



सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

COMMISSION OF RAILWAY SAFETY



ANNUAL REPORT FOR 2018-2019

BY

CHIEF COMMISSIONER OF RAILWAY SAFETY

LUCKNOW

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 31.03.2019 is hereby, presented by the Chief Commissioner of Railway Safety to the Central Government to be laid on the table of the Parliament. The report highlights the activities performed by the Commission of Railway Safety during the above mentioned period namely opening of new railway lines, doubling of existing lines, gauge conversion works and electrification of Railway lines, investigation of serious train accidents, condonation of infringements of schedule of dimensions and sanctions of minor works, movement of over dimensioned consignments, new rolling stock. This Report contains valuable information with respect to measures for improving safety in Railway working and will be useful for Railway personnel.

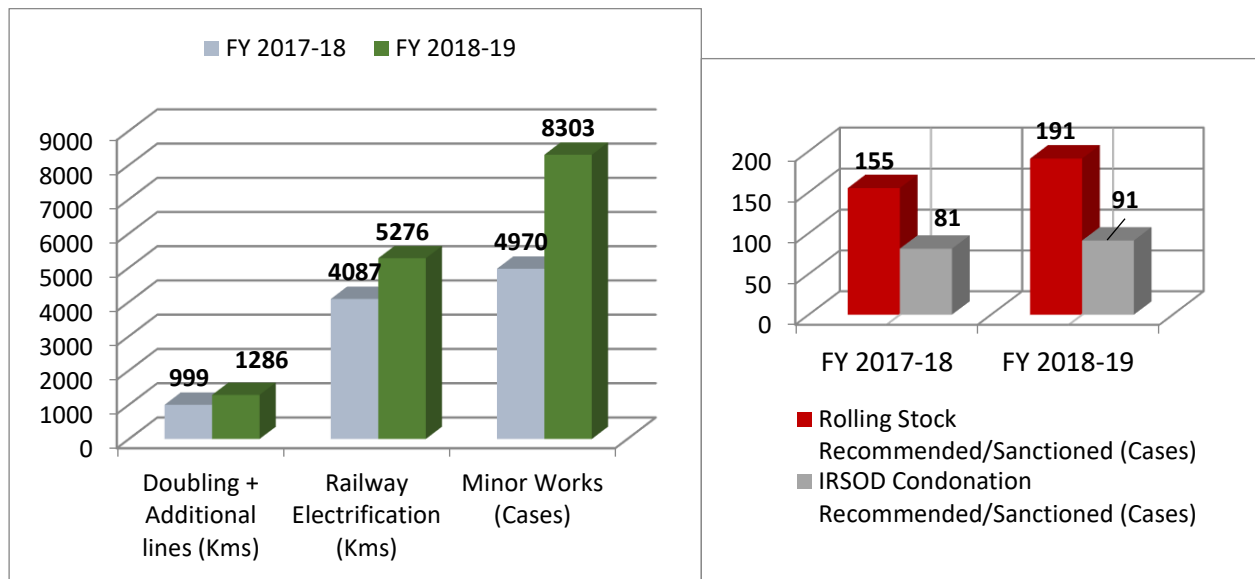
(S. K. PATHAK)
Chief Commissioner of Railway Safety

PLACE: LUCKNOW
DATE : 19.11.2020

Comparative Performance of the Commission during 2018-19:

Activities	FY 2017-18	FY 2018-19	Variation in FY 18-19	
	Total	Total	Value	Percentage
Doubling + Additional lines (Kms)	999	1286	287	28.73%
New Lines (Kms)	409	475	66	16.14%
Gague Conversion (Kms)	454	597	143	31.50%
Total (DL+GC+NL) (Kms)	1862	2358	496	26.64%
Railway Electrification (Kms)	4087	5276	1189	29.09 %
Minor Works (Cases)	4970	8303	3333	67.06%
Rolling Stock Recommended/ Sanctioned (Cases)	155	191	36	23.22%
IRSOD Condonation Recommended/ Sanctioned (Cases)	81	91	10	12.34%

Graphical Representation of the above Performance:



**SUMMARY OF THE ACTIVITIES OF COMMISSIONERS OF
RAILWAY SAFETY HIGHLIGHTS**

Functions of the Commission of Railway Safety				
	Name of Activity	Details of Activity	Quantity	Reference (Chapter no.)
I.	Inquiries of serious accidents	(a) No. Statutory inquiries entrusted to the commissioners (b) No of recommendations in finalized reports made out of (a) above	09 93	Chapter III and Appendix I
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 (d) Diversion lines (e) Railway Electrification Metro Railways a) New lines of Delhi Metro Rail Corporation b) New lines of Hyderabad Metro Rail Corporation c) New lines of Chennai Metro Rail Limited d) New lines of Lucknow Metro Rail Corporation e) New lines of Nagpur Metro Rail Project	475 kms 1286kms 597kms 8kms 5276kms 121kms 26kms 20kms 15kms 18kms	Appendix II

III.	Sanction accorded by the Commissioners for minor works, condonation of infringements, movement of over dimensioned, consignments, new rolling stock etc.	<p>a) For execution of New Minor Works.</p> <p>b) For Condonation of infringements to Schedule of Dimension.</p> <p>c) For movement of over dimensioned consignment</p> <p>d) For running of new types of Rolling stock</p>	<p>8303</p> <p>65</p> <p>NIL</p> <p>171</p>	<p>Chapter II Para 2.4</p> <p>Chapter II Para 2.5</p> <p>Chapter II Para 2.6</p> <p>Chapter II Para 2.7</p>
IV.	Proposals recommended for sanction by Central Government.	<p>a) For Condonation of infringements to Schedule of Dimension.</p> <p>b) For running of new types of Rolling stock</p>	<p>26</p> <p>20</p>	<p>Chapter II Para 2.5</p> <p>Chapter II Para 2.7</p>
V.	Inspection of Govt. Railways	Periodic inspections	12002kms	Chapter II Para 2.8

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Chapter – I

ORGANISATION AND FUNCTIONS

1.1 INTRODUCTION –

In British Era, the construction & operation of railways were entrusted to private companies. Consulting engineers were appointed by the British Govt. of India to exercise effective control over them. But later on, the government undertook the construction of Railways themselves, then 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 connection with the Bihta disaster, recommended that Railway Inspectorate should be separated from the Railway Board, 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, Council of State in 1940 and 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**), through whom Government Inspectors of Railways (**GIR**) would report to Government, was created. Later on Inspectorate office was placed under the Department of Communication and now it is under Ministry of Civil Aviation (**MoCA**).

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

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

CRS are recruited from amongst officers of Indian Railways (IR) but they do not revert back to Railways and are absorbed in the Commission of Railway Safety under Ministry of Civil Aviation.

1.2 ORGANISATIONAL STRUCTURE -

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

1.2.2 There are 9 Commissioner of Railway Safety (CRS) 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 9 to 11 office staffs consisting of Sr. Private Secretary (1), Office Superintendent(1), UDC(2), LDC(2) and Multi Tasking Staff.

One circle office of Commissioner of Metro Railway Safety(**CMRS**) in the CRS under the Ministry Of Civil Aviation at New Delhi has been created by competent authority vide notification No.S.O.138(E) dated 10th January 2018.

In each Circle, there is one post of Deputy Commissioner of Railway Safety (Dy.CRS) and they are from different disciplines of Indian Railways (IR). At present, Dy. CRS post in

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

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

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 MoCA. It has Sr. Private Secretary (1), Section Officer (1), Assistants Section Officer (5), Personal Assistant (1), UDC (1), LDC (1) and Multi Tasking Staff.

In the Technical Wing, there are 4 Dy. CRS of various disciplines (Mechanical, S&T, Electrical Engineering and Transportation) to assist CCRS and CRS as and when required on technical matters. This wing works as think tank and maintaining the institutional memory / strength of the Commission of Railway Safety. To assist the Technical Wing, the requisite staff / officers are posted such as Technical Assistant (2) LDC(2), Stenographer(2), Staff Car Driver (1) and Multi-Tasking Staffs (4). Furthermore, one Assistant Director (Official Language)& one Junior Hindi Translator are posted in technical Wing who act as a nodal agency for all the RAJBHASHA related matters for whole of the Commission of Railway Safety.

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

1.2.4 Organizational Chart is given below:-

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1.3 **VACANCIES IN THE COMMISSION** - As on 31.03.2019, 03 posts of CRS/CMRS and 04 posts of Dy.CRS/Dy.CMRS are vacant.

1.4 **CHANGE IN ORGANISATION** - All the posts of Dy.CRS (Technical) were upgraded to Selection grade w.e.f. **14.06.2010**. Recruitment rules for Dy. CRS (Technical) in selection grade were notified vide GSR No. 136 dated 29.05.2012.

1.5 **INCUMBENCY OF OFFICERS –**

1.5.1 **Chief Commissioner of Railway Safety, Lucknow**

S.No.	Designation	Period	Name
(i)	CCRS	01.04.18 to 08.07.18	Vacant
		09.07.18 to 31.03.19	Shri S K Pathak

1.5.2 **Commissioners of Railway Safety (CRS)**

S.No.	Circle office	Period	Name of CRS
(i)	CRS-CC	Full Duration	Shri A K Jain
(ii)	CRS-EC	01.04.18 to 31.07.18	Shri P K Acharya
		01.08.18 to 19.12.18	Vacant
		19.12.18 to 31.03.19	Md. Latief Khan

(iii)	CRS-NC	01.04.18 to 08.07.18	Shri S K Pathak
		09.07.18 to 31.03.19	Vacant
(iv)	CRS-NEC	01.04.18 to 06.06.18	Shri S K Pandey
		07.06.18 to 31.03.19	Vacant
(v)	CRS-NFC	01.04.18 to 09.01.19	Vacant
		10.01.19 to 31.03.19	Shri R K Sharma
(vi)	CRS-SC	Full Duration	Shri K.A. Manoharan
(vii)	CRS-SCC	Full Duration	Shri Ram Kripal
(viii)	CRS-SEC	01.04.18 to 26.11.18	Vacant
		27.11.18 to 31.03.19	Shri A K Rai
(ix)	CRS-WC	Full Duration	Shri Sushil Chandra
(x)	CMRS-New Delhi	Full Duration	Vacant

1.5.3 Deputy Commissioners of Railway Safety in CCRS office

S.No.	Dy.CRS	Period	Name
Railway Safety Wing			
(i)	Dy.CRS(General)	Full Duration	Shri Rajiv Kumar
Technical Wing			
(i)	Mechanical	Full Duration	Shri Uttam Prakash
(ii)	Operating	Full Duration	Smt. Indu Rani Dubey
(iii)	Electric Traction	Full Duration	Shri Shalabh Tyagi
(iv)	Signal & Telecom	Full Duration	Shri B S Yadav

1.5.4 Deputy Commissioners in Circle Offices

Deputy Commissioner (Signaling & Telecommunication)			
S.No.	Circle office	Period	Name
(i)	CRS-EC	Full Duration	Shri D. Banerjee
(ii)	CRS-WC	Full Duration	Shri Avinash Sangoley
(iii)	CRS-NFC	Full Duration	Shri S. Chattopadhyay
(iv)	CRS-NC	01.04.18 to 13.01.19	Shri Rajmal Khoiwal
		14.01.19 to 31.03.19	Vacant
(v)	CRS-SC	Full Duration	Shri E. Srinivas
Deputy Commissioner (Civil Engg.)			
(vi)	CRS-SEC	Full Duration	Vacant
(vii)	CRS-SCC	Full Duration	Shri Rama Mehar

(viii)	CRS-NEC	Full Duration	Vacant
Deputy Commissioner (Electric Traction)			
(ix)	CRS-CC	Full Duration	Shri G.P. Garg
Deputy Commissioner of Metro Railway Safety			
(x)	CMRS	Full Duration	Vacant

1.6 JURISDICTIONS OF CIRCLES OFFICES-

1.6.1 As on 31st March, 2019, total Route kilometers (RKM) of Indian Railways under different circles were as under:-

Name of Circle Office	Head Quarter	Route Kms	Railway Administrations
CRS-CC	Mumbai	8133.16	CR, WCR & KR
CRS-EC	Kolkata	6896.67	ER & ECR
CRS-NC	New Delhi	7327.59	NR
CRS-NEC	Lucknow	6999.8	NER & NCR
CRS-NFC	Kolkata	4192.82	NFR & MR
CRS-SC	Bengaluru	9441.2	SR & SWR
CRS-SCC	Secunderabad	6237.63	SCR
CRS-SEC	Kolkata	10410.93	SER, SECR & ECoR
CRS-WC	Mumbai	12103.09	WR & NWR
Total Route Kms		71742.26	

1.6.2 As on 31st March, 2019, total Route Kilometers of Metro Railways under different circles were as under:-

Name of Circle Office	Head Quarter	Route Kms	Metro Railway Administrations
CMRS-NC	New Delhi	371.96	DMRC
		12.89	RMGL
CMRS-SC	Bengaluru	42.00	BMRCL
	Kochi	18.22	KMRCL
	Chennai	56.94	CMRL
CMRS-WC	Mumbai	11.230	MMRC
	Jaipur	9.630	JMRC

CMRS-CC	Mumbai	17.988	NMRC
CMRS-SCC	Hyderabad	35.576	HMRL
CMRS-NEC	Lucknow	23.684	LMRC
Total Route Kms		600.12	

1.7 FUNCTIONS OF THE COMMISSION OF RAILWAY SAFETY:

1.7.1 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 new railways 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.

1.7.2 Functions of the Commissioner of Railway Safety:-

- (a) Authorization for opening of new railway lines:** In terms of Railway Act, 1989, under Section 6, Metro Railway Act, 2002 and the Rules for Opening, 2000, Indian Railways / Metro Railways approach to the respective Commissioner along with their application/proposal seeking sanction of respective CRS for opening of new railway lines, doubling of existing lines, gauge conversion works, electrification of Railway lines etc.

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

On receipt of the application, the CRS scrutinizes the application and if everything is in order then a date of inspection is fixed and intimated to the Railway. On the schedule date the CRS conducts the inspection with his team of officers accompanied by Zonal Railway Headquarter and Divisional officers led by DRM of the respective Division.

After inspection, if CRS is satisfied with its fitness with respect to safety of the passengers; he 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 through CCRS.

If CRS is not satisfied with its fitness with respect to safety of the passengers; he issues the inspection report of the same to the Railway indicating the various deficiencies in the work to be attended to ensure safety of the passengers. It is the discretion of CRS to re-inspect the section after attending all the deficiencies by the Railway before opening the same for public carriage of passengers or else authorizes 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 only after obtaining the sanction of the CRS.

The Ministry of Railway under Policy Circular No. 6 has issued detailed procedure, regarding rolling stock, for the following:

- sanctioning speed of new designs of rolling stock
- dispensation of Oscillation trials
- RDSO Speed Certificate
- movement of newly designed rolling stock
- increasing the speed of existing rolling stock
- sanction for increasing speed of nominated trains on specified routes.
- introduction of new trains
- special trials and conditions of operations
 - heavy haul and running of goods & passenger trains with special configuration on specified routes.
 - Emergency braking distance (EBD) trials,
 - Coupler Force Trials,
 - Rating, Performance and Adhesion trials
 - Signal interference trials

In terms of above provisions, Zonal Railways submits 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 first sanction, Condonation of Board for infringement to the Schedule of Dimensions etc.** After receipt of such applications, CRS examines them as per the provision of Circular No.6 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:

CRS after examining such proposals sends the report, with his recommendations to the CCRS. CCRS after examining the proposal, if found in order, 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.

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, RDSO apply to CCRS for introduction of new rolling stock and increase in 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.

(d) Railway Board has issued the Schedule of Dimensions (revised 2004), Maximum, and Minimum & Recommended Dimensions to be observed on all 1676mm Gauge on IR.

These dimensions given in Schedule-1 of Indian Railway Schedule of Dimensions (IRSOD) (revised 2004) 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.

Earlier, proposal for any infringement to the Schedule of Dimension used to be submitted to CRS. It was then scrutinized by CRS from safety point of view. After examining, CRS was sending the proposals for condonation of infringement to CCRS. Again in CCRS office the proposal was examined and based on the recommendation of CCRS, Railway Board used to grant sanction for the condonation of infringement.

However, 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 para 22A. As per present procedure, proposal for any infringement to the Schedule of Dimension is submitted to CRS which is then scrutinized by CRS from safety point of view. After examining the proposal, if CRS is satisfied that infringement is safe for train operation, he sanctions the condonation of infringement with or without stipulations. If the proposed infringement is beyond the limits defined in the Schedule-II of IRSOD then procedure prior

to this amendment of Opening Rules i.e. 1 October 2018, as mentioned in preceding para, is followed.

- (e) Any consignment which does not adhere to IRSOD, 2004 is treated as an over dimensioned 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) Inspection of running lines to keep themselves familiar with Railway working; and
- (g) Investigation into Serious Railway Accidents and review of reports of other train accidents, inquired by Railways.

1.7.3 Functions of the Chief Commissioner of Railway Safety:

CCRS advises Central Government in all matters relating to Railway Safety, recruitment of officers, postings and promotions, budget and expenditure etc. CCRS deals with:-

- (a) Reports of inspections of new lines, doubling of existing line, gauge conversion works and electrification of railway line done by the Commissioners of Railway Safety are forwarded to Railway Board through CCRS office for obtaining the sanction of the Central Government.
- (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 regarding condonation of infringements to IRSOD received from CRS's 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 and 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 suitable stipulations.
- (e) 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

- (f) Preparation of the Annual Report on the activities of Commission of Railway safety.
- (g) 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 Railway 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. The Central Government before giving its sanction shall obtain a report from the Commissioner regarding fitness of the line for public carriage of passengers.

2.2 ACHIEVEMENTS OF THE COMMISSIONER OF METRO RAILWAY SAFETY:

In 2018-2019, activities of Metro Railway inspections carried out by Commissioners of Metro Railway Safety are summarized below:-

	Metro Railways	(In Kilometers)
(a)	Delhi Metro	120.983
(b)	Nagpur Metro	17.988
(c)	Lucknow Metro	15.1
(d)	Hyderabad Metro	25.66
(e)	Chennai Metro	19.941
	Total	199.68

- 2.3 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.

2.4 NEW MINOR WORKS:

- 2.4.1 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 can be carried out

by Railways only after obtaining the sanction of the CRS. Such works, after being authorized by the Commissioner, are executed by the Railway Administration and opened to traffic under safety certificate signed by concerned railway officers, unless the Commissioner of Railway Safety decides to inspect them before these being brought into use.

During year 2018-19, the Commissioners of Railway Safety have given sanctions for execution of **8303** minor works by Railway Administration.

2.5 WORKS INVOLVING INFRINGEMENTS OF STANDARD DIMENSIONS:

2.5.1 Certain minimum and maximum dimensions, for location of structures near railway lines and in respect of rolling stock have been prescribed and are laid down in "Schedule of Dimensions (SOD)". Railway administrations are required to execute all works conforming to the SOD. In case of any deviation from the SOD either for structure or for rolling stock, Railway administration has to approach the respective Commissioners of Railway Safety for Condonation of these infringements/deviations at their level or at the Railway Board level. In order to obtain such Condonation, a detailed proposal is submitted in the prescribed format to the respective CRS Office. After scrutiny of the proposal, if everything is found in order and the condonation is within the competence of the CRS then the sanction is given by the CRS but if the competence lies with the Railway Board then it is forwarded to CCRS office by the CRS for onward submission to Railway Board. Such proposals are examined in the CCRS office with regard to safety & after approval of CCRS; it is forwarded to Railway Board with certain stipulations for sanction.

2.5.2 During 2018-19, **26** proposal/applications for Condonation of infringements to SOD were recommended by the Commission for sanction by the Central Government.

2.5.3 **65** number of cases of Condonation, within the powers of Commissioners of Railway Safety, were sanctioned by them.

2.6 MOVEMENT OF OVER-DIMENSIONED CONSIGNMENTS:

2.6.1 Sometimes, Railways have to transport Over-Dimensioned Consignments. These consignments are categorized into different classes for which approval of competent authority is required for movement on Indian Railways. The movement of a category of consignment requiring sanction of CRS is forwarded to the concerned CRS who, after examining the proposal from safety point of view, accords sanction.

2.6.2 In 2018-19, no proposal/application for movement of over-dimensioned consignments was received by the Commissioners of Railway Safety from Railways.

2.7 NEW TYPES OF LOCOMOTIVES AND ROLLING STOCK:

- 2.7.1** Section 27 of Railways Act, 1989, prescribes that new rolling stock can be introduced only after prior sanction by the Central Government (CG) and before sanctioning, Central Government shall obtain a report from the Commission of Railway Safety.

During 2018-19, **20** numbers of new types of rolling stock were recommended by the Commission for sanction by the Central Government.

- 2.7.2** As per earlier Railway (Opening for public carriage of passengers) rules, 2000, CRS can sanction movement of new rolling stock on sections of the railway, provided the previous sanction of the Central Government for their running on any other Railway line is available. However, as per revised Railway (Opening for public carriage of passengers) rules (as mentioned in para 1.7.2(c)), now it is sanctioned by GM of Zonal Railways instead of CRS.

During 2018-19, **171** such cases were sanctioned by the CRS.

2.8 INSPECTIONS OF RAILWAY LINES:

During 2018-19, Commissioners carried out inspections of **12002 Km.** of Govt. 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.

- 2.9** **Activities of Commissioners in respect of inquiries into accidents** are given in Chapter – III.

CHAPTER –III

ACTIVITIES OF INVESTIGATION INTO ACCIDENTS

3.1 Commissioners of Railway Safety (CRS) investigate Serious Railway 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:

- Collision
- Fire
- Level crossing
- Derailment
- 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:-

3.4 **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 Indian Penal Code, to a passenger or passengers travelling inside the train or with damage to railway property of a value exceeding Rs. 2 crores. Workmen's trains and ballast trains 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.

3.4.1 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.

3.4.2 Procedure when Commissioner is unable to hold an inquiry:-

When a CRS is unable to take up an inquiry, he is required to inform CCRS of the reasons as to why the inquiry cannot be done by him. In such a case, CCRS can himself 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 agrees with findings, forwards it to the CCRS. In case CRS disagrees with the findings, he returns the enquiry report with his observations to Railways for review.

3.4.3 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 also asked 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 dates, time and place of the inquiry. Accordingly, the CRS inspects the accident site along with the Railway Officers and thereafter conducts the statutory inquiry.

3.4.4 Scope: -

CRS holds inquiries into the 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 modifying existing rules of working 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 also comments on matters, observed by him during the course of his 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.

3.5 INQUIRIES OF SERIOUS TRAIN ACCIDENTS IN 2018-19

3.5.1 During the year 2018-19, 09 serious accidents were inquired by the Commissioners. In these accidents, 08 accidents had resulted in passenger (or crew) fatalities while 01 accident resulted in grievous injury to the passenger.

Out of 09 accidents inquired by the Commissioners, 02 were derailments, 03 were Fire and 04 were unusual occurrence.

3.5.2 Brief details of 09 accident inquiries entrusted to commissioners in 2018-19 is given in Appendix - I. 93 recommendations were made in five inquiry report of the accident of 2018-19 which was submitted and finalized till now.

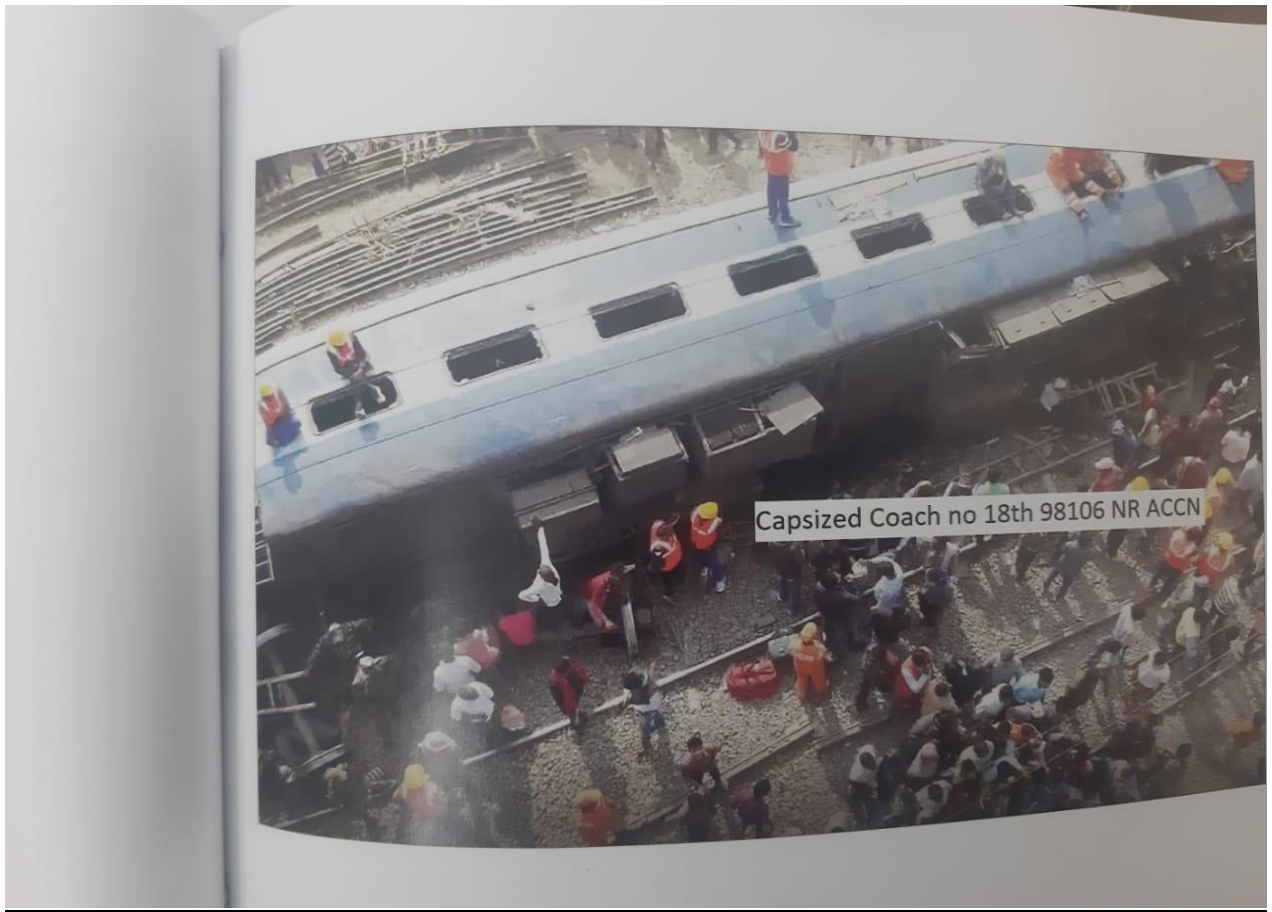
3.5.3 Two accidents mentioned below attracted considerable attention either due to high number of fatalities or injuries to passengers:-

(a) Para 6 of Appendix-Unusual occurrence of Human Run over by train no. 74643 JUC-ASR DMU between Mananwala-Amritsar on Jalandhar city - Amritsar BG line near LC No. S-27 in Firozpur Division of Northern Railway on **19.10.2018**. As a result of the accident, 60 persons were killed, 35 persons sustained grievous injury & 31 persons sustained simple injuries.

(b) Para 5 of Appendix-I:- Derailment of Train no. 14003 UP Malda Town - New Delhi (New Farakka) Exp. at Km. 1009/7-8 in the yard of Harchandpur Railway Station of Lucknow-Rae Bareilly section of Lucknow Division of Northern Railway on 10.10.18 As a result of the accident, 07 passengers were killed, 04 passengers sustained grievous injury & 32 passengers sustained simple injuries.



**Fire accident in Train no. 15904 Chandigarh-Dibrugarh Exp. In Katihar
Division of Northeast Frontier Railway on 22.03.19**



**Accident of 12487 Seemanchal Express in Sonpur Division of East Central
Railway on 03.02.19**

CHAPTER-IV

ANALYSIS OF TRENDS OF ACCIDENTS

4.1 ACCIDENTS:

The term 'accident' means an accident for which a notice is required to be issued by Railway administration under section 113 of The Railways Act, 1989. 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 his 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 (3) of Railway(Notices of and Inquiries into Accidents)Rules,1998, 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 fires in trains), or grievous hurt as defined in the Indian Penal Code or serious injury to Railway property of the value exceeding two crore 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 land slides 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:

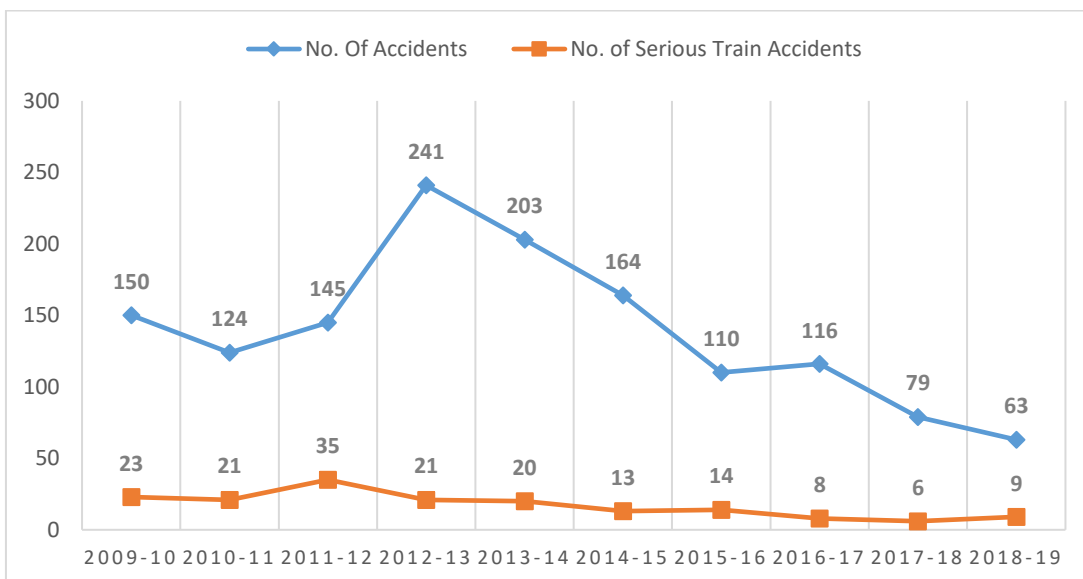
- (1) “ On the receipt of a notice under Section 113 of the occurrence of an accident to a train carrying passengers resulting in loss of human life or grievous hurt causing total or partial disablement of permanent nature to a passenger or serious damage to railway property, the Commissioner shall, 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 Nos. of train accidents and serious train accidents investigated by CRS in last ten years is shown in Figure-1.

Figure-1
Nos. of Accidents



Appreciation of the above indicates that:-

- total number of train accidents had decreased substantially to 63 in the year 2018-19 as against 76 during the year 2017-18.
- number of serious train accidents has increased to 09 in year 2018-19 as against 06 during the year 2017-18.
- the total percentage of accidents inquired by CRS is around 12% except for 2011-12 when it had increased to 24% of the total.
- the total number of accidents till 2010-11 had shown a declining trend but from 2011-12 to 2012-13 there was a sharp increase in numbers.
- after 2012-13 again the number of accidents has shown a declining trend till 2018-19 with 2016-17 being an exception when it increased slightly.

4.3.2 The Commission vide its letter no. S.13011/1/2019-RS dated 15.07.19&27.11.19 sent the statistics of train accidents reported under section 113 for the year 2018-19 to the Railway Board for reconciliation of the figures.

There is variation in number of accidents as reported by Indian Railways and that compiled by the Commission. The figures of accidents collected by the Commission on the basis of data available with the Commissioners, has been taken as final and the same has been analyzed for the purpose of this Chapter.

4.3.3 Breakup of passenger and goods train accidents in 2018-19 and 2017-18 is shown in Table 1.

TABLE 1

SN	Description	2017-18	2018-19
1.	No. of Train Accidents	79	63
2.	No. of Passenger train Accidents	57	55
3.	No. of Goods Train Accidents	22	08
4.	No. of accidents Per million train-	0.01	0.01

	Kilometers (Million train- Kilometers as per Ministry of Railways Annual Statistical report for 2017-18)		
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4.4 RAILWAY-WISE TREND OF ACCIDENTS

- (a) Number of accidents, which occurred in each zonal railway in the years 2018-19 & 2017-18, are shown in Table 2 below:

TABLE 2

SN	Railway	Total number of Train Accidents					
		2017-18			2018-19		
		Passenger	Goods	Total	Passenger	Goods	Total
1.	Central	5	3	8	8	3	11
2.	Eastern	2	0	2	0	0	0
3.	East Central	8	3	11	7	2	9
4.	East Coast	0	4	4	2	0	2
5.	Northern	14	1	15	8	0	8
6.	North Central	6	0	6	2	1	3
7.	North Eastern	2	3	5	5	0	5
8.	Northeast Frontier	0	2	2	4	2	6
9.	North Western	5	0	5	3	0	3
10.	Southern	4	0	4	5	0	5
11.	South Central	3	2	5	2	0	2
12.	South East Central	1	0	1	0	0	0
13.	South Eastern	2	1	3	2	0	2
14.	South Western	1	0	1	2	0	2
15.	Western	2	3	5	4	0	4
16.	West Central	1	0	1	1	0	1
17.	Konkan Rly.	1	0	1	0	0	0

Total=	57	22	79	55	8	63
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Appreciation of above reveals that:-

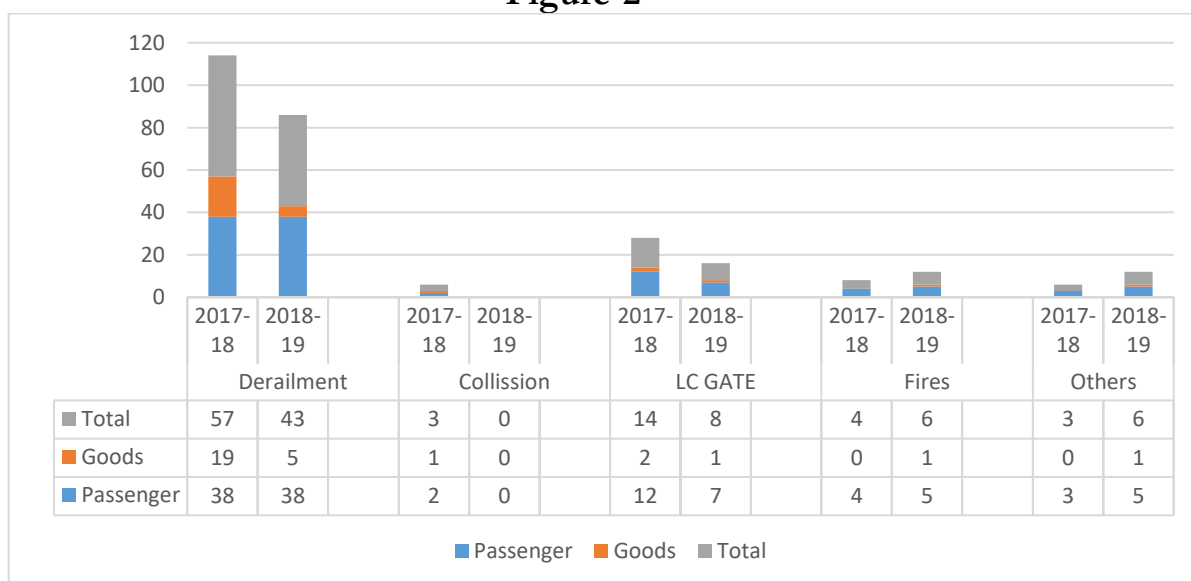
- Number of accidents **reduced** on Eastern, East Central, East Coast, Northern, North Eastern, North Central, North Western, South Central, South Eastern, South East Central, Western, West Central & Konkan Railway.
- Number of accidents has **increased** in Central, Northeast Frontier, Southern, & South Western Railways.
- There is a clear trend of higher number of passenger trains meeting with an accident in comparison to freight trains.

Number of passenger train accidents has reduced to 55 in 2018-19 as against 57 last year i.e. 2017-18. Similarly the goods train accidents has also reduced to 08 against 22 in 2017-18.

4.4 ANALYSIS OF TRAIN ACCIDENTS

Various types of accidents (on account of derailment, level crossings, collision, fire, other causes) for passenger trains and goods trains for the year 2017-18 & 2018-19 is shown in the form of Bar Chart in Figure-2.

Figure-2



Derailments continued to be biggest chunk of train accidents, 72.15% in the year 2017-18 against 68.25% in the year 2018-19. Level Crossing accidents were next, accounting for 12.69% of the railway accidents in the year 2018-19 against 15.19% during the year 2017-18. No accident due to collision occurred in this year.

Fire in trains & other accidents (Miscellaneous Accidents) were 9.52% each, in the year 2018-19 against 5.06% and 3.79%, respectively in the year 2017-18

4.6 CAUSE-WISE ANALYSIS OF VARIOUS TYPES OF TRAIN ACCIDENTS

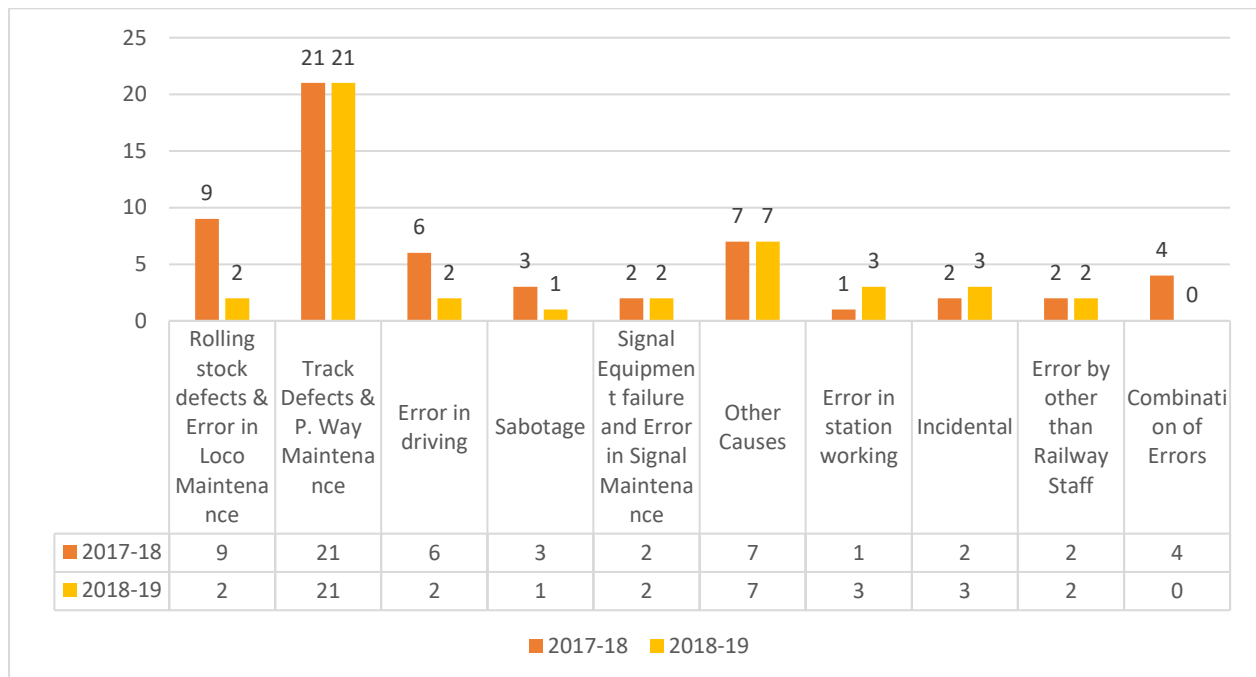
4.6.1 DERAILMENTS

Numbers of derailments were as follows:-

2017-2018	57 (Passenger-38, Goods-19)
2018-2019	43 (Passenger-38, Goods-05)

Cause-wise analysis of derailments in the years 2017-18 & 2018-2019 is shown in Fig.3

Figure-3



There were total 43 derailments, in notified train accidents. The cause wise analysis/break up of derailments is as follows:

- 21 derailments occurred due to P. Way defects.
- 7 derailments occurred due to other causes.
- 3 derailments occurred due to Error in station working.
- 3 derailment were Incidental
- 2 derailments occurred due to Rolling stock defects.
- 2 derailments were due to error in driving.

- 2 derailments occurred due to Signal Equipment and error in Signal maintenance
- 2 derailments occurred due to Error by other than Railway staff.
- 1 derailment was caused by Sabotage.

4.6.2 COLLISIONS

Numbers of collisions was as follows:-

2017-2018	03 (Passenger-02, Goods-01)
2018-2019	00 (NIL)

No accident occurred due to collision during this year.

Figure-4

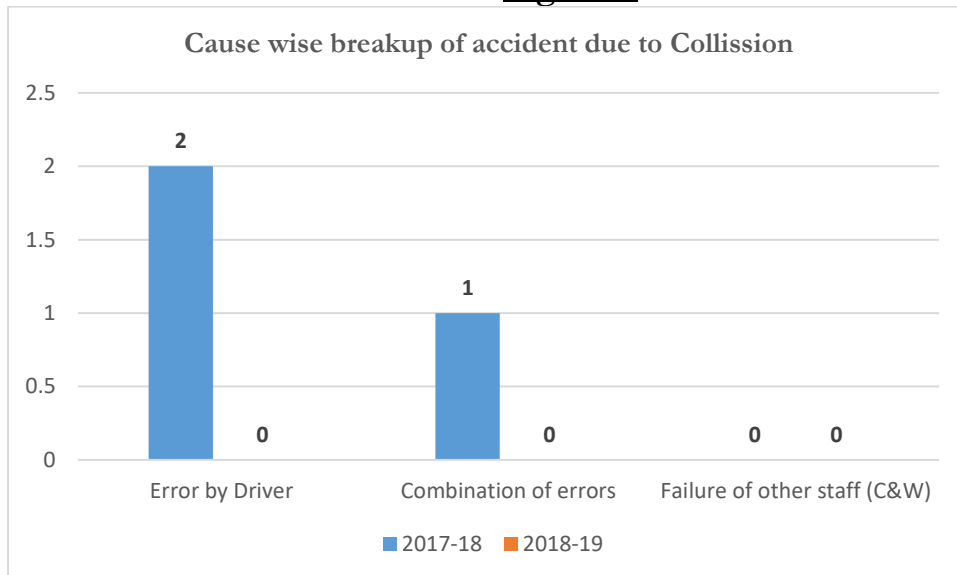


Figure 4 shows cause-wise analysis of collisions during 2018-19 and 2017-18.

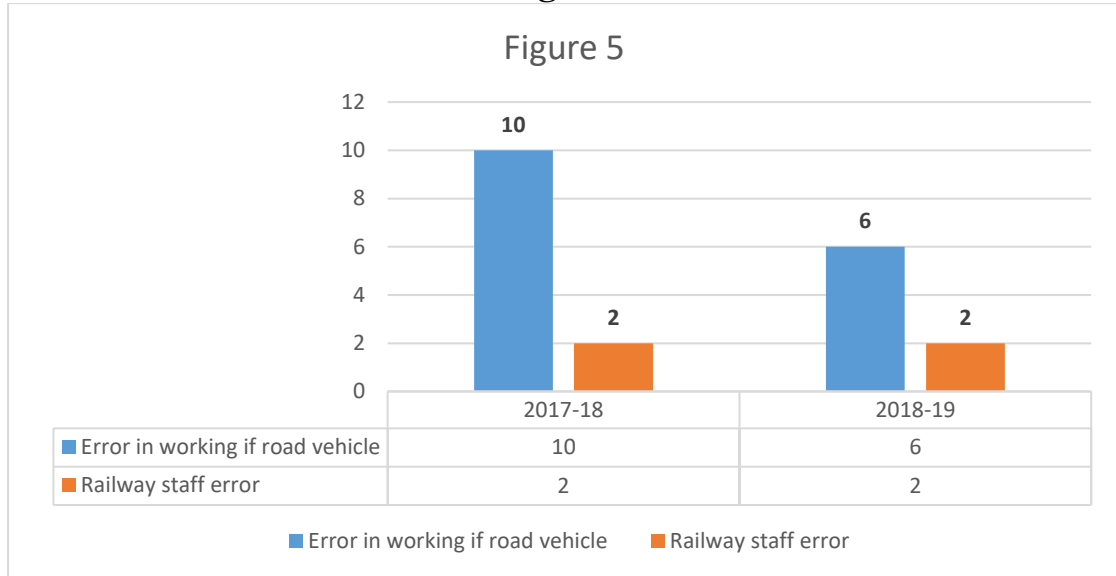
4.6.3 ACCIDENTS AT LEVEL CROSSINGS

Numbers of level crossing accidents were as follows:-

2017-2018 12 (Passenger-10, Goods-02)
 2018-2019 08 (Passenger-07, Goods-01)

Cause-wise analysis of train accidents at level crossings in the years 2017-18 and 2018-19 is shown below.

Figure 5



08 level crossing accidents were notified during the year. Out of these 05 were on unmanned LCs, where right of way conflict has to be resolved by road vehicle driver as trains have first right of way. It was error in working of road vehicles, due to which these accidents occurred.

In 06 cases, accident occurred due to Road User's failure while 02 cases of manned LC gates accident occurred due to failure of Railway staff.

4.6.4 FIRES IN TRAINS

Numbers of Fire cases are as follows:-

2017-2018 04 (Passenger-04, Goods-00)
 2018-2019 06 (Passenger-05, Goods-01)

Figure 6 shows cause-wise analysis of fire accidents in trains during 2017-18 and 2018-19

Figure 6



There were 06 accident of fire in trains during the year 2018-19. The details are as follows:-

- 05 were due to Error by Railway Staff.
- 01 was due to Error by Passenger & outsiders

4.7 TRAIN ACCIDENTS DUE TO HUMAN ERROR

4.7.1 No. of train accidents and contribution of human error (by Railway staff as well as other than Railway Staff) during the year 2017-18 and 2016-17 is shown in Table 4:-

TABLE – 4

SN	Item	2017-18	2018-19
1.	No. of train accidents	79	63
2.	No. of train accidents due to error in working of Railway Staff.	36	39
3.	No. of train accidents due to error in working by persons other than Railway Staff.	19	17
4.	No. of train accidents due to error in working by persons (2+3)	55	56
5.	% of train accidents due to error in working of Railway Staff (2÷1)	45.56	61.90
6.	% of train accidents due to human error (Both Railway and other than Railway Staff) (4÷1)	69.62	88.89

4.7.2 Percentage of train accidents, attributable to error in working by Railway Staff is 61.90% in the year 2018-19 against 45.56% in the year 2017-18. 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 88.89% of train accidents in the year 2018-19 against 69.62% of train accidents in the year 2017-18

4.8 TREND OF SERIOUS TRAIN ACCIDENTS.

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 5 years are compared in Table 5 below:

TABLE 5

SN	Year	No. of accidents	No. of serious accidents	No. of accidents resulting in passenger fatalities	No. of Passenger fatalities including railway crew
1	2014-15	164	13	08	123
2	2015-16	110	14	08	44
3	2016-17	116	08	05	246
4	2017-18	79	06	03	26
5	2018-19	63	09	08	25*
Average for 5 years		106.4	10	6.4	92.8

* Excluding 60 persons killed in unusual occurrence of Human Run over by train no. 74643 JUC-ASR DMU between Mananwala-Amritsar on Jalandhar city - Amritsar BG line near LC No. S-27 in Firozpur Division of Northern Railway on **19.10.2018.**

4.8.2 Number of accidents resulting in passenger fatalities has come down in this period of five years, with 2016-17 being the exception when there was a significant increment in passenger fatalities.

4.8.3 Numbers of serious train accidents were 06 in 2017-18 as compared to 09 in 2018-19. Numbers of train accidents resulting in fatalities were 03 in 2017-18 as against 08 in 2018-19. In 2018-19, number of passenger fatalities was 25 against 26 in 2017-18, however, it excludes 60 non passenger fatalities occurred due to Incident of human run over by train no. 74643 JUC-ASR DMU on 19.10.18 in Firozpur division of Northern Railway

4.8.4 Number of accidents has decreased to 63 in the year 2018-19 as against 79 during the year 2017-18. Number of serious train accidents has however, increased to 09 during the year as against 06 during last year.

4.9 PASSENGER FATALITIES IN TRAIN ACCIDENTS

Nos. of fatalities in serious train accidents in last ten years are shown in figure-7.

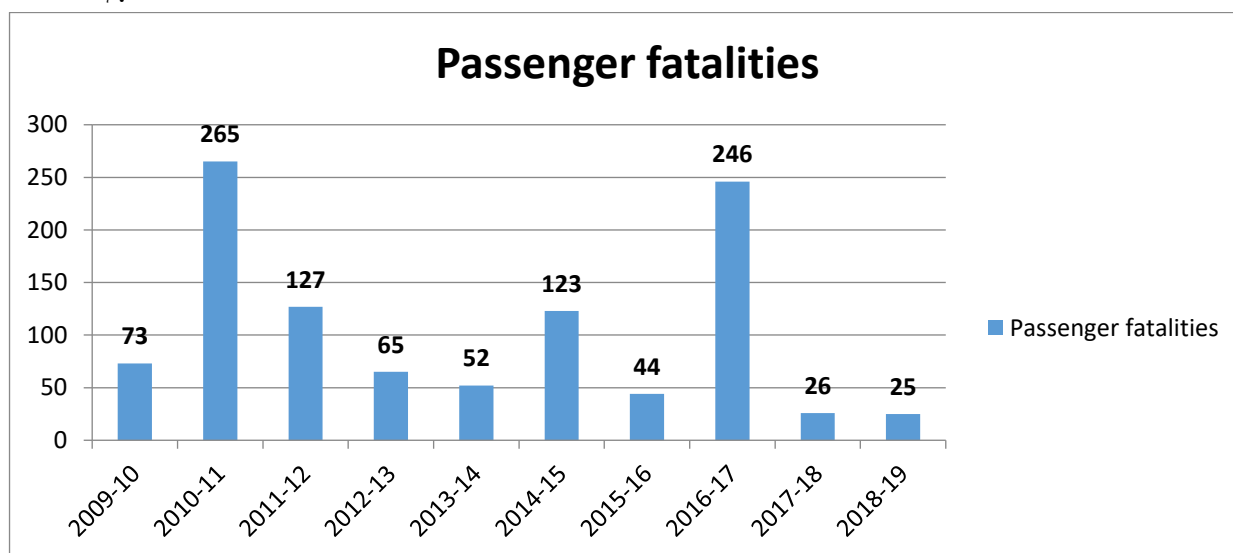


Figure – 7 Passenger fatalities, including Railway Crew & other fatalities in Serious Train Accidents

- I. In 2018-19, the number of passenger fatalities in train accidents was 25 against 26 in 2017-18. It also includes 60 non passenger fatalities occurred due to Incident of human run over by train no. 74643 JUC-ASR DMU on 19.10.18 in Firozpur division of Northern Railway
- II. **Accidents resulting in high persons / passenger fatalities were:**
- III. Unusual occurrence of Human Run over by train no. 74643 JUC-ASR DMU between Mananwala-Amritsar on Jalandhar city - Amritsar BG line near LC No. S-27 in Firozpur Division of Northern Railway on **19.10.2018**. As a result of the accident, 60 persons were killed, 35 persons sustained grievous injury & 31 persons sustained simple injuries.
- IV. Derailment of Train no. 14003 UP Malda Town - New Delhi (New Farakka) Exp. at Km. 1009/7-8 in the yard of Harchandpur Railway Station of Lucknow-Rae Bareilly section of Lucknow Division of Northern Railway on 10.10.18 As a result of the accident, 07 passengers were killed, 04 passengers sustained grievous injury & 32 passengers sustained simple injuries.

4.10 LOSS OF RAILWAY PROPERTY IN ACCIDENTS

Estimated cost of damages to Railway property resulting from train accidents during last ten years are given in Figure-8.

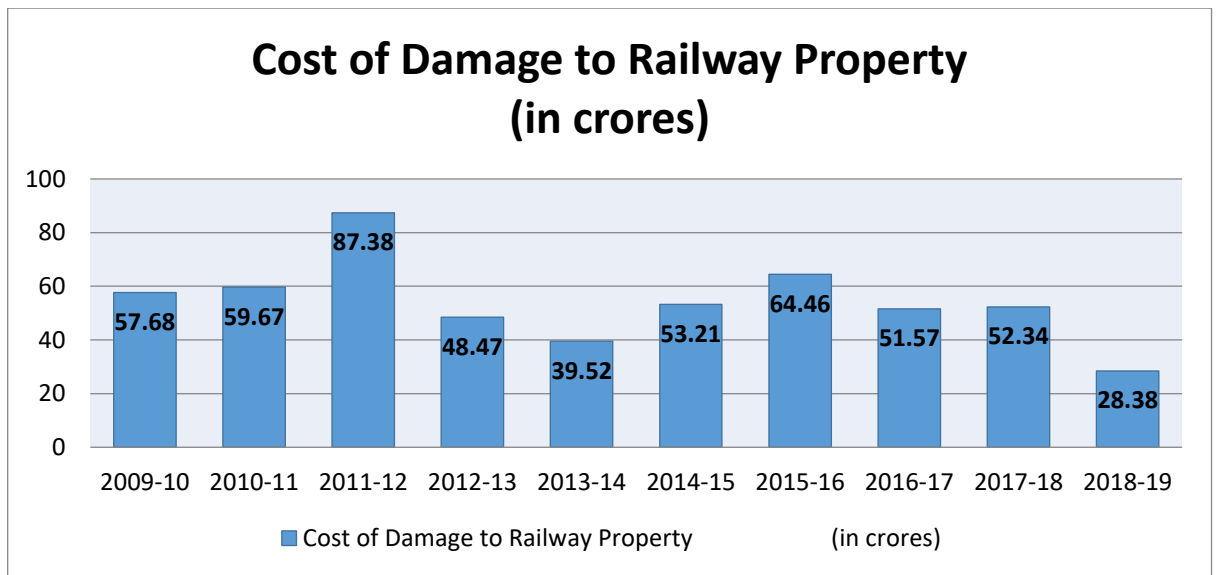


Figure – 8
Loss of Railway Property in train accidents during last 10 years

CHAPTER - V

STATUS OF RAILWAYS' RESPONSE ON ACCIDENT INQUIRY REPORTS

- 5.1** At the end of year 2018-19, no Action Taken Report from Ministry of Railway was received and response was awaited on balance **seventeen** reports. The breakup of these reports is as follows:

Table 6

Year	Action Taken Report (ATR*) received from Railway Board		No. of Pending ATRs
	Received	No. of Recommendations	

2013-14	Nil	Nil	1
2014-15	Nil	Nil	1
2015-16	Nil	Nil	2
2016-17	Nil	Nil	5
2017-18	Nil	Nil	5
2018-19	Nil	Nil	3
Total	Nil	Nil	17

*Action Taken Report by Ministry of Railway on accident inquiry report submitted by CsRS.

From the above table, it is clear that the Action Taken Reports communicated by the Ministry of Railways on the Accident Inquiry Reports of the Commissioners is taking longer time than desirable since Action on accidents as old as that of 2013-14 are also pending:-

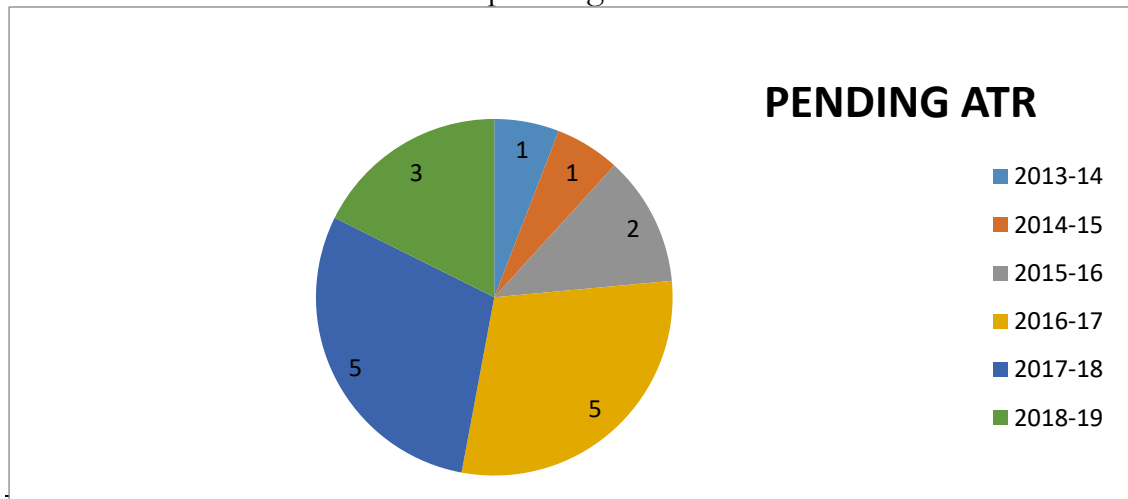


Fig.9

5.1.1 Based on their inquiry into various aspects of the accidents, the CsRS have made a total of 223 informed recommendations in their final Accident Inquiry Reports.

5.2 During the year 2018-19, nine (09) accident inquiries were entrusted to the Commissioners out of which three (03) were finalized during that year.

All these 03enquiry reports finalized by the Commissioners during the year 2018-19 were submitted to Railway Board and Railway Board was advised to communicate Action Taken Report on all these inquiry reports. Total twenty one (21) recommendations were made in these inquiry reports.

There is always some backlog 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 has been raised regularly during the coordination meetings. Ministry of Railways has mentioned that administration/implementation of the provisions connected with the Safety of train operation requires deliberation at various levels, hence the delay.

5.3 In the accident inquiry reports received during the year 2018-19, some of the important recommendations made to the Ministry of Railways are given below:-

5.3.1 Recommendations from Accident of Train no. 15027 UP Hatia-Gkp Exp between Bansipur-Kiul station of Danapur Division of East Central Railway on 14.04.2018.

- a) After rail renewal work, released rails shall be kept outside Ballast section and at the earliest released rails shall be removed from the site

5.3.2 Recommendations from Fire Accident in 12810 Up Howrah- CSMT Mail Train between Talni and Dhamangaon Railway Stations at Km. 715/13-11 in Wardha- Badnera Electrified BG double line Section of Nagpur Division of Central Railway at about 16.58 hours on 06.05.2018.

- a) The error message being displayed and recorded by the microprocessor of the locomotive should be given due importance by the Shed Administration. They should be analyzed and acted upon as done for LP's bookings in the Log Book. The LPs who are not recording such message in the Lok Book should be identified and trained.
- b) The practice of using one page of Log Book for writing the particulars by more than one LP, should be immediately stopped. In this case, four Loco Pilots used only one page to write various parameters of locomotive such as level of transformer oil, position of HOBA switch etc. These items were to be recorded by each LP which was not done.
- c) The GR oil should be changed after 10,000 km of POH as prescribed by the OEM, ELS Ajani was following this good practice.
- d) Smoke Detection and Fire Alarm system should be provided in all locomotives for timely detection of fire to safeguard the human life and railway property.

- e) The Locomotive Cabins should be air-conditioned so that the loco Pilots and Assistant Loco Pilots can keep the main doors of their loco cab closed while working the train.
- f) CCTV with recording facility should be provided in the locomotives.
- g) Necessary arrangements should be made by the railway administration to ensure turning out the Medical Van at Wardha within the prescribed time of 15/20 minutes after its ordering. The ARME should be ordered immediately on getting information of accident of passenger carrying train.
- h) All on-board staff on the trains including those of contractor should be trained for fire fighting including operation of fire extinguishers. Their knowledge should be tested periodically so that they remain updated. In this case TTEs, AC Mechanic, AC Attendants (on contract) did not participate in extinguishing the fire.

5.3.3 Recommendations from Accident of falling of pathway of RON No. 3 at south end of Andheri Railway station at Km 21/6-7 in Churchgate – Andheri BG Multiple line electrified section of Mumbai Central Division of Western Railway on 03.07.2018.

- a) Bridge organization of Mumbai Central Division should be reviewed by the Railway Administration considering the provisions in Bridge Manual. There should be a JA-Grade officer exclusively responsible for inspection & maintenance of bridges in Mumbai Central Division. Either bridge organization of Mumbai Suburban Section should be shifted under Dy.CE(Bridge)DDR or Sr.DEN(Bridge) having exclusive charge of ROB/FOB in suburban section of Mumbai Central Division should be posted. Sr.DEN (Co-ordination) of Mumbai Central Division cannot do justice and work as Dy.CE(Bridge) as prescribed in the RBM.
- b) Maintenance organization of ROB/FOB should not be utilized for new construction of ROB/FOB. Construction organization of the Railway should be utilized for new constructions. If new construction works cannot be avoided in the division, then a separate organization for construction of ROB/FOB should be created. These functions should not be mixed for the sake of proper maintenance and upkeep of the existing bridges.

- c) Inspection and maintenance of bridges including ROBs & FOBs strictly as prescribed in codes and manuals with relevant records shall be ensured to show the results of the inspection, the related measurements/ observations and details of repairs done. CBE should review the format of Bridge Inspection Register to ensure that all items as prescribed in IRBM are fully covered and the specific space to write action taken for each item is provided.
- d) Railway administration should post an exclusive Chief Engineer at SAG level in Headquarter for Mumbai Suburban System who can be responsible for railway bridges and tracks. This will provide higher level focused supervision and condition monitoring of various assets.
- e) PCE should ensure that only competent and trained officers are posted in Bridge organization. Training of staff before inducting them for bridge inspection & maintenance is most essential. The competency of those SSEs who do not belong to Bridge cadre and posted as SSE(Bridge) should be judged & certified by the CBE before they are posted as SSE(Bridge). Those who were already posted, shall be now examined by the CBE who will decide whether they were competent to work as SSE(Bridge). If they are found not suitable, they should be immediately withdrawn from the inspection & maintenance of bridges till they gain knowledge and become competent for such functions.
- f) Inspection platforms should be provided in all future ROBs as provided for water way girder bridges. Wherever space permits in Suburban section, such platforms should be provided on existing ROBs as special safety Work in phased manner.
- g) Temporary arrangement such as hanging drolley arrangement for carrying out annual inspection should be done wherever required. The feasibility of providing CCTV Camera for annual inspection can be explored for inspection of inaccessible parts of the ROBs. Modern equipment should be provided to the inspection and maintenance staff working on bridges.
- h) The Chief Bridge Engineer of Western railway should personally inspect and also check design adequacy of all cantilever bridges (having cantilever span of more than 1.5 m) Western Railway starting with cantilever bridges in Mumbai Suburban System and certify their safety. If any bridge is found

unsafe then it should be immediately repaired or else should be closed for road/ rail traffic.

- i) Unauthorized Cables and other utilities on other Bridges including ROBs/ FOBs should be identified and removed. All bridges on Western Railway should be surveyed. This recommendation was given by a SAG level committee (including CBE) in October, 2015 coming out from a similar accident in Ahmadabad Division but was not implemented. CBE should be Reputed to monitor anal implement.
- j) MCGM should obtain necessary permission/approval from the concerned Railway administration before laying any type of cables, providing tiles blocks and carrying out any repairs on the road surface. The Railway on its part should write it to all State Governments/Local bodies covering Western Railway. NCGM should immediately remove the additional dead loans wherever provided over and above designed loads, as advised by the Railway to them.
- k) There should be an agreement of each ROB & FOB with State Governments/Local bodies whose ownership is not with the Railways but they are crossing railway lines.
- l) Divisional administration of Mumbai Central Division of Western Railways must ensure timely ordering of ARME & SPART. Information of accident should be given to the Chief medical Superintendent (CMS) on top priority.

CHAPTER VI

SOME ISSUE CONCERNING SAFETY ON INDIAN RAILWAY

6.1 Safety is accorded the highest priority by Indian Railways and all possible steps are undertaken on a continual basis which includes up-gradation of technology to aid safe running of trains. A well-established safety management system is existing which identifies Safety hazards and unsafe practices in the railway operation so that corrective action can be initiated much before occurrence of a disaster. Instructions have been issued from time to time to inculcate safety habits amongst all railway employees.

The trend of accidents over Indian Railways shows a decline but the rising graph of Passenger carrying train derailment is 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 include replacement of over-aged assets, elimination of unmanned level crossings, adoption of suitable technologies for up-gradation 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 issues were highlighted to the Ministry of Railways through:

- a. Recommendations of the Commission of Railway Safety based on inquiry of serious accidents. Some important Recommendations are covered in Chapter-IV.
- 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, Electrification of existing Railways Line 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.

6.2 Safety Issues highlighted during various interactions with Railways:

Indian Railways has given huge impetus for improvement in Railway Infrastructure like substantial increase in track renewal, introduction of modern coaches, making corridor blocks mandatory besides improvement in signaling. As a result of these activities, there has been substantial reduction of 66% in reported accidents during last five year i.e. from 203 in 2013-14 to 73 in 2017-18. **This is for the first time in history of Indian Railways, number of reported accidents has reduced to two digits.**

RASHTRIYA RAIL SANRAKSHA KOSH (RRSK)

'Rashtriya Rail Sanraksha Kosh (RRSK)' has been introduced in 2017-18 for replacement/renewal/upgradation of critical safety assets, with a corpus of Rs.1 lakh crore

for five years, having annual outlay of Rs.20,000 crore. In the first year of its inception, expenditure of Rs.16091 crore was made out of the Fund for safety works. In 2018-19 also, a provision of Rs.20,000 crore was made, against which expenditure of approximately Rs.18,000 crore has been incurred.

The Funds under RRSK are utilised for safety works relating to Traffic Facilities, Rolling Stock, Level Crossings Road Over/Under Bridges, Track Renewal, Bridge Works, Signal and Telecommunication Works, other Electrical Works, TRD Works, Machinery and Plant, Workshops, Training/HRD, Passenger Amenities and Other Specified Works.

Ministry of Finance has issued 'Guidelines for Operation of Rashtriya Rail Sanraksha Kosh (RRSK)', which inter alia, includes Monitoring Framework for RRSK. It stipulates setting up of Monitoring Committee headed by CEO/NITI Aayog to examine performance. It is also laid down that the progress will be reviewed annually by Cabinet Committee on Economic Affairs headed by Hon'ble Prime Minister.

MEASURES TO IMPROVE SAFETY

- **Safety Focus** - to reduce accidents caused by human errors, a multi-pronged approach with focus on introduction of newer technologies, mechanization of maintenance, early detection of flaws, etc. to reduce human dependence in the first place, alongwith upgrading the skills of the human resources were the prime drivers for accident prevention.
- **Periodical Safety Audits** – Periodical Safety Audits of different Divisions by multi-disciplinary teams of Zonal Railways as well as Inter-Railway Safety Inspections were conducted on regular basis. During the year 2018, 83 Internal Safety Audits and 29 Inter-Railway Safety Inspections were carried out.
- **Training facilities** – Refresher training imparted to Non-Gazetted staff during 2018-19 is 1,55,337 (Provisional).

MEASURES TO AVOID COLLISIONS: -

To increase efficiency and to enhance safety in train operations, **Advanced Signaling System** with Panel Interlocking/ Route Relay interlocking / Electronic Interlocking (PI/RRI/EI) along with Multi Aspect Colour Light Signals have been progressively provided at 5886 stations covering about 94 % of the interlocked Broad Gauge stations on Indian Railways, replacing the obsolete Multi Cabin Mechanical Signaling System, that involved a large amount of human intervention. **Route Relay Interlocking (RRI)** at 20 major stations namely, Bhusawal GYC, Igatpuri, Jamalpur, Sitarampur, Amritsar, Manduadih, Kasganj, Arrakkonam, Nimpura Departure Yard, Bondamunda E Cabin, Bondamunda J Cabin, Khanudih, Mohuda, Bhawaichandi, Sonnargar, Dehri-on Sone, Tori, Panki (UP), Lalgah and Kota with **Panel Interlocking** at 96 stations and **Electronic Interlocking** at 277 stations, have been provided during the financial year 2018-19.

To avoid collisions technological aids are briefly enumerated below:-

- **Complete Track Circuiting:** - Track Circuiting on 'A', 'B', 'C', 'D Special' and 'E Special' routes, where permissible speeds are more than 75 kilometers per hour on passenger lines has been completed at about 33845 locations up to 31.03.2019. Total 6060 stations have been provided with complete track circuiting.

- **Block Proving Axle Counter (BPAC):-** To enhance safety, automatic verification of complete arrival of train at a station, Block Proving by Axle Counter (BPAC) is being provided at stations having centralized operation of points and signals. As on 31.03.2019, Block Proving by Axle Counters (BPAC) have been provided on 5363 block sections.

AUTOMATIC TRAIN PROTECTION (ATP) SYSTEM:-

Automatic Train Protection (ATP) System:In order to enhance safety in Train operations, Indian Railways has decided to provide Automatic Train Protection (ATP) System using a mix of proven European Train Control System (ETCS) level 2 and an indigenously developed Train Collision Avoidance System (TCAS). The system will be an aid to Loco Pilot, which will help to eliminate accidents due to Signal Passing at Danger (SPAD) and over speeding, ensure visibility of signals in foggy weather in addition to increasing line capacity.

- Four projects of ETCS Level 2 of limited lengths on High Density Networks, have been taken up for extensive trials before going for large scale implementation.
- **Train Collision Avoidance System (TCAS):-** Indigenous TCAS is under trials and once developed, it will be provided on low density routes. RDSO has taken up extended field trials of TCAS on a pilot section Lingampalli-Vikarabad-Wadi-Bidar pilot section (250 RKMs) on South Central Railway. Products of 3 manufacturers have been approved and safety certified for developmental orders for Absolute Block Section for speeds upto 110 KMPH.

Centralized Traffic Control (CTC) in Indian Railways:- Centralized Traffic Control is a computer based system which facilitates the control and management of multiple Signaling installations at various stations from a single location. It also provides a real time simulation of railway traffic in a section at a single location. Ghaziabad-Kanpur section of North Central Railway has been chosen for provision of first CTC of Indian Railways. All signaling assets in Ghaziabad – Kanpur section (413 KM double line section having 47 stations) can be controlled from a single location i.e. CTC Tundla, North Central Railway. This work is being done for the first time on Indian Railways having Centralized operation of points and associated signaling gears from the centralized place i.e. Tundla.

CTC System consists of Traffic Management Sub-System that controls wayside Station Interlocking and traffic flows in CTC territory. CTC enables the control of train movements directly, bypassing local operators/station masters and eliminating written train orders.

The CTC operator can directly see the train's locations on an electronic display panel and efficiently control the train's movements by operating signals and points centrally.

Train Management System (TMS):-Train Management System, commissioned on Churchgate-Virar and Chatrapati Shivaji – Kalyan and Harbour line sections of Mumbai Suburban Section in 2003 and 2013 respectively, provides live train movements in the Control Centre. Eastern Railway also has commissioned TMS at Howrah divisional control office for managing its Howrah–Bandel suburban sections. This is an efficient tool to control train movements.

Railway is planning to provide Train Management System at the suburban sections of metro cities. The work is sanctioned for provision of TMS on ECoR, suburban section

of Chennai, Southern Railway, Howrah- Kharagpur Section, SER and Sealdah Division, Eastern Railway.

MEASURES TO IMPROVE SAFETY AT MANNED LEVEL CROSSING GATES:-

- **Interlocking of Level Crossing Gates:** - Indian Railways have provided interlocking with Signals at 11375 Level Crossing Gates as on 31.03.2019, to enhance the safety at Level Crossings.
- **Sliding Boom at Level Crossing Gate:** -Provision of Interlocked Sliding Boom has become very effective in minimising disruption to train services when Level Crossing Gates get damaged by road vehicles especially in suburban areas. With provision of Sliding Boom Interlocking, Signalling System continues to function normally with minimum effect on train operation. 4293 Nos. of busy interlocked gates have been provided with Sliding Booms as on 31.03.2019 in addition to lifting barriers and further busy gates are also being progressively covered.

MEASURES TO REDUCE DERAILMENTS:-

- To improve safety, Indian Railways (IR) has been using Pre-stressed Concrete sleepers which are economical and functionally best suited for high speed and heavy density traffic. Adequate capacity has been developed for production of concrete sleepers to meet the present requirement of IR and PSC sleepers are being used for all renewals, new lines, doubling, gauge conversion, etc.
- A new design of wider sleeper has been developed and adopted. The new design is considered to be functionally better than the present design. The wider and heavier sleeper offers higher frame resistance, less stress on ballast and rail pad, improving reliability and maintainability of track.
- Upgradation of Track Structure consisting of pre-stressed Concrete (PSC) sleepers, 52 Kg/ 60 Kg high strength (90 Ultimate Tensile Strength) rails on concrete sleepers, fanshaped layout on PSC sleepers, Steel Channel Sleepers on girder bridges has been adopted on most of the routes.
- Standardization of track structure with 60 Kg Rails and PSC Sleepers: Track structure is being standardized with 60 kg rails and PSC sleepers on all the Broad Gauge routes, especially on high density routes to reduce fatigue of rails under higher axle-load traffic. New track construction and replacement of over-aged tracks is being done by PSC sleepers only.
- **Long welded rails:** For improving maintenance and better asset reliability, Railways are consistently eliminating fish plated joints on tracks by welding the joints to convert all single rails into long welded rails to the extent possible. During relaying/construction of new lines/gauge conversion also, long welded rails are laid on concrete sleepers to the extent possible. Mobile Flash Butt welding is being done on priority in construction projects. Progressively, use of flash Butt Welds is being increased and AT welding is being kept to bare minimum. Turnouts are also being improved systematically. Now, Thick Web Switches are being used to improve asset reliability and to cope with higher axle load and increased volume of traffic. Now Weldable Cast Manganese Steel Crossings have been planned to be provided on identified routes in a phased manner to

improve asset reliability and to cope with higher axle load and increased volume of traffic.

- **Flash Butt Welding :**

- Flash Butt Welding of rails on IR is carried out by using Stationary plants and Mobile machines.
- FBW is done using electrical current and enough heat is generated by using the resistance of rails. No external material is used and Welding takes place by fusion of parent rail metal.
- Approval of Quality Assurance Plan and Welding Parameters are Standardized by RDSO for both Stationary and mobile plants before execution of Work.
- FB Welding is carried out as per Indian Railways Manual for flash Butt Welding of Rails, 2012 (FBWM).

MEASURES TO IMPROVE SAFETY OF COACHES:-

- **Increasing Production of LHB Coaches**

There is large scale proliferation of technologically superior Linke Hofmann Busch (LHB) coaches, which have better riding, aesthetics and safety features as compared to conventional Integral Coaches Factory (ICF) coaches.

The Production of LHB coaches in production Units has continuously increased over the year:

1469 LHB coaches in 2016-17, 2480 LBH coaches in 2017-18 and 4429 LHB coaches in 2018-19.

The production units of Indian Railways have started producing only LHB coaches from financial year 2018-19.

MEASURES TAKEN TO PREVENT FIRE IN TRAINS:-

- **Focus on improving safety in new manufacture coaches**

Instructions have been issued for provision of the following items in coaches during manufacturing at Production Units to improve the safety features of these coaches:

- Fire detection and suppression system in all newly manufactured Power Cars and Pantry Cars.
- Fire and Smoke detection system in all newly manufactured AC coaches.
- Double Acting AC compartment doors in all newly manufactured AC coaches.
- Fire extinguishers in all newly manufactured non-AC coaches.
- Automatic plug type doors in all newly manufactured Humsafar and Uday train coaches.

MEASURES TO CURB ACCIDENTS AT UNMANNED LEVEL CROSSINGS:-

Various measures taken by Indian Railways to prevent accidents at level crossings, are as under:

(a) Level Crossing:

Level crossings are meant to facilitate the smooth running of traffic in regulated manner governed by specific rules & conditions, Status of level crossings on IR as on 01.04.2019 is as under:

Total Number of level crossings	:	22388
Number of manned level crossings	:	21340 (95%)

Number of unmanned level crossings : 1048 (5%)

Indian Railway has decided to progressively eliminate the level crossings for the safety of Road users and train passengers. During the year 2018-19, 3479 Nos. of unmanned level crossings and 631 Nos. of manned level crossings have been eliminated. All unmanned Level Crossings on Broad Gauge have been eliminated.

(b) Road Over/Under Bridges:

To improve safety of train operations and reduce inconvenience to road users, level crossings are being replaced by Road Over/Under Bridges/Subways (ROBs/RUBs) in a phased manner based on the quantum of traffic.

There are 1997 of sanctioned works of ROBs/RUBs appearing in Pink Book 2019-20 which contains 1581 ROBs and 5751 RUBs/Subways. These are at various stages of planning, estimation and execution.

During the year 2018-19, 172 ROBs and 1305 RUBs/Subways have been constructed under cost sharing, railway cost/accommodation works, Deposit/BOT term and by NHAI over Indian Railway.

OTHER MEASURES TO IMPROVE SAFETY AT TRACKS AND BRIDGES:-

(a) Bridge Inspection and Management System:

Modern Bridge Inspection techniques have been adopted, which includes testing by non-destructive testing equipments, under water inspections, monitoring the water level with the help of water level system etc.

As on 01.04.2019, Indian Railway have 150746 Bridges out of which 700 are important, 12402 are major and 137644 are minor Bridges. In the Year 2018-19, 1013 Bridges were Strengthened/Rehabilitated/Rebuild to enhance safety of train operations.

(b) Patrolling of Railway Tracks:

During adverse weather conditions patrolling of railway tracks including night patrolling is carried out at vulnerable locations regularly.

OTHER ADMINISTRATIVE MEASURES:-

- **Constant Review of Safety Performance at Board's apex level** - Safety performance is invariably reviewed as a first item on Agenda of Board Meeting at the apex level. All accidents are analyzed in detail so that remedial measures can be initiated.
- **Safety Review meeting with Zonal Railways** – Chairman and Board members have conducted Safety Review Meetings with General Managers and PHODs of zonal railways during their visits as well as through video conference.
- **Intensive Footplate Night Inspections** - Intensive Footplate Inspections including night inspections have been conducted at the level of SAG, branch officers and supervisors in the field.

- **Regular Safety Drives & awareness campaigns** – Safety drives and awareness campaigns have been launched from time to time, covering the lessons learnt from recent train accidents so as to prevent similar accidents in future.

APPENDIX-I

DETAILS OF SERIOUS RAILWAY ACCIDENTS INQUIRED INTO BY COMMISSIONERS OF RAILWAY SAFETY DURING THE YEAR 2018-19

1. Accident of Train no. 15027 UP Hatia-Gkp Exp between Bansipur-Kiul station of Danaput Division of East Central Railway on **14.04.2018**.

A) CAUSE : Miscreant activities by unknown person

B) CASUALTIES

KILLED : 01

GRIEVOUS INJURY : 01

SIMPLE INJURY : 01

C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs.10,000/=

D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 01

2. Fire Accident in 12810 Up Howrah- CSMT Mail Train between Talni and Dhamangaon Railway Stations at Km. 715/13-11 in Wardha- Badnera Electrified BG double line Section of Nagpur Division of Central Railway at about 16.58 hours on **06.05.2018**.

A) CAUSE : Failure of Railway staff.

B) CASUALTIES

KILLED : 01

GRIEVOUS INJURY : 00

SIMPLE INJURY : 01

C) COST OF DAMAGES TO : Rs. 66.86 Lakhs/-
RAILWAY PROPERTY

D) NO. OF RECOMMENDATIONS : 08
MADE BY THE
COMMISSIONER

3. Accident of falling of pathway of RON No. 3 at south end of Andheri Railway station at Km 21/6-7 in Churchgate – Andheri BG Multiple line electrified section of Mumbai Central Division of Western Railway on **03.07.2018**.

A) CAUSE : Failure of Railway staff & Others

B) CASUALTIES

KILLED : 02

GRIEVOUS INJURY : 03

SIMPLE INJURY : 00

C) COST OF DAMAGES TO RAILWAY PROPERTY : Rs. 88,54,551/-

D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 12

4. Unusual Incident of falling of passengers from Train no. 40701 Chennai Beach - Tirumalpur EMU local on Main line Platform No. 4 of St. Thomas Mount station in Kodambakkam - St. Thomas Mount BG electrified section in Chennai Division of Southern Railway at 08.25hrs on **24.07.2018**.

A) CAUSE : Due to passengers hanging/leaning outside the coach dimensions.

B) CASUALTIES

KILLED : 05

GRIEVOUS INJURY : 04

SIMPLE INJURY : 00

C) COST OF DAMAGES TO RAILWAY PROPERTY* : Rs. 294/-

D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 14

5. Derailment of Train no. 14003 UP Malda Town - New Delhi (New Farakka) Exp. at Km. 1009/7-8 in the yard of Harchandpur Railway Station of Lucknow-Rae Bareilly section of Lucknow Division of Northern Railway on **10.10.18**.

A) CAUSE : Failure of Railway Staff

B) CASUALTIES

KILLED : 07

GRIEVOUS INJURY : 04

SIMPLE INJURY : 32

C) COST OF DAMAGES TO : 7,31,50,048/-
RAILWAY PROPERTY

D) NO. OF RECOMMENDATIONS : 15
MADE BY THE
COMMISSIONER*

6. Unusual occurrence of Human Run over by train no. 74643 JUC-ASr DMU between Mananwala-Amritsar on Jalandhar city - Amritsar BG line near LC No. S-27 in Firozpur Division of Northern Railway on **19.10.2018**

A) CAUSE : Error in working by Public near railway Line

B) CASUALTIES

KILLED : 60

GRIEVOUS INJURY : 35

SIMPLE INJURY : 31

C) COST OF DAMAGES TO* : 53540/-
RAILWAY PROPERTY

D) NO. OF RECOMMENDATIONS : 4
MADE BY THE
COMMISSIONER

7. Fire accident in UP no. KD-191 (AC-1) at KM.10/11-10/10 b/w Rabindra Sadan & Maidan station on the UP line in the underground section of Metro Railway Kolkata at about 1702 hrs on **27.12.18**.

- A) CAUSE : Failure of Equipment- Rolling Stock
- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 00 |
| GRIEVOUS INJURY | : | 06 |
| SIMPLE INJURY | : | 07 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : 4,22,816/-
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER : 17

8. Derailment of Train no. 12487 (Semmeanchal Express) at Sahadai Buzurg station between Barauni- Sonpur section in Sonpur Division of East Central Railway at 0356 hrs on **03.02.19**

- A) CAUSE : Failure of Railway Equipment due to poor construction & maintenance

- B) CASUALTIES
- | | | |
|-----------------|---|----|
| KILLED | : | 06 |
| GRIEVOUS INJURY | : | 10 |
| SIMPLE INJURY | : | 20 |
- C) COST OF DAMAGES TO RAILWAY PROPERTY : 1,92,05,271/-
- D) NO. OF RECOMMENDATIONS MADE BY THE COMMISSIONER* : 11

9. Fire accident in engine of train no. 15904 UP Chandigarh-Dibrugarh b/w Chatterhat-Nijbari stations in Katihar Division of N.F.Railway on **22.03.19**

- A) CAUSE : Error in loco maintenance & others
- B) CASUALTIES

KILLED : 02

GRIEVOUS INJURY : 00

SIMPLE INJURY : 00

C) COST OF DAMAGES TO* : 6,00,62,500/-
RAILWAY PROPERTY

D) NO. OF RECOMMENDATIONS : 11
MADE BY THE
COMMISSIONER

APPENDIX-II
DETAILS OF ACTIVITIES OF THE COMMISSION OF RAILWAY SAFETY
DURING 2018-19

A- NEW LINES

SN	Date of Authorization/Inspection	Section/Line Opened	Railway	KMs
1.	20.04.18	Amb Andaura-	NR	15.425
2.	30.07.18	Naihati Link Cabin-	ER	2.926
3.	25.07.18	Biraul-Harnagar	ECR	8.6
4.	16.07.18	Mahrajganj-Masrakh	NER	35.754
5.	01.08.18	Korukkupet –	SR	3.968
6.	19.08.18	KRSL-SKTN	ECR	3.696
7.	15.09.18	Nagansur and Boroti	C.Rly	8.98
8.	09.11.18	Neral/Belapur-	C.Rly	11.718
9.	25.10.18	Telelia-Kamalajari	NFR	10.153
10.	25.10.18	Dhamlgaon to Tangani	NFR	18.114
11.	30.10.18	Bhainsapalli-Balangir	EcoR	14.58
12.	22.11.18	Nichitpur-Katrasgarh	ECRly	3.286
13.	03.12.18	Santirbazar –Belonia	NFR	9.975
14.	25.01.19	Takkolam-Arakkonam	SR	9.44
15.	17.01.19	Kelod-Itwari	SER	48.18
16.	08.03.19	Narayandoh and	CR	23.265
17.	20.02.19	Annigeri-Binkadakatti	SWR	17.959
18.	27.02.19	Jumnal-Minchinal	SWR	29.635
19.	28.02.19	Chikkabenakal to	SWR	12.41
20.	27.03.19	Jhalwar City and	WCR	7.12
21.	30.03.19	Alamganj to Bilasipara	NFR	26.146
22.	21.03.19	Kuruppantara-	SR	5.98
23.	02.04.19	Tumkur-Gubbi	SWR	17.66
24.	02.03.19	Nandyal Jn. & Nandyal	SCR	2.324
25.	11.03.19	Talapur &	SCR	5.337
26.	30.03.19	Bhanupratapur-Keoti	SECR	8.20
27.	03.04.19	Patan-Bhildi	WR	50.98
28.	20.12.18	Motisadli-Alirajpur	WR	26.24
			Total	475.36

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

S N	Date of Authorization/Inspe	Section/Line Opened	Railwa y	KMs
1.	23.04.18	Akalkot Road to	CR	5.12
2.	03.05.18	Hijli to	SER	19.128
3.	16.04.18	Haripur-Guriya	NWR	9.52
4.	16.04.18	Mangaliyawas-	NWR	23.25
5.	17.05.18	Nandurbar -	WR	34.27
6.	22.06.2018	Nishatpura &	WR	2.12
7.	09.06.18	Suriawan to Janghai	NR	15.160
8.	21.06.18	Jhansi-Paricha	NCR	24.08
9.	22.06.2018	Nishatpura-Bhopal	WCR	2.12
10.	18.07.18	Gadadharpur-Saithia	ER	7.12
11.	29.07.18	Manigram-Jangipur	ER	14.608
12.	26.07.18	Kawar-	ECR	24.22
13.	26.07.18	Sewapuri to Parsipur	NR	13.48
14.	11.07.18	Rajkharswan-	SER	16.521
15.	28.07.18	Manoharpur-	SER	12.173
16.	24.08.18	Khaderpet &	SCR	23.63
17.	05.10.18	Kardi and Arsikere	SWR	36.352
18.	21/24.09.18	Block Hut A-	NER	6.78
19.	26.09.2018	Limbagon and	SCR	15.786
20.	26.09.2018	Mugat & Mudkhed	SCR	10.332
21.	02.08.18	Rairakhhol –Bamur	EcoR	16.65
22.	03.08.18	Kottavalasa –	EcoR	8.93
23.	21.08.18	Karjoda-Palanpur	NWR	2.58
24.	21.08.18	Karjoda-Palanpur	WR	3.35
25.	26.09.18	Limbgaon and	SCR	15.786
26.	26.09.18	Mugat & Mudkhed	SCR	10.332
27.	26.10.18	Chikjajur Jn-	SWR	36.956
28.	3.10.18	ARAND-	EcoR	32.763
29.	31.10.18	Silakjhor –	EcoR	9.224
30.	23.10.18	MSG-PUN	WR	2.28
31.	31.10.18	Viramgam-	WR	23.45
32.	26.11.18	Son Nagar-Dehri-	ECRly	5.76
33.	23.11.18	Varanasi City- Varanasi Cantt.	NER	2.286
34.	26.11.18	Koppal Station and Hosanete Station	SWR	27.732

35.	30.11.18	CKP-ROU Section	SER	17.374
36.	29.11.18	Kapilas Road Jn.- Salegaon Bhadrak-	EcoR	4.296
37.	30.11.18	Chakradharpur-	SER	12.978
38.	21.12.18	Baran to Salpura	WR	41.9
39.	17.12.18	Lailakh Mamalkha- Bhagalpur	ER	14.167
40.	10.12.18	Parsipur-Bhadohi	NR	8.47
41.	11.12.18	Chingavanam and	SR	9.945
42.	21.12.18	Balangir-Deogaon	EcoR	17.354
43.	24.12.18	Champa-	SER	8.073
44.	30.11.18	Jharli – Manheru	NWR	28.03
45.	25.01.19	Varanasi Jn-	NER	3.40
46.	07.01.19	Salkaroad- Khongsara and	SECR	11.50
47.	22.01.19	Rajkharswan West- Chakradharpur	SER	17.60
48.	04.01.19	Bhinwalia-Rani	NWR	28.70
49.	14.01.19	Surendranagar-	WR	7.04
50.	04.02.19	Alwar-Dhigawara	NWR	29.53
51.	07.02.19	Bhadi and Bhusaval	CR	12.62
52.	25.02.19	Salar- Tenya	E.Rly	13.289
53.	04.02.19	Hojai to Habaipur	NFR	19.87
54.	08.02.19	Dungripali &	EcoR	12.773
55.	13.02.19	Tabuend to Maluka	SER	11.102
56.	01.02.19	Alwar-Dhigawara	NWR	29.53
57.	28.03.19	Turki Road and	WCR	12.003
58.	19.03.19	Tenya-Salar	ER	15
59.	23.03.19	Jogeshpur Bihar- Karmahat	ECR	10.59
60.	26.03.19	Kahalgaoon-Lailakh Mamalkha	ER	16.203
61.	03.04.19	Lalbagh Court- Azimgani In.	ER	8.035
62.	22.03.19	Cabin 'C' to	NR	1.862
63.	31.03.19	New Maynaguri to	NFR	10.713
64.	17.03.19	Makalidurga –	SWR	36.122
65.	04.04.19	Wandai-Mulvad	SWR	26.77
66.	16.03.19	Tenali and Guntur	SCR	25.47
67.	18.03.19	Medchal and	SCR	13.882
68.	25.03.19	Guntakal and	SCR	10.851
69.	28.03.19	Moturu and	SCR	40.334
70.	07.03.19	Ambagaon and	EcoR	10.019

71.	07.03.19	Basantapur and	EcoR	12.332
72.	07.03.19	Kulasekra to	SC	8.17
73.	11.03.19	Basulya Sutahata to	SER	5.248
74.	30.03.19	Brajrajnagar to	SECR	9.218
75.	30.03.19	Brakrajnagar and	SECR	18.436
76.	24.12.18	Champa-Saragaon	SECR	16.146
77.	20.03.19	Chittaurgarh- Shambhunura	WR	13.34
			Total	1285.89

C- GAUGE CONVERSION:-

SN	Date of Authorization/	Section/Line Opened	Railway	KMs
1.	18.06.18	Gonda-Bahraich	NER	60.34
2.	24.07.18	Raxual-Narkatiaganj	ECR	40.63
3.	21/24.09.18	Block Hut A-Daliganj	NER	6.78
4.	29.10.18	Ringas-Palsana	NWR	23.1
5.	30.11.18	Daliganj-Sitapur	NER	81.806
6.	02.03.19	Banmanankhi-Barharakothi	ECR	15.835
7.	25.02.19	Mandhana-Brahmavart	NER	7.585
8.	04.02.19	Maval-Jethi	NWR	27.2
9.	05.03.19	Asarva-Rakhiyal	WR	41.86
10.	23.03.19	Sakri – Mandan Mishra	E.C.Rly	10.84
11.	20.03.19	Sitapur – Lakhimpur	NER	45.634
12.	02.04.19	Thiruvarur – Tiruturaipundi	SR	25.774
13.	02.04.19	Tiruturaipundi – Pattukottai	SR	49.183
14.	18.03.19	Bhimalgondi – Kelod	SECR	45.231
15.	30.03.19	Bhanupratappur – Kelod	SECR	8.2
16.	17.01.19	Kelod-Itwari	SECR	48.18
17.	04.04.19	Rakhiyal-Himmatnagar	NWR	46.33
			Total	597.23

D- DIVERSIONS:-

SN	Date of Authorization/Inspection	Section/Line Opened	Railway	KMs
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1.	18.05.18	Bhupdeopur-Robertson	SER	2.805
2.	09.06.18	Chudanga Garh-Barang	ECoR	2.943
3.	Under issue	Abu Raod-Maval	NWR	2.264
			Total	8.012

E- ELECTRIFICATION OF RAILWAY LINES:-

SN	Date of Authorization/Inspection	Section/Line Opened	Railway	KMs
1.	04.06.18	Shankargarh-Manikpur	NCR	53.12
2.	18.06.18	Sarnath-Varanasi	NER	7.69
3.	29.07.18	Katwa-Azimganj	ER	73.216
4.	25.07.18	Warsaliganj-Kiul	ECR	49.325
5.	30.08.18	Jabalpur and Katni section	WCR	90.91
6.	24.08.18	Mathura-Achnera	NCR	35.97
7.	09.08.18	Siripuram- Tummalacheruvu	SCR	60.72
8.	10.09.18	Gondia - Samnapur	SECR	67.00
9.	30.11.18	Hissar - Sirsa	NWR	82.5
10.	19.09.18	Kaptanganj-Valmiki Nagar	NER	62.24
11.	21/24.09.18	Block Hut A-Daliganj	NER	6.78
12.	30.09.18	Lohardaga-Todi	SER	41.69
13.	30.09.18	Pakur-Malda Town	ER	70.72
14.	15.10.18	Katihar-Kumedpur	NF	57.07
15.	22.10.18	Panval to Pen	CR	36.599
16.	25.10.18	Khetasarai to Tanda Section	NR	71.854
17.	28.10.2018	Sambalpur Road - Bamur	ECoR	35.512
18.	29.10.2018	Sambalpur City - Sarala	ECoR	48.151
19.	09.11.18	Rewari to Rohtak	NR	73
20.	26.11.2018	Harpalpur-Khairar	NCR	162
21.	29.11.18	Kalluru -Guntakal	SCR	37.772
22.	30.06.19	Sirsa-Bhatinda	WR	89

23.	08.12.18	Sagauli-Raxaul	ECR	30.213
24.	09.12.18	Fathua - Islampur	ECR	43.358
25.	10.12.18	Koderma - Khurhjadoda	ECR	40.461
26.	31.12.18	Janghai-Gauriganj	NR	99.13
27.	13.12.18	Chhapra -Ballia	NER	77.59
28.	22.12.18	Pagidipalli - Nalgonda	SCR	74.3
29.	08.03.19	Kosli - Manheru	WR	94.207
30.	31.12.18	Salem-Karur	SR	83.27
31.	08.01.19	Pen to Roha	CR	38.86
32.	28.01.19	Daniyawan - Bihar Shariff	ECR	36.88
33.	30.01.19	Kurhagada - Hazaribagh Town	ECR	44.24
34.	12.01.19	Delhi Sarai Rohilla- Rawari Section	NR	78.00
35.	12.01.19	Narwana-Kurukshetra Section	NR	83.72
36.	24.01.19	Hardatpur-Allahabad	NER	113.60
37.	24.01.19	Hardatpur-Varanasi	NER	9.03
38.	23.01.19	Sholaka-Rundhi	NCR	11.38
39.	25.01.19	Takkolam-Arakkonam via Melaakkam	SR	9.44
40.	15.01.19	Shilkara-Nainpur	SECR	56.49
41.	10.01.19	Kakiriguma-Sikarpai	ECoR	90.78
42.	30.01.19	Det-Udaipur	NWR	96.00
43.	28.01.19	Berach-Udaipur	NWR	96.86
44.	28.02.19	Gajraula to Muazzampur Narain	NR	93.95
45.	03.12.18	Guntakal and Haddiganodu	SCR	45.1
46.	12.02.19	Dungripali - Khaliapali	ECoR	12.773
47.	12.02.19	Khariar Road - Turekela	ECoR	52.785
48.	08.02.19	Lakkaarapukota and Shivapukurukota	ECoR	9.609
49.	30.06.19	Ratlam - fatchabad	WR	90.36

50.	30.06.19	Chandlodiya-Goraghuma	WR	11.85
51.	12.03.19	Daund -Baramati	CR	44
52.	20.03.19	Chalisingaon - Dhule	CR	56.47
53.	15.03.19	Vijaypur - Pachor Road	WCR	39.386
54.	25.03.19	Guna Jn and Shivpuri	WCR	48.834
55.	27.03.19	New Katni Jn- Beohari	WCR	107.29
56.	20.03.19	Satna to Manikpur	WCR	71
57.	13.03.19	Azimganj - Manigram	ER	20.192
58.	19.03.19	Tenya-Salar-Gangatikuri	ER	19.97
59.	20.03.19	Kiul - Bhagalpur	ER	98.474
60.	28.03.19	Hazaribagh town- Berkhanga	ECR	51.992
61.	29.03.19	Bettiah -Valmikuinagr	ECR	93.221
62.	30.03.19	Kathkurian-Jalalpur	NER	40.64
63.	22.03.19	Ludhana to Dhuri Section	NR	59.4
64.	22.03.19	Jind to Panipat	NR	70.16
65.	08.04.19	Rohtak to Panipat	NR	63.66
66.	08.04.19	Rajpura to Patiala	NR	23.1
67.	08.04.19	Gauriganj to Sirrajnagar	NR	83.827
68.	08.04.19	Ara to Sasaram	ECR	95.59
69.	31.03.19	Chitrakut to Khairar	NCR	79.817
70.	20.03.19	Kaptangang-Kathkuiyan	NER	39.117
71.	11.03.19	Mukuria -Gunjaria	NFR	82.002
72.	30.03.19	Bonidanga Link Cabin to Tinnai and Bongaigaon	ER	25.99
73.	21.03.19	Kuruppantara - Ettimaneer	SR	5.98
74.	25.03.19	Villupuram - Cuddalore Port	SR	47.228
75.	25.03.19	Tiruchchirappalli Jn - Thanjavur	SR	47.23
76.	30.03.19	Ballari-Toranagallu	SWR	34.62
77.	02.03.19	Nandyal Jn. And Nandyal Jn Cabin	SCR	2.324

78.	07.03.19	Tummalacheruvu and Vichayapuram	SCR	29.6
79.	11.03.19	Talapur and Ramachandrapuram	SCR	5.337
80.	26.03.19	Peddaalli and Gangadhara	SCR	55.7
81.	27.03.19	Nalgonda and Kukkadam	SCR	28
82.	28.03.19	Bellary- Toranagalli	SWR	34.62
83.	29.03.19	Raiwala- Rishikesh	NR	12
84.	30.03.19	Najibabad - Kotdwar	NR	24
85.	30.03.19	Chandausi - Moradabad	NR	40.2
86.	31.03.19	Amritsar - Chhina	NR	49.265
87.	05.03.19	Jarpada - Rairakhol	ECOR	62
88.	18.03.19	Nainpur and Chiraidonari	SECR	18.75
89.	18.03.19	Itwari and kelod	SECR	48.02
90.	30.03.19	Khariar Road - Lakholi	ECOR	74.326
91.	31.03.19	Koderma - Mahespur	ECR	20.94
92.	05.03.19	Bhatinda -Hanumangarh	WR	92
93.	20.03.19	Chittaurgarh - Chanderiya	WR	12.24
94.	25.03.19	Phulera - Madar	WR	68.859
95.	26.03.19	Haripur –Bhinwaliya	WR	67.99
96.	26.03.19	Maval -Palanpr	NWR	39.08
97.	26.03.19	Palanpur Yard	WR	5.6
98.	27.03.19	Hanumangarh -Suratgarh	NWR	51.04
99.	01.04.19	Ratlam-Jaora	WR	32.97
			Total	5276

METRO PROJECTS:-**F – Delhi Metro Rail Corporation Ltd. (DMRCL)** -

SN	Date of Authorization	Section	Metro Railway	KMs
1.	15.05.2018	Janakpuri West to Kalkaji Mandir	DMRC	24.820
2.	-	Munkda to City Park	DMRC	11.183
3.	26.07.2018	Durgabai Deshmukh South Campus to Lajpat Nagar	DMRC	8.534
4.	24.10.2018	Trilokpuri Sanjay Leke to Shive Vihar	DMRC	17.864
5.	17.11.2018	Escort Mujesar to Raja Nahar Singh	DMRC	3.350
6.	17.12.2018	Noida Section 51 to Depot Station of Nokha	DMRC	29.168
7.	27.12.2018	Lajpat Nagar-Mayur Vihar Pkt- 1	DMRC	9.63
8.	06.02.2019	Dilsad Garden to Bus Adda	DMRC	9.635
9.	05.03.2019	Noida City Centre to Noida Electronic City	DMRC	6.799
			Total	120.983

G –Hyderabad Metro Rail Limited(HMRL)-

SN	Date of Authorization	Section	Metro Railway	KMs
1.	10.09.2018	Ameerpet and LB Nagar	HMRL	17.015
2.	25.02.19	Ameerpet & Hitec City	HMRL	8.645
			Total	25.66

H- Chennai Metro Rail Limited(CMRL)-

SN	Date of Authorization	Section	Metro Railway	KMs
1.	22.05.2018	Shenoy Nagar to Chennai Central & Nehru Park to	CMRL	5.622
2.	23.05.2018	Little Mount to AG-DMS	CMRL	4.348
3.	28.01.2019	Washermanpet-AGDMS	CMRL	9.97
			Total	19.94

I- Lucknow Metro rail Corporation(LMRC)-

SN	Date of Authorization	Section	Metro Railway	KMs
1.	25.02.19	Airport to Transport Nagar & Charbagh to Munsipulia	LMRC	15.1

J- Nagpur Metro Rail Project (NMRP)

SN	Date of Authorization	Section	Metro Railway	KMs
1.	16.04.2018	Airport South and Khapri Section	Nagpur Metro	5.05
2.	05.03.2019	Khapri to Sitabuldi	Nagpur Metro	12.938
			Total	17.988

K- Kochi Metro rail Corporation(KMRC)- NIL

L – Jaipur Metro Rail Corporation Ltd. (JMRCL) - NIL

M – Mumbai Metro Rail Corporation Ltd.(MMRCL) - NIL