	14.06.2024	Kumarbagh-Champatia	EC	7.78	133.84 2
19	02.07.2024	Warisaliganj-Nawadah	EC	18.70	
20	31.07.2024	Japla-Nabinagar Road	EC	15.83	
21	08.08.2024	Chanpatia-Sathi	EC	9.005	
22	14.08.2024	Jogidih-Gurmura (Br. No. 309, Cut Connection)	EC	1.2	

23	21.08.2024	Raghopur-Pratapganj (Br. No. 24, Cut Connection)	EC	0.894	
24	22.08.2024	Bhairoganj-Harinagar	EC	8.517	
25	04.12.2024	Anpara Road - Anpara	EC	4.808	
26	10.01.2025	Richughuta-Bendi	EC	20.51	
27	10.01.2025	Obra Dam-Phaphrakund	EC	5.95	
28	29.01.2025	Kaparpura-Piprahan	EC	9.92	
29	05.02.2025	Nawada-Tilaiya	EC	17.747	
30	13.03.2025	Sigsigi-Untari Road	EC	10.42	
31	25.03.2025	Kathautia Halt	EC	2.561	
32	07.05.2024	Hadiya-Tapa-Rampura Phul-Lehra Muhabbat	NC	31.23	103.07 5
33	22.09.2024	Janghai-Baryaram-Ugrasenpur	NC	17.07	
34	04.01.2025	Ugrasenpur-Phulpur-Saraichandi- Tharwai-Phaphamau	NC	31.06	
35	26.03.2025	Gaura Maa Barahi Devi Dham-Maa Belha Devi Pratapgarh Jn	NC	23.715	
36	26.06.2024	Bhatni-Aunrihar	NEC	14.17	231.28 8
37	09.06.2024	Jhansi-Mahoba	NEC	21.58	
38	19.06.24	Mathura-Jhansi	NEC	7.82	
39	26.06.2024	Mathura-Jhansi	NEC	5.6	
40	30.06.2024	Manikpur-Bhimsen	NEC	21.18	
41	17.07.2024	Ragaul-Yamuna South Bank	NEC	28.63	
42	04.07.2024	Burhwal-Gonda	NEC	24.07	
43	13.09.2024	Yamuna Bridge-Agra Fort	NEC	2.26	
44	05.10.2024	Mau - Shahganj	NEC	19.986	
45	22.10.2024	Banaras - Prayagraj - Madhosingh	NEC	0.188	
46	21.10.2024	Banaras - Madhosingh - Prayagraj	NEC	2.224	
47	26.10.2024	Hetampur – Dholpur (3rd Line)	NEC	4.696	
48	11.12.2024	Prayagraj Rambagh - Jhusi	NEC	5.404	
49	18.12.2024	Antri - Sandalpur	NEC	8.618	
50	11.01.2025	Dilwara-Birari (Chord line between New Lalitpur- Dilawara)	NEC	6.84	
51	22.01.2025	Mathura-Jhansi (3rd line between Sandalpur-Sithauli)	NEC	9.32	
52	23.01.2025	Prayagraj-Pt. Deen Dayal Upadhyay (3rd line between Bheerpur- Karchana)	NEC	10.18	
53	26.03.2025	Dullahpur-Sadat	NEC	18.511	
54	28.03.2025	Mau-Shahganj-Khorason Road- Phariha	NEC	20.011	75.028
55	03.06.2024	Barpeta Road-Pathsala	NFC	21.4	
56	27.06.2024	Chaygaon-Mirza	NFC	15.58	
57	03.09.2024	Sorbhog-Barpeta Road	NFC	6.22	

58	29.10.2024	Baihata - Nalbari	NFC	31.828	
59	10.06.2024	Majorda-Cansaulim	SC	2.58	27.108
60	30.08.2024	Tinaighat-Duski	SC	9.525	
61	28.02.2025	Penukonda- Makkajipalli	SC	11.706	
62	09.03.2025	Chennai Beach-Chennai Egmore (4th Line)	SC	3.297	
63	24.08.2024	Madhira-Errupalem	SCC	14.84	114.57 2
64	23.08.2024	Kazipet-Vijaywada Jn	SCC	4.717	
65	17.09.2024	Giddalur-Diguvametta	SCC	12.01	
66	21.09.2024	Hasanparthi Road-Kazipet-Warangal	SCC	19.41	
67	27.12.2024	Panyam - Bugganipalli Cement Nagar	SCC	19.035	
68	29.01.2025	Bona Kalu-Motumari Jn (3rd line)	SCC	10.91	
69	13.03.2025	Nalwar-Sulehalli (By pass Line)	SCC	24.05	381.51 2
70	24.03.2025	Khammam-Pandillapalli (3rd Line)	SCC	9.6	
71	26.04.2024	Lanjigarh Road-Ambodala Doikalu	SEC	25.39	
72	02.05.2024	Narayangarh-Belda	SEC	13.33	
73	30.04.2024	Gatora-Bilaspur Jn Cabin	SEC	4.78	
74	12.05.2024	Lakshmipur Road-Singaram-Tikiri	SEC	21.89	
75	09.05.2024	Paniajob-Bortalao	SEC	8.9	
76	23.07.2024	Nawagaon-Bangurkela	SEC	11.18	
77	27.06.2024	Dhenkanal-Hindol Road	SEC	40.93	
78	28.06.2024	Dhantewara-Kamalur	SEC	12.35	
79	05.07.2024	Badhwabara-Ghunghuti	SEC	12.6	
80	10.07.2024	Kurkura-Kanaroan	SEC	24.34	
81	19.09.2024	Kamptee-Kalumna	SEC	6.64	
82	30.09.2024	Gorapur-Darliput	SEC	12.64	
83	21.01.2025	Ghunghuti - Birsinghpur	SEC	16.200	
84	27.12.2024	Ranital - Bhadrak	SEC	5.045	
85	07.01.2025	Salekasa-Dhanoli (3rd line)	SEC	7.47	
86	30.01.2025	Bhupdeopur-SPGCL Block (4th line)	SEC	9.05	
87	31.01.2025	Doikallu-Muniguda-Bissamcuttak (3rd line)	SEC	30.15	
88	20.02.2025	Umaria-Lorha (3rd line)	SEC	9.99	
89	22.02.2025	Belda-Danten (3rd line)	SEC	16.363	
90	31.03.2025	Birsinghpur-Umaria (3rd Line)	SEC	29.716	
91	09.03.2025	Bacheli-Kirandaul	SEC	9.143	
92	18.03.2025	Chandia Road-Vilayatkal Road (3rd Line)	SEC	9.456	
93	27.03.2025	Parbatonia-Orga	SEC	7.753	

94	29.03.2025	Purulia-Kotshila	SEC	36.206	208.15 4
95	27.04.2024	Nawa City-Govind Nagar	WC	7.11	
96	30.05.2024	Rau-Dr Ambedkar Nagar	WC	11.39	
97	29.06.2024	Rajkot-Padadhari	WC	25.03	
98	29.07.2024	Dharewada-Kamli	WC	10.55	
99	30.07.2024	Brayla-Chaurasi Namli	WC	11.28	
100	23.09.2024	Od-Thasra	WC	22.11	
101	24.09.2024	Nimach-Harkhia Khal	WC	12.69	
102	06.10.2024	Kamli - Bhandumotidau	WC	18.887	
103	07.10.2024	Goregaon - Kandiwali	WC	4.54	
104	25.10.2024	Thasra - Sevaliya	WC	12.85	
105	30.12.2024	Vavadi Khurd - Godhra	WC	6.440	
106	31.01.2025	Ratangarh-Molisar	WC	18.71	
107	19.02.2025	Harkhia Khal-Malhargarh	WC	12.983	
108	10.03.2025	Sevaliya-Vavdi Khurd	WC	18.9	
109	03.03.2025	Padahari-Hadmatiya	WC	14.684	
TOTAL				1553.7 5	1553.7 5

(C) GAUGE CONVERSION: -

S. No.	Date of Authorization/ Inspection	Section	Circle	Kms	Total Kms
1	17.09.2024	Omkareshwar Road-Sanwad	WC	3.15	115.213
2	16.07.2024	Dr. Ambedkar Nagar-Patal Pani	WC	2.86	
3	31.07.2024	Deshalpur-Sansora	WC	25.5	
4	18.10.2024	Sansora - Naliya	WC	48.019	
5	31.12.2024	Kalol - Katosan Road	WC	35.684	
6	19.03.2025	Abhanpur-Rajim	SEC	16.671	16.671
TOTAL				131.88	131.88

STATUTORY INSPECTIONS OF ROLLING STOCK :

S.No.	Rolling Stock	Date of Inspection	Inspected by
1	NG coaches of KLK-SML	08.03.2024	CCRS
2	BWBL/Wagon	03.10.2023	CCRS
3	Vande Metro Coaches for operation up to 110 kmph	02.08.2024	CCRS
4	Rail Milling Machine Model SF06-IN	18.07.2024	CCRS

5	Dynamic Track Stabilizing Machine DGS D	16.08.2024	CCRS
6	Point and Crossing Tamping Machine UNIMAT D	16.08.2024	CCRS
7	8-car coach manufactured by M/s. Alstom Transport India Ltd. of MMRCL.	11/12.09.2024	CRS/WC
8	Ballast Regulating Machine with hopper USP 2010 SWS	08.10.2024	CCRS
9	Continuous Tamping Machine with integrated Dynamic Stabilizer.	08.10.2024	CCRS
10	12/16 car Vande Metro Coaches for operation up to 130 kmph	13.01.2025	CCRS
11	NG Vistadome Coaches of KLK-SML	22 & 23.11.2024	CCRS
12	8-Wheeler Catenary Maintenance Vehicle of DMRC (BG, 3200mm)	16 & 17.01.2025	CMRS
13	8-Wheeler Catenary Maintenance Vehicle of DMRC (SG, 3200mm)	16 & 17.01.2025	CMRS
14	8-Wheeler Catenary Maintenance Vehicle of DMRC (SG, 2900mm)	16 & 17.01.2025	CMRS
15	Alstom make RS for operation over Indore Metro of MPMRCL	21 & 22.01.2025	CMRS
16	LWCZDACP	03.02.2025	CCRS
17	RBMV for Civil Engineering works with MMU Equipment Model RBMV.02.B (Transportation Code- RBMVC D	24.02.2025	CCRS
18	SG Metro Rail Cars manufactured by M/s CRRC for BMRCL	24.02.2025	CRS/SC
19	8-wheeler Tower Wagon TW D	24.02.2025	CCRS

METRO PROJECTS:

(a) National Capital Region Transport Corporation (NCRTC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	23.12.2024	Sahibabad - New Ashok Nagar	CMRS	13.016
TOTAL				13.016

(b) Maharashtra Metro Rail Corporation (MAHA-METRO)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	25.09.2024	Civil Court (UG)-Swargate	CMRS	3.43
TOTAL				3.43

(c) Uttar Pradesh Metro Rail Corporation (UPMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	21.03.2025	Motijheel Station (excl)-Kanpur Central	CMRS	6.35
TOTAL				6.35

(d) Metro Railway Kolkata

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	22.03.2025	Joka Depot-Majherhat	NFC	20.38
TOTAL				20.38

(e) Gujrat Metro Rail Corporation (GMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	07.08.2024	Motera Stadium-Sector 1	WC	14.98
2	07.08.2024	Motera Stadium (Excl) - Sector-1	WC	14.98
3	31.08.2024	GNLU-Gift City	WC	4.66
4	02.12.2024	Thaltej - Thaltej Gam	CMRS	1.449
TOTAL				36.069

(f) Delhi Metro Rail Corporation (DMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	29.07.2024	Janakpuri West-Krishna Park Extension	CMRS	1.82
TOTAL				1.82

(g) Madhya Pradesh Metro Rail Corporation (MPMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	25.03.2025	Gandhi Nagar-Super Corridor	CMRS	5.26
TOTAL				5.26

(h) Mumbai Metro Rail Corporation (MMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	03.10.2024	Aarey JVLR Station (incl) - Bandra Kurla Complex Station (incl)	CMRS	12.695
TOTAL				12.695

(i) Bengaluru Metro Rail Corporation (BMRC)

S. No.	Date of Authorization / Inspection	Section	Circle	Kms
1	04.10.2024	Nagasandara (excl) - Madavara (incl)	SC	2.953
TOTAL				2.953

Grand Total of Metro = 101.97 Kms