

ABSTRACTS OF RAILWAY ACCIDENT INQUIRY REPORTS



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COMMISSION OF RAILWAY SAFETY
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FOREWORD

This publication contains the extracts of inquiry reports of railway accidents conducted by Commissioners of Railway Safety and action taken by Railways. Though every care has been taken to ensure accuracy in preparing the document, the Commission disclaims liability for any inconvenience, expense or loss/damage caused by the use of the information given in this periodical.

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ABBREVIATIONS

ACP : Alarm Chain Pulling

ACTM : Alternating Current Traction Manual
ARME : Accident Relief Medical Equipment

ART : Accident Relief Train

BD : Break Down
BG : Broad Gauge

CCRS : Chief Commissioner of Railway Safety

CE / PCE : Chief Engineer / Principal Chief Engineer

CRS : Commissioner of Railway Safety

CRPF : Central Reserve Police Force

CSO : Chief Safety Officer

DN : Down

DEN/Sr.DEN : Divisional Engineer/ Senior Divisional Engineer

DME/Sr.DME : Divisional Mechanical Engineer/

Senior Divisional Mechanical Engineer

DSTE / Sr.DSTE : Divisional Signalling & Telecommunication Engineer/

Senior Divisional Signalling & Telecommunication Engineer

DRM : Divisional Railway Manager

EMU : Electric Multiple Unit

GR : General Rules

GRP : Government Railway Police G&SR : General & Subsidiary Rules

IBH : Intermediate Block Hut

IBS : Intermediate Block Signalling

ICF : Integral Coach Factory

IRPWM : Indian Railway Permanent Way Manual

KRCL : Konkan Railway Corporation Limited

MG : Metre Gauge

MRV : Medical Relief Van

NFR : Northeast Frontier Railway

PCP : Portable Control Phone

POH : Periodic Overhauling

PWD : Public Works Department

P.Way : Permanent Way

RAC : Reservation Against Cancellation

RCF : Rail Coach Factory

RDSO : Research Design & Standards Organisation

RPF : Railway Protection Force

SM/ASM : Station Master / Asst. Station Master

SPL : Special

SS/SMR : Station Superintendent / Station Manager

SWR : Station Working Rules

THOD : Territorial Head of the Deptt.

TP : Telegraph Post

TSR : Train Signal Register

TXR : Train Examiner

UIC : International Union of Railways (French)

VHF : Very High Frequency

ZTC : Zonal Training Centre :

PROCEDURE

STATUTORY INQUIRIES INTO RAILWAY ACCIDENTS RULES, SCOPE AND PROCEDURE

1. RULES

1.1 Rules for Inquiry into Railway accidents:-

Rules for the guidance of the Officers of the Commission of Railway Safety for holding inquiries into Railway accidents are contained in the "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 dt. 2.1.99.

1.2 When should a Statutory Inquiry be held? :-

A statutory inquiry by the Commissioner 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 in the train or with serious damage to railway property of the value exceeding Rs. 25 lakhs. The Commissioners may also inquire into any other accident which in the opinion of the Chief Commissioner or the Commissioner of Railway Safety requires the holding of an inquiry. Where the Chief Commissioner of Railway Safety considers the holding of an Inquiry into an accident necessary, he may either hold the inquiry himself or direct the Commissioner of Railway Safety to do so.

The Inquiry shall be obligatory only in those cases where the passengers killed or grievously hurt were travelling in the train. If a person travelling on the foot-board or roof of a passenger train is killed or grievously hurt or if a person is run over at a level crossing or elsewhere on the railway track, an inquiry is not obligatory. Workmen's trains or ballast trains carrying workmen shall also be treated as passenger trains and in the event of a workman getting killed or grievously hurt as a result of an accident to the train, an inquiry shall be obligatory.

PROCEDURE

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

When a Commissioner is unable to hold an inquiry, he is to inform the Chief Commissioner of Railway Safety of the reasons as to why an inquiry can not be held by him. The Chief Commissioner may himself hold the Inquiry or may direct another Commissioner to inquire into the accident or else the inquiry can be entrusted to the Railway itself, who will then appoint a Committee of Railway Officers to inquire into the accident. The Committee's inquiry report is submitted to the Commissioner of Railway Safety who scrutinises it and in case he agrees with the findings, forwards it to the Chief Commissioner of Railway Safety along with his views on the findings and recommendations made. If, on the other hand, the Commissioner of Railway Safety considers that an inquiry should be held by himself, he proceeds to do so.

1.4 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 Commissioner shall discontinue his inquiry.

2. SCOPE

The Commissioner holds inquiries into accidents with a view to ascertaining the causes. 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 transshipment, completion of their journey to destination, running of duplicate trains etc. As a result of his inquiry, the Commissioner may also make recommendations which are designed to prevent the recurrence of similar accidents, and which may suggest laying down new rules or modifying existing rules of working, and improved standards of signalling, installation and maintenance of track, bridges, 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. PROCEDURE FOR CONDUCTING A STATUTORY INQUIRY

As soon as the Commissioner of Railway Safety receives intimation about the occurrence of a serious accident, he proceeds to the site, conducts inspection of the

PROCEDURE

accident site and records all particulars relevant to the accident. He then fixes a date for the inquiry, which is given publicity in the media. Officers of the local Magistracy and police are separately advised of the dates of the inquiry. The public is invited to give evidence in the inquiry in person or to write to the Commissioner.

4. POWERS OF COMMISSIONER IN RELATION TO INQUIRIES.

As per the Section 116 of the Railways Act, 1989, Commissioners are deemed to be Civil Court.

Section 116 read as under -

Section 116 (1)- For the purpose of conducting an inquiry under this Chapter into the causes of any accident on a railway, the Commissioner shall, in addition to the powers specified In Sec. 7, have the powers as are. vested in a civil court while trying a suit under the Code of Civil Procedure, 1908 (5 of 1908), in respect of the following matters, namely

- (a) summoning and enforcing the attendance of persons and examining them on oath;
- (b) requiring the discovery and production of documents;
- (c) receiving evidence on affidavits;
- (d) requisitioning any public record or copies thereof from any court or office;
- (e) any other matter which may be prescribed.
- (2) The Commissioner while conducting an inquiry under this Chapter shall be deemed to be a Civil Court for the purposes of Sec. 195 and Chapter XXVI of the Code of Criminal Procedure, 1973 (2 of 1974).

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ABSTRACTS OF RAILWAY ACCIDENT INQUIRY REPORTS

ACCIDENT- (i)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE UNUSUAL OCCURRENCE OF FIRE TO THE PANTOGRAPH OF COACH OF L-13 DN LONAVALA-PUNE LOCAL TRAIN BETWEEN VADGAON AND TALEGAON STATIONS OF PUNE DIVISION OF CENTRAL RAILWAY ON 25.08.2005.

I. PREAMBLE

Gate no. 50 between VDN and TGN, the Gateman on duty, Shri Sanjay Dutta noticed the smoke and fire, below the pantograph of motor coach no. 70724 in the train and showed the red flag to the Guard. The Guard of L-13 DN exchanged one ACP beat with the Motorman and informed on PA system to stop the train, since there was smoke and fire near the pantograph on the motor coach. The Motorman applied emegency brakes and stopped the train at kms. 156/1 and tried to drop the pantographs on run. The pantographs on which fire was there, had one spring broken and did not come down.

The feeder at TGN tripped due to fault current in OHE at 14.32 hrs fbut the feeder at the other end at Kmshet (KMST) did not trip and continued to supply the power to the OHE, for some time. The JE at TGN Sub-station telephoned TPC regarding the fire in the pantograph, who in turn instructed JE/KMST to shut off the power. Accordingly, the KMST Feeder triped at about 14.33 hrs. The Feeder circuit breakers are said to trip, for load exceeding the limit of 3500 amps. After the stoppage of the train, the fire was extinguished by train crew. The commuters traveling in the coach no. 70274 startedd jumping out of the train, seeing the smoke entering the coach. In the process of jumping out, few commuters suffered injuries.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to fire in Coach No. 70274 of L-13 Dn. suburban local train at kms 156/1 between Vadgaon and Telegaon stations in the Lonavala-Pune suburban section of Pune division of Central Railway at 14.30 hrs no 25.08.2005 was due to external conducting material shorting of the pantogaraph and ventilation wire mesh on HT compartment on the roof.
- 2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.0 The remarks and recommendations made by CRS and action taken by Railways

ACCIDENT- (i)

are given below -

- 3.1 (a) Recommendation: The wire mesh and its frame should be immediately painted with suitable anti-track paint, so that there are no chances of shouting of live pantograph with any ojther portion of roof. Accordingly, complete roof should be properly insulated electrically.
 - (b) Action by Railways:- RDSO and Railway are making all out efforts to minimize the fire incidences on the roof of EMU motor coaches by insulating the metallic components on the foof. The progress made by Central Railway so far with reference to Chief Commissiner of Railway Safety observations is as under.
 - (i) Till date wire mesh and it's frame in all the 344 coaches have been painted with Anti track varnish red/grey.
 - (ii) FRP 'L' angle being provided under the MR cowl to avoid any foreign metallic object coming in contact with the pantograph and wire mesh and till date 224 coaches out of 275 coaches have been provided with 'L' angle.
 - (iii) Other fire prevention measures are being inplemented. STANVAC chemical was tried on four motor coaches but it was not successful since the insulation resistance deteriorated to less than 0.2 Mega Ohms within 5-6 months. Rotoguard compound has also been applied on 13 motor chaches on trial and performance is under observation.
 - (iv) RDSO has been requested by Central Railway vide their letter No. L.531.P.54 dated 22.03.2007 to look for the compound which can withstand high temperature and whose insulation resistance does not deteriorate with temperature and time.
- 3.2 (a) Recommendation: Inter sub-station tripping devices, as recommended earlier vide recommendation no. 9.6 of detailed Inquiry Report of fire of N-16 UP train on Kasara Kalyan section on 29.04.2004, should be provided in DC traction area in Central Railway at the earliest.
 - (b) Action by Railways: As informed by CEE/CR vide their letter No. L/574/TRD/Safety dated 06.07.2007 that the latest position of commissioning of 155 Nos. microprocessor based ralays-Tender for supply and erection of 139 Nos. microprocessor based DC fault detection system relay is at the advanced stage of finalization by Tender Committee.
- 3.3 (a) Recommendation:-Protective screens may be provided on all overline structures such as ROB, FOB etc. in Pune and Mumbai Division

ACCIDENT- (i)

immediately.

(b) Action by Railways: - As per GM/CR's comments in para 3.4(b) insturctions had been reiterated vide CAO (Construction's letter No. EW/ 223/G.114/Accident/III dated 26.12.2005 and W.640.P.FOB/Misc. dated 30.12.2005).

On Pune-Lonavala (Electrified section) of Pune Division protective screens have been provided on all over structures such as foot over bridge etc. On Mumbai division Safety Protective screen has provided in Kalyan-Lonavala and Kalyan-Igatpuri section.

- 3.4 (a) Recommendation: Implementation of measures for fire prevention as per 'Code of Practice for Prevention of fires on EMU Stock 2003' to be carried out on a war footing.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation: The frequency of providing insulating paint coating over the wire mesh on the vent of the HT Compartment may be suitably increased. It could be once in 6 months or even earlier depending upon the climatic conditions, during schedules in-between the two POHs. Further, possibility may also be explored whether metallic wire mesh may be replaced by one of a suitable non-conducting material. RDSO may be directed to work on it.
 - (b) Action by Railways: Central Reailway advised that insulating paint coating over the wire mesh on the vent of HT compartment will be provided during 9 monthly lifting in sheds. RDSO is requested to look for the nonconducting material which can be provided instead of wire mesh.
- 3.6 (a) Recommendation: Insturctions may also be issued to ensure that Construction Organization, while constructing overline structures (ROBs, FOBs), take adequate precautions under responsible supervision to ensure that no material is allowed to fall on the OHE and track below, either willfully or inadvertently.
 - (b) Action by Railways: Construction organization has issued instructions to their field units to ensure that while constructing over line structures such as FOBs etc. adequate precautions under responsible supervision should be made to ensure that no material is allowed to fall on the OHE and track below.

ACCIDENT- (ii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DERAILMENT OF LT-17 DOWN CSTM-TITWALA EMU LOCAL TRAIN AT KM.16/3-4 BETWEEN KURLA AND VIDYAVIHAR STATIONS OF KURLA-KALYAN BROAD GAUGE DC ELECTRIFIED QUADRUPLE LINE SECTION OF MUMBAI DIVISION ON CENTRAL RAILWAY AT 11.23 HOURS ON 23.12.2007.

I. PREAMBLE

at 10.45 hrs, arriving CLA at 11.15 hrs on Platform no.1. Signal No. S-36 & S-73 were taken 'OFF' with 'A' Marker for departure of LT-17 local train. Meanwhile, signal S-36 and S-73 had gone to 'Red' Aspect due to indication of point no. 168 flashing in Normal position with locking indication on illumination panel. Chief Assistant Station Master informed the same to On duty, JE/1-Signal/CLA, Shri Bane Singh, in SI duty room, on telephone. Cabin in-Charge then instructed the Panel Operator to cancel the route of S-36 & S-73 by three button cancellation. After 2 minutes timer, Point no. 168 indication became steady and the route was cancelled by Panel Operators. Meanwhile, Point indication of Point no. 168 became steady automatically and Panel operators had cleared the Signals no. S-36 & S-73 with 'A' Marker for LT-17, at 11.21 hrs. The train left CLA at 11.21 hrs. after passing signal S-73 derailed with five coaches and the remaining four coaches took another route over Point No. 168.

It is stated that though point indication of point no. 168 after flashing became automatically steady, however, it is to note that the above feature was recorded in signal failure register by CASM. He informed the concern SI and Dy. SS on duty at 11.15 hrs.

Based on provisions in SR 3.68-1 of Central Railway G&SR it was the duty of cabin ASM to physically verify the position of the signalling gears at the site along SI before permitting any further movement on the above point, both of them failed to follow the above provisions and considering that the point have become automatically steady cleared the signal for train no. LT-17 at 11.21 hrs.

It is further added that construction staff was working with JCB machine in close proximity of the point without adequate supervision, barridicating and prior permission. It is always possible that breakage of mechanical fuse of the point machine may have been due to the hit by the JCB machine working in clear proximity.

ACCIDENT- (ii)

II CAUSE OF THE ACCIDENT

- **2.1** Commissiner of Railway Safety concluded that accident occurred due to malfunctioning of point machine.
- 2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by CRS and action taken by Railways are given below -
- 3.1 (a) Recommendation: Construction organization should observe adequate precautions as per board's letter No. 2003/10/RCIL/1/PT.IX dated 04.05.2007, while working near the running lines so as not the damage the cables/OFC along the track.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.2** (a) Recommendation :- CE/C should ensure adequate barricading while working near running lines.
 - (b) Action by Railways: Adequate instructions have been issued by the Ministry of Railways from time to time for ensuring safety at work sites. A copy of letter No. 2003/CE-II/PRA/20(CRS) dated 20.10.2004, No. 2000/W-II/Misc./O/03 dated 04.04.2006 and No. 2003/CE-II/Safety Misc. 3 18.02.2010 in this regard is issued.
- **3.3** (a) Recommendation: S&T Deptt. Should ensure that data loggers are available at all PI stations in working order.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (iii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON DASHING OF TRACTOR TROLLEY WITH 318 DN. DARBHANGA-KATIHAR PASSENGER TRAIN AT CONSTRUCTION/WORK SITE AT KM 133/11-12 BETWEEN SAHEBPUR KAMAL AND UMESH NAGAR RAILWAY STATIONS ON BARAUNI-KATIHAR, BROAD GAUGE, SINGLE LINE, NON-ELECTRIFIED SECTION OF SONPUR DIVISION OF EAST CENTRAL RAILWAY AT 09.50 HRS ON 08.06.2008.

I. PREAMBLE

1.1 THE ACCIDENT: - 318 Dn Darbhanga-Katihar passenger, an air braked train, hauled by WDM-3A locomotive No. 16520, short hood leading, having 09 coaches commenced its journey from Barauni Jn. station at 07.30 hrs (05 minutes late) on 08.06.2008. It had an uneventful run up to Sahebpur Kamal station, the last stopping station prior to accident site. While the train was on its run in block section Sahebpur Kamal-Umesh Nagar, at a speed of about 78 kmph, a tractor trolley infringed the movement and some passengers, sitting on the doors of the coaches of the train were injured. Loco pilot and assistant loco pilot of the train did not notice the infringement and injuries to train passengers. The train stopped at the next station Umesh Nagar, for scheduled stoppage and again left for further travel. Fact of injuries to passengers came to the notice of Railway officers when some passenger informed Station Master at Khagaria after train's arrival at that station.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to infringement by the tractor trolley caused by negligent driving by the Driver of the tractor trolley.
- **2.1.1** Cause as established by the Commissiner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by CRS and action taken by Railways are given below -
- 3.1 (a) Recommendation:-Action should be taken to improve general safety awareness and consciousness among the railway officials including the train operation staff. For this regular drives should be launched by East

ACCIDENT- (iii)

Central Railway Administration.

- (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation: Intensive checks and monitoring of all the loco pilots, assistant loco pilots and guard of the trains in East Central Railway should be undertaken for their alertness. For this regular drives should be launched by East Central Railway Administration.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation:-At all construction/work sites where road vehicles or machinery can come close to the railway track, the railway track should be protected by providing suitable, properly designed semi-permanent fencing alongside the track for which the approved plans and instructions should be issued by East Central Railway Administration.
 - (b) Action by Railways: Necessary instructions have been issued to all zonal Railways to provide sturdy semi-permanent barbed wire fencing with MS angle posts, embedded in concrete to forewarn the road vehicle driver, working in the vicinity of the railway track vide Board's letter No. 2012/CE-II/CRS/4 dated 26.11.2012.

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THE ABSTRACT OF SHRI R. P. AGARWAL, THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, SOUTH CENTRAL CIRCLE ON THE INCIDENT OF FIRE IN TRAIN NO 2738 DN. GOUTAMI EXPRESS AT KM 425/24 BETWEEN KESAMUDRAM - TADLAPUSAPALLI STATIONS ON KZJ-BZA BG ELECTRIFIED DOUBLE LINE SECTION, GROUP 'A' ROUTE OF SC DIVISION, SOUTH CENTRAL RAILWAY AT 01.10 HRS ON 01-08-2008.

I. PREAMBLE

1.1 THE ACCIDENT:- 2738 SC-COA Dn. Goutami Express train hauled by WAP4/LGD Electric locomotive No. 22745 with Cab-2 leading and having 24 coaches including SLR commenced its journey from SC at 21.15 hrs on 31.7.08. The primary maintenance of the rake was carried out at Kakinada on 30th July, 2008. Round trip BPC no. 180891/COA valid upto SC and back to COA dated 30.07.2008 was issued, 100% BPC was insured by C&W staff at COA. All doors were in working condition. At SC platform turn-round attention was given to the rake before start of the train by ensuring air continuity and brake power. The same was endorsed on the BPC. The train arrived at WL at 00.15 hrs and left at 00.17 hrs; passed through CLE & YGL at 00.27hrs and 0.33 hrs respectively. It arrived at NKD station at 00.42 hrs against schedule time as 00.09 hrs, stopped for one minute there and left at 00.43 hrs with 33 minutes late running. It passed through INK station at 00.52 hrs.

The patrol men in the section between NKD-INK exchanged all right signals duly whistling. The ASM and the Pointsman at NKD station exchanged all right signals when the trains started. The train passed through KDM station at 00.58 hrs against the schedule time as 0.21 hrs on 1.8.08 at a speed of 75 Kmph due to speed restriction of 75 Kmph from 422/30 - 425/24 due to need of machine packing, while aspect of IBS was proceed (Green). The crew members exchanged all right signals with KDM station master & Pointsman and also with the gatemen of level crossing gates before the accident spot at Km. 425/12-16. The weather was cloudy and the visibility was clear and very slightly drizzling. While passing IB inner distant, BP dropped suddenly with ACP indication with buzzer sound in the loco. The driver and the assistant driver controlled the train by applying formation brake at Km. 425/15 at 01:00:28 hrs and it travelled for 306mts (5 nos. OHE masts) before it came to a halt at Km 425/23 at 01:00:56 hrs. The driver sent his Assistant to check the formation who observed thick black smoke along with fire from middle of the formation and the above incident took place.

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II CAUSE OF THE ACCIDENT

- 2.1 The Commissiner of Railway Safety concluded that accident occurred due presence of inflammable material in S-10 coach.
- 2.2 Cause established by the commision of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by Commissiner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation: The Door and the handle design for the coaches requires three operations of opening of top and bottom latches and operating the door handle and so becomes cumbersome to open the door in case of emergency. It should be modified and made simpler for opening the doors from inside the coach. In addition, the material of the handle and the latches should be modified having thermal insulating properties so that it is possible to grab the handle even when the coach is afire. The clearance between door and door frames should be increased to avoid the possibility of the doors getting jammed due to heating, with suitable flexible lining provided to fill up the gap.

Fire barriers should be provided in between alternate passenger bays and between coaches to contain/regulate the rate at spread of fire, so that passengers get more time to detrain.

(b) Action by Railways :-

- (i) Poor & Handle Design Instructions have been issued to PUs and Zonal Railwasy to have the internal safety latches (with pad and locking arrangement) only at top of doors. Railways have also been instructed to remove the bottom latches/catches of the doors in existing coaches.
- (ii) RDSO has developed a STR No. RDSO/2009/CG-20 for fire retardant coating and mastic ceiling compound, which when applied over the door handle/catches will impart thermal insulation.

Fine Barriers:

To optimize the location and properties of fire barriers in passenger bays, studies using the simulation software are under progress at RDSO. The scope also covers the study of fire from one coach to another by using fire proof material in Toilet and doorway area.

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- 3.2 (a) Recommendation: Fire extinguishers and On-board Fire Detection-cum-Alarm System with fire alarm to passengers and indication to loco pilot cab should be provided in all types of coaches for all passenger carrying trains including passenger, mail and express trains. It is essential to provide alarm to the crew as soon as possible in order to stop the train on time, so that the passengers can disembark before the fire gets severe. Fire extinguishers on board coaches shall also help to contain the fire till such a time the train stops. Utilization of existing water in the water tanks on the coaches to suppress the fire in the gangway area may also be explored.
 - (b) Action by Railways: As per extant insturcions, all Guard cum Brake Vans and AC coaches are provided with portable fire extinguishers to cater for emergencies due to fire accidents.

A pilot project for provision of comprehension fire and smoke detection system has been taken up in one rake of New Delhi-Bubhaneswar Rajdhani. Field trials are under way on this rake since Nov. 09 and the system is reported to be working satisfactory. Extensive field trails on a representation population of coaches are to be planned to be conducted further.

3.3 (a) Recommendation: Fire protective accessories should be provided for the crew as part of emergency tool kit to help them in performing the uncoupling of coaches as well as rescue work in case of fire. Similar set of accessories should also be provided in MRV/ARTs so that the railway staff involved in rescue/relief work can carry out the work safely.

Suitable pumps and hoses may be provided in MRV/ARTs for extinguishing the fire in case of emergency with water available in nearby water sources. This will allow the fire control exercise to begin early in cases of locations not accessible by road.

(b) Action by Railways Fire Protective accessories: There is neither any space in the Loco Cab hor in the Loco Pilots box to carry fire protective accessories. Fire extinguishers already exist.

Provision of Pumps and hoses in MRV/ARTS

ART staff is not trained in firefighting, the way fire brigade is tained. Average time taken by an ART to reach an accident site is far beyod one hour. Any fire fighting equipment in ART/ARMV would be useless by that time. ART/ARMVs mandate to rescue and to provide relief. Local firefighting capabilities exist in the form of extinguishers.

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- **3.4** (a) Recommendation: Water mist arrangement for extinguishing fire should be provided on all the passenger coaches.
 - (b) Action by Railways: Trials have been conducted with water mist arrangement for extinguishing fire in AC coaches. For Non-AC coaches suitable nozzles are not available and trails have not been found effective.

"Trails with warter mist arrangement in AC coaches were carried out. However, same were inconclusive. RDSO has been asked to pursue further with the trials of water mist arrangement for AC coaches. There would be technical difficulty in use of water mist arrangement in Non-AC coaches due to unregulated ventilation. However, RDSO has been asked to develop suitable fire supperssion system for Non-AC coaches as well.

- 3.5 (a) Recommendation: Information about the location of emergency exit windows and its operation should be provided through Public Address System, Display Boards at the station, tickets and other media. The onboard train staff also may be suitably trained and asked to open the emergency windows in case of accident.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) Recommendation: At present the material used in the coaches is decided based on their individual fire-retardant, toxicity etc. It is desirable that a comprehensive fire load study, based on all the components of the coach as a whole, for all type of coaches should be carried out and the material specification used for the coaches finalized on the basis of the study of total fire load of the coach similar to practices as adopted by UIC.
 - (b) Action by Railways: Acrtion is underway at RDSO to ascertain/obtion the data for heat release rate for individual coach furnishing materials, in order to calculate the fire loade of the coaches.
- 3.7 (a) Recommendation:-The CCTV should be provided with proper backup for regular retrieval of data. The data for CCTV must be stored for a minimum period of 72 hrs
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the commission.

ACCIDENT- (v)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DASHING OF TRACTOR TROLLEY WITH TRAIN NO. 4005 UP AT SIKANDARPUR STATION OF TUNDLA-GHAZIABAD SECTION AT KMS. 1375/3-5 ON BG ELECTRIFIED SECTION OF ALLAHABAD DIVISION OF NORTH CENTRAL RAILWAY AT ABOUT 08.56 HRS ON 31.08.2008.

I. PREAMBLE

1.1 THE ACCIDENT: The work of provision of third line between GZB and ALJN is in progress. Formation work between GZB and KRJ is in advanced stage. Bank height is on an average of 1m. Near km.1375/3-5, some house of Samaspur village, coming in the alignment of third line, are yet to be acquired. Hence, the formation width in this location was narrow i.e. 8.37 m from UP line track centre.

In the morning at 08.50 hrs, a Hydra machine, belonging to the Contractor, was travelling from NDLS to ALJN side. The Hydra Operator saw a tractor coming from the opposite direction. Since the gap between the Hydra and the adjacent track was very less, he slowed down the Hydra and shouted at the tractor driver to operate. But the tractor driver, Shri Taufiq did not stop, thinking that by one wheel on the new bank and one on the ballast, he would be able to pass. When he was crossing through the gap between Hydra and track, OHE mast No.1375/3-5 appeared in the front. To save that, the driver turned the front wheels towards the right, away from the track.

The tractor portion escaped that gap, but when trolley was to travel near the Hydra gap, the 4005 Up Lichchavi express was passing through the stop at about 100 kmph. When the tractor driver suddenly turned to right, to avoid OHE mast, the rear trolley skidded radically towards the track, the front corner infringed the track and scratched through the coaches. In some coaches, the passengers were sitting on the footboard with their legs out.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to negligence of driver of the tractor Trolley, passenger travelling, sitting on the footboard, inadequate protection at site of work and inadequate involvement of Open Line Officers to ensure safety at the site.
- 2.2 Cause established by the CRS was accepted by the government.

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III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by Commissiner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: Synchronization of Various Activities: MD/RVNL should attempt to synchronize various activities such as shifting of cables, land acquisition, installation of OHE masts, ballasting on the completed formation so that long stretches of empty new formation re not created for plying of road vehicles, since maintaining safety precautions in long lengths is difficult.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.2** (a) Recommendation: Assistance by Police authorities: The GM/NCR/ALD should assist maximum involvement of Police authorities at the present site to ensure safety of passengers in running trains.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.3 (a) Recommendation:-

- (i) The Railway Administration should ensure that safety related instructions are implemented at site and issue necessary guidelines for field officials to perform efficiently, especially, with regard to safety of running track.
- (ii) The PMC is requested to ensure that all safety related instructions are fully complied with, at the site.
- (iii) The contractor should ensure to honour all these commitments after the accident and ensure that no further accident takes place at this site.
- (iv) The Railway Administration should provide stickers and posters at platforms and in the coaches, guiding the passengers not to travel by sitting on the footboard and the Railway staff should be guided to prevent passengers travelling on the footboard as much as possible.
- (v) The Railway Administration/RPF should take strict action to control law and order and prevent unsocial behaviour of local people in this area.
- (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

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- 3.4 (a) Recommendation: The train accident of 16.06.2008 was not reported by Headquarters to Railway Board. The GM/NCR/ALD is requested to fix responsibility or this irresponsible working.
 - (b) Action by Railways: Necessary instructions in the matter have been issued to North Central Railway vide Board's letter Nos. 2008/Safety (A&R)/ 1/16 dated 29.09.2010. Extant instructions in the matter have also been reiterated to all the zonal Railways for ensuring their compliance vide Board's letter Nos. 2008/Safety (A&R)/1-16 dated 29.09.2010.
- 3.5 (a) Recommendation: In such accidents (actual or averted), a provision should be made in the agreement for some financial penalty on the contractor as well as PMC, in case they are found lacking in ensuring compliance of safety related instructions.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON DASHING OF TRACTOR WITH 223 UP SAKARI JN-LAUKAHA BAZAR PASSENGER TRAIN BETWEEN JHANJHARPUR AND MAHRAIL RAILWAY STATIONS ON JHANJHAPUR-LAUKAHA BAZAR, MG, SINGLE LINE, NON-ELECTRIFIED SECTION OF SAMASTIPUR DIVISION OF EAST CENTRAL RAILWAY ON 21.07.2009 AT 10.34 HRS.

I. PREAMBLE

of 10 coaches worked by Diesel Locomotive no. 6551 YDM4 left Jhanjharpur Bazar Halt at 10.28 hrs after its schedule stoppage. During its journey to Mahrail, the train dashed against a Private Tractor no. BR/8CA/1946, which was standing near the track at km 06/5-6 in the village Kanhauli for unloading of bricks, at 10.34 hrs. As a result, hand rail of the locomotive was damaged and body of the locomotive as well as all the coaches of the train, were scratched. There were bicycles hanging from window bars of coaches. Some of these flew away due to hitting.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to carelessness on the part of Tractor Driver and negligence of Train engine crew.
- 2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 Remarks & Recommandations made by Commissiner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: The railway line near the site of accident passes through a village having houses near to the track on both sides and therefore movement of cattle, road vehicles etc. across the track on the face of approaching trains could be a common occurrence.
 - As a safeguard measure, adequate barricading along both side of the track to a suitable length is emphasized.
 - **(b)** Action by Railways:- The position has been explained by the Railway Administration to the satisfaction of the Commission.

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- 3.2 (a) Recommendation: Hanging of bicycles from window bars outside the coaches was noted to be a very common phenomenon in the section. This unsafe practice has to be curbed through periodical raids and regular monitoring. At present, there is hardly any check in this regard.
 - (b) Action by Railways: The matter was got examined through CSC/RPF/East Central Railway. Necessary instructions have been given by East Central Railway to all Railway Divisions for launching drives against hanging of bicycles from window bars outside the coaches. Regular checking to prevent such practice is being done at RPF Post level. In this regard CSC/RPF/ECR's letter No. S/CCB/HQ/HJP/Safety/10 dated 24.02.2011 and Addl. CSC/RPF/E.C. Railway's No. S/CCB/HQ/HJP/SOR/SPJ-16/12 dated 25.10.2012 addressed to Railway Board.
- 3.3 (a) Recommendation: Safety inspection, both at the level of Sr. Supervisors and officers was found to be inadequate and perfunctory resulting in laid back situation. It was felt that the MG section was not getting due attention. DRM and Sr. Divisional as well as HQ officers must apportion sufficient time and efforts towards safe running in MG section. A suitable system in this regard needs to be urgently placed in position.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) Recommendation: Wherever there is dense habitation across the railway track, Warning Boards should be suitably provided with the instruction to drivers to be in sharp look out and ensure continuous whistling.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (vii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE COLLISION BY TRAIN AD 439 EMU LOCAL WITH THE REAR END OF STATIONARY TRAIN BVI 437 EMU LOCAL AT KM. 12/15-16 ON PLATFORM NO.1 OF MAHIM STATION OF CHURCHGATE-BORIVALI BG SEVEN LINES ELECTRIFIED SUBURBAN SECTION OF MUMBAI CENTRAL DIVISION OF WESTERN RAILWAY AT 13.09 HOURS OF 09.08.2009.

I. PREAMBLE

1.1 THE ACCIDENT: - AD439 Dn EMU local (hereinafter also referred as 'AD439' or 'AD439DN'or as the colliding train) left Matunga Road station at 13.06 hours (2 minutes behind schedule time). It entered Mahim platform No.1 and collided with rear end of EMU local BVI437 Dn. (hereinafter also referred to as 'BVI437' or 'BVI 437 Dn' or as 'the collided train'), which was standing there.

Leading face, having driving cab, of first coach of AD439 was deformed and there were damages to equipments and fittings.

Rear end, with motorman/guard's cab, of last coach of BVI437 suffered heavy damages. Buffers and cowcatchers were pushed inside. Welding of cross beams of end panel with sole bars gave way. Vender compartment was damaged. Chequered aluminum sheets detached from floor and were piled up over one another.

Guard of BVI437 had noticed fast approaching AD439. Anticipating the collision, he jumped out onto the platform and warned passengers traveling in vender's portion about the danger.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred because Motorman of train no. AD439 Dn. passing automatic signal No. A-386 in red without stopping at this signal.
- 2.2 Cause as established by the CRS was acepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.0 Remarks & Recommandations made by Commissiner of Railway Safety & action taken by Railways are given below -

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- 3.1 (a) Recommendation: Instruction on AWS should be modified to include that whenever AWS is found to be out of working order, the defect should be immediately reported to EMU controller.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.2** (a) Recommendation: Train examination staff should be counseled that all systems, including AWS should be checked fully during rake examination.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation: Instruction regarding switching off CUG phone by motorman during train working should be strictly enforced.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.4** (a) Recommendation: Railway should take action to reduce cases of duty changes by motorman.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.5** (a) Recommendation: Railway should ensure that Railway officials, traveling in driving/guard's cab of a train, keep their mobile phones switched off during such travel.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (viii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DERAILMENT OF K-37DOWN SUBURBAN LOCAL TRAIN DUE TO COLLAPSE OF 40 M CONCRETE GIRDER OF UNDER CONSTRUCTION ROB OF THANE MUNICIPAL CORPORATION BETWEEN MULUND AND THANE STATIONS OF MUMBAI CST - KALYAN SECTION OF MUMBAI DIVISION OF CENTRAL RAILWAY AT 10.45 HOURS ON 23.10.2009.

I. PREAMBLE

1.1 THE ACCIDENT: On 23.10.2009, K-37 Dn local train left Mumbai CST at 09.52 hrs, when the train was running between Mulund and Thane stations prestressed concrete girder, of under construction Kopri Road Over bridge fell down. Since the train was moving at a speed of 45 kmph, it was unable to stop. It dragged the girder a few metres. A water pipe line, bridge was also hit and it was also crashed down. The accident resulted in collapsing of Motorman's cabin, derailment of one coach, damage of about 50 m length of track and damage to 800 m length of overhead equipment.

II CAUSE OF THE ACCIDENT

- 2.1 The Commissiner of Railway Safety concluded that accident occurred due to failure of wooden blocks supporting PSC girders of under construction ROB for prolonged duration, which was under vibrations because of heavy traffic density in suburban section.
- 2.2 Cause as established by the CRS was acepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by CRS and action taken by Railways are given below -
- 3.1 (a) Recommendation: The ROB execution over the track was involving traffic block for safety reasons. Arranging traffic blocks means obstruction to traffic, hence, at planning stage detailed discussion should be held with the Operating Department. An MOU should be signed between the Construction Agency and the Operating Department regarding programme of the arrangement of traffic block.

In addition, costing of traffic block should be done. The cost should form

ACCIDENT- (viii)

- part of the contract document while evaluating the bids financially. The system should encourage Contractors to propose and use the scheme of ROB construction requiring minimum traffic block.
- (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- 3.2 (a) Recommendation:- The method of launching schemes of PSC girders in developed countries including China should be studied. It is learnt that in China a method of Span Rotation is being used for launching of PSC girders in which no traffic block is required. A team of Senior Railway Officers should visit such sites and propose appropriate methodology for Indian conditions to do the work safety and expeditiously
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- 3.3 (a) Recommendation: In future designs, suitable steel box sections and neoprene rubber pads should be sued instead of wooden blocks for supporting the girders during intermediate stage of launching of PSC girders.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- **3.4** (a) Recommendation: The condition of wooden blocks, the levels of bottom of girders etc. should be daily monitored by instrumentation and stationary watchman.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- 3.5 (a) Recommendation: The Railway Administration may consider this suggestion and supervision of deposit works should be allocated to Construction Engineers under CAO rather than Divisional Engineers of Open Line Organization.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.

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- **3.6** (a) Recommendation: Co-ordination Meetings of Senior Officers of various agencies periodically should be programmed to sort out various issues.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- 3.7 (a) Recommendation: In spite of so many unhappy critical event and technical problems, CBE and Sr.DEN not visiting the site is unfortunate. The officers may be guided suitably for exhibiting such dereliction of duties.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- 3.8 (a) Recommendation: Stressing of cables to be done in proper sequence.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- **3.9 (a) Recommendation :-** G.R.P. and R.P.F. should cordon off the area near the accident site and control the crowd so as not to allow unrelated people occupying the space near the accident site, obstructing the rescue and restoration.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- **3.10 (a)** Recommendation :- Railway Board may consider including these precautions in the guidelines issued vide their letter No. 97/CE-I/BRO/ 158(Policy) Pt.II dated 16.07.2009.
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.
- **3.11 (a)** Recommendation: Railway Board may consider supervising of works over Railway Track by Railway Engineers only in ROB cases
 - (b) Action by Railways: The position has been explained by the Railway Administration and action has been taken by the Ministry of Railways to the satisfaction of the Commission.

ACCIDENT- (ix)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DERAILMENT OF 6210 UP MYSORE-AJMER EXPRESS AT KMS.57/4 AT JEJURI STATION ON SINGLE LINE OF PUNE-MIRAJ SECTION OF PUNE DIVISION OF CENTRAL RAILWAY AT 18.34 HRS ON 11.11.2009.

I. PREAMBLE

1.1 THE ACCIDENT: The 6210 Up Mysore-Ajmer Express was running in Miraj-Pune section. It was being hauled by a WDM3 Diesel Engine. The Advance Starter and Starter signals were lowered after closing the LC No. 18 & 19. While crossing Jejuri Yard, the train derailed at km.57/4 on SEJ.

The locomotive and the front 10 coaches remained on the track. the 11,th 12th and 13th coaches capsized. Between the 13th and 14th bogies, there was a gap of about 120 meters from S-6, S-7, S-8, S-9 and S-11. 1 GS derailed and was tilted. There was no rail available below the coach but the last SLR was on the track.

It was observed that left side tongue rail of SEJ was freshly broken, which resulted into the above derailment.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to sudden fracture in the left side tongue rail of SEJ.
- 2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.1 CRS has not given any Recommendation on this accident.

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE UNUSUAL INCIDENT OF TRACTOR/JCB HITTING TRAIN NO.237 MYSORE-BANGALORE PASSENGER BETWEEN CHANNAPATNA AND RAMANAGARAM STATIONS OF BG NON-ELECTRIFIED SINGLE LINE SECTION IN BANGALORE DIVISION OF SOUTH WESTERN RAILWAY ON 04.12.2009 AT 17.00 HRS.

I. PREAMBLE

1.1 THE ACCIDENT: The section between Chennapatna - Ramanagaram is a non-electrified single line BG section, where doubling of line was in progress on the left side of the existing track in the direction of the movement of the train. While the train no.237 Mysore - Bangalore passenger was on run in the above section, something, most probably a JCB working for doubling work, infringed the trains movement and hit passengers, sitting at the door and keeping their legs on foot steps. The machine, which had hit the coaches, had grazed through the entire train formation intermittently. Loco was not having any grazing marks.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to unknown Machinery/Vehicle, probably JCB hit the passengers sitting at door with their legs resting on foot steps.
- 2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 Remarks & Recommandations made by Commissiner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: There is an immediate need about the reaction of Officers and Staff of Railway to take appropriate action after an accident of such type as in this case, as appropriate action was not taken to preserve the Clues by immediately trying to locate the Machinery/Vehicle which had hit the train. Only after the knowledge of grievous injuries to passengers the officers and staff took the incident seriously, by that time the Machinery/Vehicle which had hit the train was moved away by the contractor from the site and could not be located even till date. Railways have to sufficiently train all concerned so that all concerned take appropriate action immediately after such unusual accident, particularly Guard, SMs, Loco Crew etc.

ACCIDENT- (x)

- **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation:-Immediately, Railways shall take action to carry out the works of doubling which is going to affect the safety of running trains on the existing track by appropriately protecting the running track as per extant rules to prevent Construction Machinery coming in the way of running trains on existing track, this aspect has not been ensured neither by Construction nor by Open Line Engineers in this case. It is found that neither the Open Line nor the Construction Department is having adequate manpower to protect the track as prescribed in GR 15.08 and 15.09 for carrying out the works which affects the running of trains on existing line track including mid section like this incident. Railways shall ensure adequate man power required without fail. Without adequate protection as prescribed in GR, no work shall be carried out.
 - (b) Action by Railways: Detailed instructions about presence of Railway Supervisors are already incorporated in Para 826 of IRPWM duly modified vide ACS No. 95 dated 30.06.2004. Further, a copy of D.O. letter No. 2003/CE-II/Safety/Misc.3 dated 18.02.2010 in the matter is also issued.
- 3.3 **Recommendation:** Though large number of instructions are there, right (a) from local circulars to Railway Board's Circulars regarding providing proper barricade while executing works of new line adjacent to the existing running line. Between Km. 52 to 48 near the accident spot, at many stretches there was no barricade, and at some stretches only vertical posts were seen. Immediately at all the work sites, Railways shall arrange appropriate barricading without which no work shall be carried out. If there is a necessity to remove the barricades to carry out works causing infringement to moving dimensions to existing running line at such location, the track shall be protected as per GR 15.08 &15.09 without fail, for which Railway shall ensure adequate manpower including Supervisory Staff & other staff to field Engineers without fail positively, to protect the existing track, otherwise field Engineers shall not carry out any works which causes infringement to Moving Dimensions.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) Recommendation: Due to paucity of Supervisory Staff, Construction Works close to running Track is going without adequate Supervision as in this case the Supervisor of the Work was away for the day to another site. The sketch at annexure I shows the details of availability of barricading separating site of activity of doubling work and existing line Running Track.

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As stated earlier, Doubling Works are in progress between CPT-RMGM. Further, rail barricading that has been provided earlier at this location had also been removed for about 100m length indicating rail barricading has been removed at the location of incident, to facilitate unloading of sleepers on ballast slopes of existing track, very close to the running track. The JE/P.Way/CN/HQ/BNC stated in his deposition that he did not protect the track on 04.12.2009, he did not have manpower to protect the track as per rules. Besides this he has been drafted by Railway Officials to supervise other works situated in different locations other than this doubling project between Channapatna – Ramanagaram, therefore he was not able to remain at one place of work. There are no Records available at site like Daily Progress of work etc. for execution of doubling works between Channapatna – Ramanagaram.

From the above, if could be concluded that virtually no Safety precautions are being taken while executing the Doubling Works between Chennapatna — Ramanagaram due to paucity of manpower both at supervisory level & staff level for arranging protection of work site as per extant rules. It is, therefore, strongly recommended that Railways at least shall have adequate arrangements of supervisory and other staff to execute works close to live running track without fail.

This not only affects safety but also the quality of work executed by Railways. If quality suffers in the long run not only Safety of running trains is going to be under jeopardy, but also maintenance efforts, both Track and Bridges and also rolling stock. Due to such works Railway will not only be not able to operate Trains at Designed speed due to lack of quality in works, but also may have to replace assets before the normal life of assets, prematurely due to faster deterioration. On an overall basis Railways by saving small amount on staff, Railways are going to inherit badly executed Projects, with perennial problems, which is going to cost dearly to Railways (life cycle cost) besides affecting Safety of Running Trains.

(b) Action by Railways :- JPO No. W.247/Safety at work site 31462 date 22.03.2011 has been issued by PCE/S.W. Railway

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE ACCIDENT OF 2620 UP MATSYAGANDHA EXPRESS DUE TO FALL OF BOULDERS FROM RIGHT SIDE OF AMDALLI CUTTING BETWEEN HARWADA AND KARWAR STATIONS OF MADGAON - THOKUR SINGLE LINE SECTION ON KARWAR REGION OF KNONKAN RAILWAY ON 08.11.2010.

I. PREAMBLE

1.1 THE ACCIDENT: On 08.11.2010 at 19.30 hrs, 2620 UP Matsyagandha Express met with an accident due to fall of boulders (maximum size 1.5 m x 1 m x 0.5 m) from right side, while passing through Amdalli cutting at km.508/6-7, between Harwada and Karwar stations of Madgaon - Thokur section on Karwar Region of Konkan Railway.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to sudden fall of boulders from right side of cutting breaking High Strength boulder net (HSBN) provided on cutting, while 2620 Up was passing through cutting.
- 2.2 Cause as established by CRS was accepted by the government.

- 3.0 The Remarks & Recommandations made by Commissiner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: The work of flattening of cutting slopes in Amdalli cutting has been held up from 14.03.2009. In period of one year, two incidences of boulder fall / slush slip had occurred. Speed restrictions of 30 kmph should be imposed and round the clock cutting watchman should be posted till above work is completed and cutting is certified safe for running of trains at maximum permissible speed.
 - (b) Action by Railways: The position has been explained by the Konkam Railway Corporation Ltd. Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation:-As per Para 1006 of Indian Railways Bridge Manual, stagings mounted on the mobile units, such as open wagon or rail motor shall be used to carry out thorough inspection of the sides and roof of the

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- **3.2** (a) Recommendation: Railway must ensure that there are no infringements to any of the dimensions as per Indian Railways, Schedule of Dimensions, Revised, 2004 for any of the overhead fixed structures like FOBs, ROBs etc. For this a special drive should be launched by Railway administration for removal/regularization of the infringements.
 - **(b)** Action by Railways :- The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.3 (a)** Recommendation: Railway Administration should issue a standard Performa for Steel Structure Register and Bridge Inspection Register to be maintained for the inspection of ROB/FOBs which should also include the item of measurements to be taken for clearances.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xiii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, DASHING OF DUMPER TRUCK NO. HR - 39A 3395 (LOADED WITH BALLAST) WITH TRAIN NO. 54791 DN, MATHURA JN - BHIWANI PASSENGER AT KM 32/1-2 BETWEEN KOSLI AND JHARLI STATIONS ON REWARI - BHIWANI SINGLE LINE NON ELECTRIFIED BG SECTION OF BIKANER DIVISION OF NORTH WESTERN RAILWAY AT 21.30 HRS ON 29.04.2011.

I. PREAMBLE

train hauled by WDG3A class Diesel Locomotive No. 14731 with 10 coaches left Kosli station at 21.25 hours. At Km 32/1-2 rear portion of a dumper truck (No. HR-39A 3395) loaded with ballast hit and grazed against left side of the loco and all ten coaches of the train. When the train stopped, locomotive was about 294 m after and last coach was about 55 meters after the location of Dumper Loco Pilot and Guard of the train rendered assistance to passengers. Train left accident site at 21.50 hrs. After halting at Jharli at 22.05/22.07 hrs, the train reached Charkhi Dadri station at 22.24 hrs.

When Railway officials from Bikaner Division reached the site of accident, dumper loaded with ballast was available at accident site and it was infringing the Railway track. Infringement was cleared at 01.00 hrs with the help of JCB arranged from adjoining Thermal Power Plant/Sudhrana.

II CAUSE OF THE ACCIDENT

- 2.1 Commissioner of Railway Safety concluded that accident occurred due to infringement to movement of the train by dumper, loaded with ballast, brought to site for the work of supply of ballast in connection with Sudhrana Crossing station.
- 2.2 The cause as established by Commissioner of Railway Safety was accepted by the government.

- 3.0 Remarks and Recommendations made by Commissioner of Railway Sefety and action taken by Railways are given below -
- 3.1 (a) Recommendation:-Act of AOM/Bikaner advising Section Controller not

ACCIDENT- (xiii)

- to order ARME/RE, even though it was known to him that passenger train is involved in the accident and passengers are injured is considered improper. He should be counseled.
- (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation: MS/RE reached CKD after 3 hrs of accident and Sr.DMO/Hisar reached PGI/Rohtak after 4 hrs of accident, even though it was possible to reach early. Railway should take corrective action.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation: Construction work was in progress adjacent to track but construction officials had not issued even 'observed Engineering Hand Signal and Whistle freely (OEHS & WF) Caution Order. Railway should take corrective action.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.4** (a) Recommendation: Accident involved rake was sent for further journey from CKD to Bhiwani without 'Fit to run' certificate. This is unsafe practice. Railway should take corrective action.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation: Whenever passenger train is involved in accident, on getting first information, ARME should be ordered and moved immediately.
 - (b) Action by Railways: Instructions to zonal Railways regarding immediate movement of ARME already exist. However, these instructions have been reiterated by the Ministry of Railways to zonal Railways for strict compliance vide letter No. 2004/M(L)/466/7101 dated 04.10.2012.
- 3.6 (a) Recommendation: On work site, where plying of road vehicle may endanger safety of running trains, entry of road vehicles should be restricted, round the clock watchmen should be deputed at site and adequate lighting at site should be ensured during night.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) Recommendation: No work adjacent to track should be allowed unless physical barricading strong enough to prevent road vehicles coming closer to track are erected at site and approved in writing by Railway's Engineer.

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- Present instructions of providing barricading of Red tap/Nylon rope are inadequate to prevent accident at work site.
- (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.8 (a) Recommendation: In all contract agreements where work is required to be done adjacent to railway track, public road or habitated area, separate item of 'fabricating and erecting physical barricading' should be kept in tender schedule. This item should be first to be paid to Contractor, payment against other items should not be released unless required barricading is erected at site and paid/included in bill for making payment.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xv)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, DERAILMENT OF TRAIN ENGINE AND FRONT POWER CAR OF 12301 UP HOWRAH-NEW DELHI RAJDHANI EXPRESS OVER POINT NO. 51B AT KM 99/15-17 OF GANGPUR STATION OVER HOWRAH DIVISION OF EASTERN RAILWAY AT 18.09 HRS. ON 15.06.2011

I. PREAMBLE

of 21LHB coaches worked by electric Loco no. 30285 WAP7 left Howrah station at 16.55 hrs on 15.6.2011. The train passed Shaktigarh station (the station before Gangpur) at 17.50 hrs, where ASM/SKG informed the Loco pilot over VHF that his train would be received on calling on signal at Gangpur as Home Signal of Gangpur had failed. The train stopped at Gangpur Home Signal, which was red, at 17.52 hrs and the loco pilot was served with T-369 (3b) memo by porter for Gangpur Home Signal at 18.07. On showing of green Hand Signal by porter, the train started and while passing over point no. 51B at a speed of about 6 kmph, Loco pilot felt a sudden jerk. He immediately applied brake and the train stopped at 18.11 hrs. Loco Pilot noted that all 6 wheels of front trolley of the loco were on rail whereas all 6 wheels of the rear trolley had derailed and 4 wheels of the front bogie of the power car (1st from Train engine) had also derailed. Rear bogie wheels of power car remained on track.

II CAUSE OF THE ACCIDENT

- 2.1 Commissioner of Railway Safety concluded that the accident occurred due to Point no. 51B not being set properly and inspite of knowing about the failure of this point, its proper setting was not ensured by attempting manual cranking, clamping and padlocking and the driver of the train was served the authority T369-3(b) memo to move past the Home Signal at 'ON' position and was also given proceed Hand Signal from the foot of the Signal post.
- 2.2 Cause as established by Commissiner of Railway Safety was accepted by the government.

- 3.0 Remarks & Recommandations made by Commissiner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: Extant rules for train operation need to be followed

ACCIDENT- (xv)

meticulously to ensure safety in train operation. Effective counseling and close monitoring of working of train passing staff is emphasized. Procedures required to be followed for train operation in case of "Failure of Points" should be specifically drilled into the mind of each and every ASM/SM of the divisions through counseling and demonstration at the earliest. Assurances may also be obtained from each of them in this regard specifically.

- (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation: On busy sections, such as quadruple line sections where onduty Station Master has to deal with large number of trains, railway should earnestly consider to provide at least two Station Masters in each shift to avoid any scope for short cut working.
 - (b) Action by Railways: Necessary instructions have been issued by the Ministry of Railways to fill up vacancies in SMs cadre on priority vide letter No. 2011/TT-IV/12/11 dated 24.09.2012
- 3.3 (a) Recommendation: The instant accident took place due to direct failure of front line operating staff. The higher echelon of railway administration must deliberate deeply and come up with ways and means so that such failures are not repeated.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xvi)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DERAILMENT OF 15640 DN GUWAHATI - PURI EXP BETWEEN STATIONS RANGIYA AND GHOGHRAPAR (GOE) ON GUWAHATI (GHY) - NEW BONGAIGAON BROAD GAUGE SINGLE LINE NON-ELECTRIFIED SECTION OF RANGIYA DIVISION, NORTHEAST FRONTIER RAILWAY AT ABOUT 20:10 HOURS OF 10TH JULY, 2011.

I. PREAMBLE

1.1 THE ACCIDENT: On 10-07-2011, 15640 Dn Guwahati - Puri Express left Rangiya at 20:04 hours. It met with the accident at 20:10 hours, while it was on run between Stations Rangiya and Ghograpar at Km 355 / 8-6. Locomotive WDM3D 11333 that hauled the 15640 Dn Guwahati - Puri Exp derailed by all wheels. 8 (Eight) coaches from the engine derailed. Three derailed coaches capsized and one came to rest in tilted condition. A crater of approximate size 4'x3'x1.5' was there on left side under the track. An electric wire was found at the place of occurrence.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that the accident occurred due to an act of train wrecking by planting certain explosive device / bomb in the track and triggering the same by a remote control or otherwise in the face of the approaching train by some unknown person(s).
- **2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

- 3.0 The remarks and recommendations made by CRS & action taken by Railways are given below -
- 3.1 (a) Recommendation: Integrated Security System envisaged addresses security aspects in the Station premises and trains. Implementation of the same reportedly in progress need to be expedited. Deficiencies as highlighted by the Security Department of NF Railway viz (1) Augmentation of the existing strength and sanction of strength for new line sections commissioned, (2) Bomb Disposal Squad etc need to be addressed
 - (b) Action by Railways: The matter was got examined through CSC/RPF/ Northeast Frontier Railway. Integrated Security System is being

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implemented over 8 railway stations of N.F. Railway in first phase. These stations include Katihar, Kishanganj, New Jalpaiguri, Siliguri junction, Guwahati, Lumding, Dimapur and Dibrugarh. Contract has already been awarded for implementation of the system and the supply of ISS equipment will be made shortly. Bomb dedection system is one of the components of the Integrated Security System. Manpower requirement is reviewed at regular interval of time and necessary action is initiated accordingly. In the recent past, 103 additional posts have been created over N.F. Railway for strengthening railway security.

- 3.2 (a) Recommendation: Security of track is a matter of concern looking at the security scenario obtaining in the region. For enhancing safety / security and hassle free train operation, Railway need to ensure security of track through suitable vigil posts manned by personnel suitably equipped in the identified vulnerable sections.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation: There has been inordinate delay in placement and movement of ARMEs to the accident site. Effective monitoring and movement of ARME / SPARMVs to the accident site as per the extant instructions with clear passage according precedence over all other trains and no detention whatsoever need to be ensured.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) Recommendation: Suitable arrangement to illuminate the accident site in a short time by the Crew using the unaffected Diesel Loco, as in the instant case shall be made.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation: Scale of safety equipments for their adequacy in such eventualities need to be reviewed. Availability of safety equipments need to be ensured without fail considering their importance during emergencies.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.6** (a) Recommendation:-Adverse site conditions with no accessibility by road vehicles revealed the need for ARME / SPARMV to be based at Rangiya for better handling of such eventualities in future.

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- **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) Recommendation:- Clearance of vegetation growth and bushes on the both side of the track up to the Railway boundary from security consideration should be ensured throughout the year.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.8 (a) Recommendation: In case of doubling section in future, Up and Dn tracks should be separated by such adequate distance that in case of accident the adjacent track is not obstructed / affected.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.9** (a) Recommendation: Large number of vacant posts in safety category shall be filled up on top priority.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.10 (a)** Recommendation: Booking and attendance of Train Ticket Checking Staff for refresher courses as per the training schedule laid shall be ensured for efficient performance and discharge of duties / role envisaged.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xvii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, INTO THE DASHING OF 52171 DN GWALIOR-SHEOPURKALAN PASSENGER TRAIN WITH TRUCK AT UNMANNED LEVEL CROSSING NO. 118/C BETWEEN SABALGARH AND BIRPUR STATIONS OF JHANSI DIVISION OF NORTH CENTRAL RAILWAY ON 09.09.2011.

I. PREAMBLE

1.1 THE ACCIDENT: 52171DN Gwalior-Sheopurkalan passenger train ex-Gwalior to Sheopurkalan hauled by NDM-5 Locomotive having a load of 8 coaches departed from Sabalgarh on at 11.35 hrs on 09.09.2011. The train collided with a truck at unmanned level crossing No. 118/C between Sabalgarh & Birpur Stations.

After the collision, the truck got entangled in the locomotive and was dragged for a distance of 12.72 meters. The train was stopped 12.72 meters after the level crossing. The locomotive got derailed by all wheels and Trailing axle of the leading trolley of the first coach also derailed. Guard of the train informed SM/Sabalgarh on Walkie-Talkie about the accident at 12.27 hrs.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that the accident occurred due to negligent driving by the driver of truck.
- 2.2 Cause as established by Commissioner of Railway Safety was accepted by the government.

- 3.0 The remarks and recommendations made by Commissioner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: Railway administration should liaise with civil and police authorities and impress upon them to conduct frequent checks at unmanned level crossings to apprehend vehicle drivers who violate provisions of section 131 of Motor Vehicle Act, 1988 and endanger life of travelling public.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

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- 3.2 (a) Recommendation: Provisions of Section 131 of Motor Vehicle Act, 1988 should be given wide publicity to inform and educate road users.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation: In view of gross negligence on the part of road users in this area, safety of train passengers is endangered in the narrow gauge section. A speed restriction of 15 KMPH was imposed at LC 118/C. A review of all unmanned level crossings should be carried out in the section and wherever road traffic has increased suitable speed restrictions should be imposed at unmanned level crossings.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xviii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DASHING OF 55611 UP FAKIRAGRAM - KAMAKHYA FAST PASSENGER WITH A LOADED DUMPER AT UNMANNED LEVEL CROSSING GATE NO. NN 256 BETWEEN CHAYAGAON AND MIRZA OF RANGIYA DIVISION OF NORTHEAST FRONTIER RAILWAY ON 7.12.2011.

I. PREAMBLE

1.1 THE ACCIDENT: On 07.12.2011, 55611 UP Fakiragram - Kamakhya Fast Passenger collided with a road dumper at 'C' Class Unmanned Level Crossing Gate No. NN-256 at km 146/3-4. As a result of the collision, the dumper was smashed into two parts and thrown sideways down the embankment to the left. Locomotive hauling the train was damaged and got disabled. Locomotive and coached remained on rails.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that the accident occurred due to the non observance of the provisions contained in Section 131 of the Motor Vehicles Act, 1988 by the deceased Driver of the loaded dumper who did not stop at the 'Stop Board' provided on the approach of the LC Gate. He instead chose to and continued to cross the railway tracks in the face of the approaching train resulting in collision.
- 2.2 Cause as established by Commissiner of Railway Safety was accepted by the government.

- 3.0 The remarks and recommendations made by Commissioner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation: Railway need to shift its focus and ensure quality of inspection by various officials and counseling role being played rather than simply building statistics of inspections that are devoid of quality.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.2** (a) Recommendation :- Quality of training being imparted by the Zonal/ Divisional training Institutes need to be improved.

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- **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation:-A proactive approach is called for in handling issues and matters related to safety and their efficient resolution with effective coordination with the Civil Authorities as required.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.4** (a) Recommendation:-Availability of safety equipments need to be ensured without fail considering their importance during emergencies.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.5** (a) Recommendation: Repeated failure of SPARMV/GHY to move in time is a matter of serious concern.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) Recommendation: In consideration of the need for providing prompt succor to the injured passengers in emergencies norms for manning coaches contained in the Commercial Circular No. 18 of 200 issued under Bd's No. 97/TC-V/13/3 dated 17.04.2000 need to be enforced without fail.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) Recommendation: In consideration of the important role to be discharged by the TTEs in emergencies. Railway need to fill up the vacancies of Ticket Checking Staff to ensure manning of coaches as per the instructions.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xix)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, INTO THE SIDE COLLISION OF 14055 UP BRAHMAPUTRA MAIL WITH BRAKE VAN OF UP DC 13189 NRPA WHILE PASSING THROUGH PLATFORM LINE (LINE NO. 1) AT KARANPURATO STATION ON TINPAHAR JN- SAHIBGANJ BROAD GAUGE SINGLE LINE NON-ELECTRIFIED 'B' ROUTE SECTION OF MALDA DIVISION OF EASTERN RAILWAY AT ABOUT 05:45 HOURS ON 11.01.2012.

I. PREAMBLE

1.1 THE ACCIDENT :- On 11.01.2012, a goods train stabled on Main Line (Line No. 2) of Karanpurato Station and Loco was shut down.

14055 UP Brahmaputra Mail hauled by Diesel locomotive no. WDP4 20049 on its run from Dibrugarh to Delhi was passing through the platform line (line No. 1) at Karanpurato Station at about 05:44 hours when goods train started rolling back brake van grazied & scrubbed coach No. NR 03230 WGSCN, positioned 12th from engine, in the portion after the rear door, entire length of coach No. NR 16669 WGSCN (13th from engine) knocking down the doors and pressed its side all along the length puncturing and shearing the side of NR 04292 WGSCN (14th from engine) and causing the coach to derail by all wheels and mounting on the same.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that the accident occurred while 14055 Up Brahmaputra Mail was entering and passing Karanpura to Station Yard via platform line no. 1, side collision with Brake Van of Up DC 13189 NRPA took place due to rolling back towards Taljhari side beyond/ outside the fouling mark at Taljhari end of Karanpura to station Yard of Up DC 13189 NRPA with its disabled dead Loco stabled on main line on Up / rising gradient obtaining in Karanpura to station Yard and not secured as per extant rules and instructions.
- 2.2 Cause as established by Commissiner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.0 The remarks and recommendations made by Commissiner of Railway Safety & action taken by Railways are given below -

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- 3.1 (a) Recommendation: Mishap brought to focus the vital role of Fuel Booster Pump. From safety considerations, provision and availability of an additional Fuel Booster Pump to act as standby in Diesel Locomotives need consideration
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation: Mishap brought to focus the weakness of the Air Brake System in the event of failure of Loco. Existing braking system need to be reengineered to ensure a fail-safe condition in the event of failure of loco and / or availability of low pneumatic pressure. Possibilities and options need to be explored.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.3** (a) Recommendation: Undue delay in dispatch of ARME from Divisional HQ for operational reasons is a matter of concern.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) Recommendation: Station Working Rules need to be prepared with due care particularly guarding against omission of vital features having a bearing on safety.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation: Variation in gradient obtaining in Karanpurato Station Yard from that on various records that have come to light call for examination gradient in Station Yards and review/correction of relevant records accordingly from safety considerations.
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) Recommendation: Failure of a number of officials in spite of availability of clear and adequate rules and instructions is a matter of serious concern.

 Railway need to ponder and address the malaise/root cause of such failures to arrest the same.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DASHING OF AUTO-RICKSHAW WITH 15901 YASHWANTPUR-DIBRUGARH EXPRESS TRAIN AT 'C' CLASS UNMANNED LEVEL CROSSING NO. 131 BETWEEN KODAVALURU AND TALAMANCHI RAILWAY STATIONS ON GUDUR-VIJAYAWADA BROAD GAUGE DOUBLE LINE ELECTRIFIED SECTION OF VIJAYAWADA DIVISION OF SOUTH CENTRAL RAILWAY AT 13.13 HRS ON 12.06.2012.

I. PREAMBLE

1.1 THE ACCIDENT: - The train No.15901 Yashwantpur-Dibrugarh Express hauled by Electric Locomotive with a load of 23 coaches started from Tiruvottivur at 10.25 hrs on 12.6.12. The train passed through Kodavaluru station at about 13.09 hours and was running towards Talamanchi station. While the train was approaching 'C' class Engineering unmanned level crossing No. 131 at Km. 188/14-16 between Kodavaluru and Talamanchi stations on Gudur-Vijayawada electrified double line, an Auto Rickshaw bearing registration No.AP-26 TA 1358, entered into the level crossing gate. The auto-rickshaw crossed the up line track and then it was hit by the right side front buffer of the locomotive of the train No. 15901 express running on Down line track. With the impact of the accident, the front panel of the auto-rickshaw along with front wheel got separated from the auto-rickshaw and was thrown off on the right hand side of the UP line track. The rear portion of the auto-rickshaw grazed with Coach (next to train engine), and fell, with its right side resting on the ballast, in between UP and Dn line tracks. In this position, the left hand side back portion of the auto-rickshaw infringed with the running train and grazed against right side body panels of some of the train coaches.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that the accident occurred due to non-observance of the provisions of Section 131 of Motor Vehicles Act, 1988 by the driver of the auto-rickshaw.
- **2.2** Cause as established by Commissiner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.0 Remarks and recommendations made by Commissiner of Railway Safety &

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action taken by Rlys are given below -

- 3.1 (a) Recommendation: Railway administration should liaise with civil and police authorities and impress upon them to conduct frequent checks at unmanned level crossings to apprehend vehicle drivers who violate provisions of section 131 of Motor Vehicle Act, 1988 and endanger life of traveling public.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.2** (a) Recommendation: Railway administration should organize regular safety drives for educating the road users regarding provisions of Section 131 of Motor Vehicles Act 1988.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.3** (a) Recommendation: Provisions of Section 156 of I.R. Act should be strictly enforced. Railway should launch special drive/campaign against footboard travel and, wherever required, should augment the number of GS coaches to control overcrowding and travelling on footboard.
 - (b) Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.
- **3.4** (a) Recommendation: Unmanned Level Crossing No. 131 should be manned on priority in view of higher TVUs at this LC.
 - **(b)** Action by Railways :- The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation: Railway Administration should pursue with the State Governments/Road Authorities to provide the safety measures to minimize accidents at Road-Rail level crossings as specified in para 21 of Standards for Road Rail Level Crossings (IRC:39-1986).
 - **(b)** Action by Railways: The position has been explained by the Railway Administration to the satisfaction of the Commission.