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ABSTRACTS OF RAILWAY ACCIDENT INQUIRY REPORTS



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FORWORD

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 my inconvenience, expense or loss/damage caused by the use of the information given in this periodical.

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ABBREVIATIONS

ACP	:	Alam 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 Rialway 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 Superintendpt / 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 Railway (French)
VHF	:	Very High Frequency
ZTC	:	Zonal Training Centre

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 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.

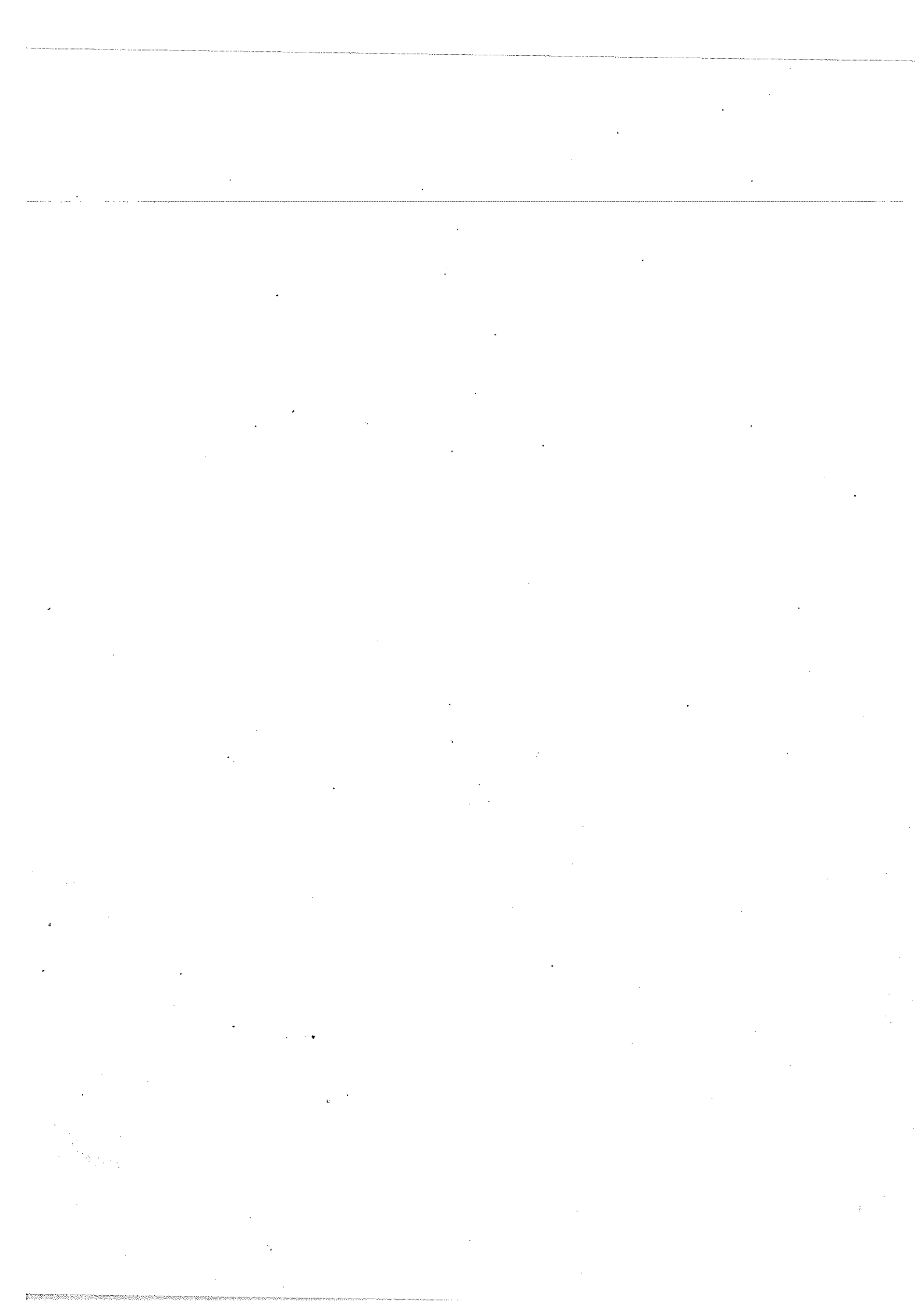
4. POWERS OF COMMISSIONER IN RELATION TO INQUIRIES.

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).



**ABSTRACTS OF
RAILWAY ACCIDENT
INQUIRY REPORTS**

ACCIDENT- (i)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DERAILMENT OF TRAIN NO. 727 MADURAI – KOLLAM UP PASSENGER BETWEEN TIRUNELVELI –NAGERCOIL BG SECTION IN TRIVANDRUM DIVISION OF SOUTHERN RAILWAY ON 20.03.2008.

I. PREAMBLE

1.1 THE ACCIDENT : - The train no. 727 passenger running between Madurai to Qulion left Valliyur at 03.44 hrs, on 20.03.2008, when the ill fated train was passing at Km. 316 the Loco Pilot felt a jerk with metallic sound. Before he could react and apply brakes, the train had met with Derailment and stopped before reaching Aralvaymoli. Nine coaches starting from 7th from train engine to 15th had derailed between Km. 316/300 to 315 /800. Out of these coaches, 10th and 11th coaches, namely, S1 and S2 coaches had capsized. As per the first information nine passengers had received simple injuries and Seven Passengers had received grievous injuries. The injured were moved to hospitals in and around Nagercoil. The accident has occurred on an embankment of height of about 2.5 m. The left rail has come out of the track for a distance of about 294m, and the rail was lying at a distance of about 4.2m. from the track at the maximum displaced location to 1.83m, at the weld cut end and 0.4m. at the other end.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway safety concluded that accident occurred due to weld Failure of 90 RAT weld on transition curve of 2 curve when the train exiting from curev.
- 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 acting taken by Railway are given below.
- 3.1 (a) Recommendation :-** Both the MRV's VIZ Quilon & Madurai have taken more time than the normal to start MRV's. Railway to look into this and take remedial action.
- (b) Action taken by Railway :-** Accepted. Necessary instructions have been issued by Ministry of Railways to General Manager / Southern Railway vide letter No. 2009/TT-IV/12/4 dated 25.08.2009 to take necessary action.

- 3.2 (a) **Recommendation :-** Heavy Corrosion noticed in the underside on coaches, Railway need to take urgent action to prevent corrosion, besides taking action to measure extent of loss of section due corrosion of various components and take action as required if loss of section is beyond permissible limits.
- (b) **Action taken by Railway –** CMEs/All Indian Railway have been advised vide Ministry of Railways letter No. 2009/M (Safety) /7/2/SR-III dated 08.06.2010 to take action in Workshop to follow the guidelines issued by RDSO (Tech. Pamphlet No. C.7602 Rev.I) regarding corrosion repair of coaches, also get an internal audit done to identify the short coming if any, and take necessary action accordingly.
- 3.3 (a) **Recommendation :-** The work of provision of joggled fishplates for all Alumino Thermic Welds is in progress, this work has to be hastened up and completed at the earliest. TRR shall be sanctioned and executed early.
- (b) **Action taken by Railways :-** Instructions have already been reiterated vide Ministry of Railway's letter No. Track/21/99/0910/07 dated 04.05.2011 in regard to Protection of AT welds.
- 3.4 (a) **Recommendation :-** From the Report of WRI / Tiruchy it could be seen that improper welding in coaches caused the two abnormal failure mentioned above in the coaches. Hence Railway shall take immediate and adequate actions to eliminate such situation by improving quality of welds in coach Manufacturing units, Shops which takes up POH and Maintenance Depots.
- (b) **Action taken by Railways :-** Zonal Railways have been advised vide Ministry of Railways' letter No. 2009/M (safety)/7/2/SR-III dated 19.07.2010 that necessary Guidelines already exist for periodical checking of competency of welders, wherein Railways have been asked to follow specification No. IS:7310(Part-I)-1974. This specification covers "the approval tests for welders working to approved welding procedure". This BIS standard also stipulates the norm for re-approval of welder. Welder approval test record may be kept as per appendix 'A' of this specification. Zonal Railways have been advised to take necessary action on the above.
- 3.5 (a) **Recommendation :-** Also Railways o consider Mid Life Rehabilitation of Coaches as Mandatory Schedule and arrange the same by arranging resources for the same.
- (b) **Action taken by Railways –** The MLR capacity as on date in BPL and Parel is approx.650-700. Arising is about 1500. It is already being tried to

ACCIDENT- (i)

increase MLR capacity at BPL. In the meanwhile, an activity called refurbishing has also been introduced alongside POH by utilizing workshop's capacity due to switch over from 12 month to 18 month POH schedule.

3.6 (a) Recommendation :- It was recommended to Railways, after getting the information about the Rail Stresses, to review the speed permitted for locos on the section to bring the stresses well within the permissible limit. Railway have advised that they have reduced the speed. Further Commission has advised to review the speed for WDP2, WDG3A, WDM3D and such other loco / Rolling stocks, as the stresses were higher even at 60 kmph. The same exercise shall be carried out through out the Railway under advice to Commission.

(b) Action taken by Railways – The 727 passenger which was derailed in Tirunelveli-Nagercoil section on 20.03.2008 was hauled by WDM 2 locomotive. As per RDSO speed certificate No. SD. WDM2.11 dated 05.06.1998, the maximum permissible speed is 110 kmph for a minimum track standard of 90R rails on sleepers to M+4 density. The maximum permissible speed in this section was 90 Kmph as sanctioned by CRS.

Since the maximum speed permissible as per the certificates issued by RDSO for WDM2 locos is 110 kmph for 90R rails, it was not found necessary by this Railway to reduce the speed below 90kmph which is only 80% of maximum permissible speed certified by RDSO.

As desired by the Commission after the accident, RDSO was approached to clarify the permissible stresses in 90R rails. RDSO vide letter No.CT/DDDL/WDM2 dated 21/25.11.2008 certified that operation of rolling stock can be permitted to run on 90R rail with certain stipulations as mentioned below.

"For operation on 90R rails, Zonal Railways may impose such further restrictions of speed as deemed fit based on the age and condition of track, overdue renewal track and extent of rail fracture / weld failure defect generation rate occurring in the sections."

Accordingly, Principal Chief Engineer has restricted maximum speed of passenger carrying trains to 75 kmph and Trivandrum Division has been advised to impose the restriction of 75 kmph on 901 R rail stretches on Nagercoil Junction –Tirunelveli section including the section between Valliyur and Aralvaimozhi stations renewals are completed with 52 kg rails.

Now the 90R rails have been replaced with 52 kg rail and the speed restriction of 75 kmph was relaxed to 90 kmph on 21.08.2009.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE HEAD ON COLLISION 530 DN GORAKHPUR – MUZAFFERPUR PASSENGER TRAIN WITH SHUNTING ENGINE OF 405 UP RAXUAL-SAGauli PASSANGER AT SAGauli STATION OF NARKATIAGANJ-MUZAFFERPUR NON-ELECTRIFIED B.G. SINGLE LINE SECTION OF SAMASTIPUR DIVISION OF EAST CENTRAL RAILWAY AT 05:04 HRS ON 14-02-2009.

I. PREAMBLE

- 1.1 **THE ACCIDENT :-** 530 Dn GKP-MFP passanger worked by Loco no. 16524 WDM2, with 13 coaches, left Majhulia station at 04:45 hours. In the mean time, the shunting of train engine no. 17818 WDM2 of 405 up, which had arrived at sagauli junction at 01.40 hours on 14.02.2009, was ordered by the on duty ASM via line no. 2 for making it on load on the rake of 405/406, Dn, which was on PF no. 4, to work as 406 Dn towards Raxaul. When shunting engine was moving towards advance starter, 530 Dn which had left Majhulia collided against it at 05.04 hours.

As a result, loco no. 17818 WDM2 was badly damaged and got capsized blocking the Line no. 2 and 3. Engine no. 16524 WDM2 of 530 Dn also got derailed by all wheels on the cross over of line no. 2 & 3. Two coaches of 530 Dn (position 1st and 2nd from Train engine) also got derailed.

II CAUSE OF THE ACCIDENT

- 2.1 Commissiner of Railway Safety concluded that accident occurred due to disregard of Home signal by the crew of 530 Dn passenger train at a high speed as well as shunting operation being conducted at Sagauli Station on the face of approaching train, violating SWR.
- 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 :-** An intensive counseling drive is emphasized to educate drivers/guards towards strict adherence to rules for safe train operation.

ACCIDENT- (ii)

- (b) **Action by Railways :-** Instructions have been issued to the General Manager/East Central Railway vide Board's letter No. 2009/Safety-I/2/2 dated 13.10.2011 to launch drives repeatedly to improve the alertness and discipline of drivers/ guards.
- 3.2 (a) **Recommendation :-** A periodical foot plate inspection drive is stressed at officer's level to inculcate adequate alertness on the part of train engine crew specially during the wee hours when there is a tendency of drowsiness.
- (b) **Action by Railways :-** Instructions have been issued to the General Manager/East Central Railway vide Board's letter No. 2009/Safety-I/2/2 dated 13.10.2011 to launch drives repeatedly to improve the alertness and discipline of drivers/ guards.
- 3.3 (a) **Recommendation :-** Shunting in the station yard on the face of approaching trains should normally be avoided. If enescapable, must be done with extra precaution observing the relevant rules in letter and spirit.
- (b) **Action by Railways :-** In view of (CCRS) remarks, necessary instruction have been issued to the general manager / East Central Railway Vide Bored's East letter No. 229/Safety (AER)/19/8 Dt. 04-11-2011.
- 3.4 (a) **Recommendation :-** In addition to the above, early installation/ commissioning of Anti Collision Device (ACD) in railway system is also recommended as a measure of safeguard against such collision.
- (b) **Action by Railways :-** Proven and dependable On-Board Train Protection systems only shall be deployed for enhancing the level of safety.

Deployment of Anti-Collision Device (ACD) after initial trials was done on N.F. Railway. This was a single/double line non-electrified Board Gauge section. Based on the experience of the N.F. Railway, to improve reliability and dependability of ACDs and to test its functioning on multiple lines as well as electrified routes, the specifications and design configuration were revised and the system as evolved was tried on the electrified multiple lines automatic signaling section of the Southern Railway trials are being looked into and a new ACD Version-II after successful validation and certification will undergo extensive conformity trials.

Works for ACD have been sanctioned covering 8486 Route Kms. to expedite implementation of ACD Version-II, subsequent to successful validation & certification and deployment of improved ACD Version-II on N.F. Railway with acceptable performance as per defined parameters.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DERAILMENT OF 5708 Dn. AMRITSAR-KATIHAR AMRAPALI EXPRESS TRAIN BETWEEN GAUCHHARI AND PASRAHA RAILWAY STATIONS ON BARAUNI-KATHIHAR, BG DOULBE LINE, NON-ELECTRIFIED SECTION OF SONPUR DIVISION OF EAST CENTRAL RAILWAY at 22.50 hours ON 07.10.2009.

I. PREAMBLE

1.1 THE ACCIDENT :- 5708 Dn. Amritsar-Katihar Amrapali empress comprising of 23 coaches worked by Diesel locomotive no. 18663 WDM3A, left Mansi Jn. station at 22.29 hrs on 07.10.09 after its schedule stoppage. The train derailed between Gauchari station and Pasraha station at Km 92/9-93/1 at about 23.00 hrs on 07.10.09 by Train Engine and 06 front coaches. The train engine went into nearby pool of water, about 20 meter away from the track. Out of 06 derailed coaches, 05 had capsized blocking the UP line also. There was no parting of the train.

II CAUSE OF THE ACCIDENT

2.1 Commissioner of Railway Safety concluded that accident occurred due to subsidence of bank along with lateral movement of slope under the Down Track.

2.1.1 Cause as established by CPS 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** :- Since the bank under down line in Gauchhari-Narayanpur section is prone to failure, detailed investigation be done to arrive at the cause and thereafter required corrective and preventive measure are taken properly, before train operation is resumed in the section on Dn line.

(b) **Action by Railways** :- RSDD had been instructed to examine failure and suggest corrective action by Railway Board. RDSO team inspected site and submitted interim and final consultancy report CR 138 (Oct. 2009) on the issue. Board (ME) has accepted recommendations of report with minor modifications. However work could not be completed so far due to failure

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of contract and alternate contract is being fixed. Traffic on this section, which is closed for traffic, can resume after completion of rehabilitation work.

- 3.2 (a) **Recommendation :-** An independent expert team from institution of repute viz IIT/Roorkee, New Delhi etc. may be requisitioned for detailed analysis of the site condition to ascertain the deficiency which caused the bank failure and to suggest remedial measures.
- (b) **Action by Railways :-** RSDD had been instructed to examine failure and suggest corrective action by Railway Board. RDSO team inspected site and submitted interim and final consultancy report CR 138 (Oct. 2009) on the issue. Board (ME) has accepted recommendations of report with minor modifications. However work could not be completed so far due to failure of contract and alternate contract is being fixed. Traffic on this section, which is closed for traffic, can resume after completion of rehabilitation work.
- 3.3 (a) **Recommendation :-** The mandated patrolling in the section is required to be put on sound footing during monsoon by intensive/extensive inspection/monitoring at senior officers level.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** In addition, I also recommended that Railway should learn appropriate lesson from the accident to ensure proper work during construction of the formation in a Gauge conversion/doubling project work.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DERAILMENT OF 2443 UP BHUBANESWAR - NEW DELHI RAJDHANI EXPRESS TRAIN BETWEEN KASTHA AND PARAIYA STATIONS ON GAYA - MUGHALSARAI, BG DOUBLE LINE, ELECTRIFIED SECTION OF MUGHALSARAI DIVISION OF EAST CENTRAL RAILWAY AT 23.45 HOURS ON 22.03.2010.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** 2443 Up Bhubaneswar - New Delhi Rajdhani Express comprising of 13 coaches worked by Electric Locomotive no 22732 WAP4 left Gaya Jn. station at 23.35 hrs on 22.03.10 after its schedule stoppage. The train derailed between Kastha and Paraiya stations at km 482/27 at about 23.45 hrs on 22.03.10 by Train Engine and 10 Front coaches. The driver had heard loud explosion sound and had applied emergency brake.

II CAUSE OF THE ACCIDENT

- 2.1** The Commissioner of Railway Safety concluded that accident occurred due to explosion of bomb on railway track.
- 2.2** Cause as established by Commission of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** The remarks and recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Adequate measures are required to be taken by railways in association with State police to ward off sabotage of railway track and other vital installations/equipments, which have direct bearing in the safe operation of passenger carrying trains.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation :-** Measures need to be intensified during Bundh call or on intelligence input of any subversive activities.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

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- 3.3 (a) **Recommendation :-** Patrol specials programmed during the Bundh etc should be proactively used to patrol the vulnerable beat, rather than waiting for any untoward incident to happen and then rushing to the site of incident.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Movement programme of patrol specials should be closely monitored at the highest level in the division viz DRM/ADRM.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Night security patrolling during Bundh etc. need be strengthened and made more effective.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** Ordering of ARMVs in case of passenger train accident should be immediate and dispatch/movement prompt well within the legislative timings.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DERAILMENT OF 2424 DN. NEW DELHI-GUWAHATI RAJDHANI EXPRESS BETWEEN KHARIK AND NAUGACHHIA STATIONS ON BARAUNI-KATI HAR, BG DOULBE LINE, NON-ELECTRIFIED SECTION OF SONPUR DIVISION ON EAST CENTRAL RAILWAY ON 25.05.2010.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** 2424 New Delhi-Guwahati Rajdhani Express left Barauni Jn. at 4.47 hrs on 25.5.10 after its schedule stoppage and during its journey towards Katihar, it derailed between Kharik and Naugachhia stations at km 63/5-1 at 6.34 hrs by 14 coaches (5th from Train Engine to the rearmost). The train engine along with 04 coaches in the front were not derailed.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that accident occurred due to removal of Elastic Rail clips from railway track.
- 2.2** Cause of the accident as established by CRS was not accepted by Government.

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 :-** Adequate measures are required to be taken by railways in association with State police to ward off sabotage of railway track and other vital installations/equipments which have direct bearing in the safe operation of passenger carrying trains..
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.2 (a) Recommendation :-** Preventive measures need to be effectively put in place in the sensitive section on intelligence input of any subversive activities.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

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- 3.3 (a) **Recommendation :-** Preservation of clues at the site of accident must be meticulous and factual involving all having stake.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.4 (a) **Recommendation :-** Preparation of Joint report of the accident by Sr. Supervisors visiting the site should be analytical and in detail.
- (b) **Action by Railways :-** The matter has been examined and necessary instructions have been issued to Zonal Railways vide Ministry of Railways letter No. 2013 / Safety (A & R)/19/3 dated 22.4.2013.
- 3.5 (a) **Recommendation :-** Sr. Supervisors and officers need to be suitably trained in above regard by competent instructors.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY DASHING OF GOODS TRAIN NO NHB-38 WITH ROAD VEHICLES (BUS AND MINI TRUCK) AT SPL. CLASS MANNED LEVEL CROSSING NO. PH 23 BETWEEN KESHPUR AND TAMLUK STATION OF KHARAGPUR DIVISION OF SOUTH EASTERN RAILWAY ON 24.03.2011.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** On 24.03.2011, Goods train No. NHB-38 hauled by Locomotive No-23039 (WAG 5-A). (leading) and No. 23130 (WAG-5-A) (trailing) with 60 wagons while on run from Haldia, passed through Mahishadal at 1848 hours and Keshabpur at 1901 hours. A caution order, stating "LC Gate boom wire cutting so, look and proceed as per rule", was handed over to crew at KSBP station while the train was still on run at a speed of approximately 7 kmph. The train passed Junction Cabin at about 1907 hours and did not stop at the gate signal which was at danger. After passing the gate signal at danger, while the train was approaching the level crossing gate No. PH-23 at Km.25/16-17, the leading loco No. 23039 (WAG 5-A) of the Goods train dashed with road vehicles (bus No. WB29/A-2241 and mini truck No. BW11-4892), at the level crossing.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that accident occurred due to non-observance of rule by Railway staff during abnormal working.
- 2.2** Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks & Reccomandations made by Commissiner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Railways may introduce system of exchange of "Private Number" (PN) between Gate Keeper and SM for train operation at interlocked LC gates during failure. All rules pertaining to 'Non-interlocked LC gate' to be made applicable till restoration specially with regard to exchange of PN as stipulated in GWR.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

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- 3.2 (a) **Recommendation** :- Railways may immediately issue detailed clarification of the provision of GR3.73 sub rule (2) and SR 16.04.04 clearly indicating the distinctions between the two and the different situations/ circumstances when these are applicable. Extensive counseling may be organized to educate all the field staff, supervisors, Crew and Guard in this regard.
- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.3 (a) **Recommendation** :- Railways may ensure provision of "interlocked Emergency Key" at the interlocked LC gate as per the practice in vogue in most of the Railway systems. Railways may revise the specification of wire insulator to improve its quality..
- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.4 (a) **Recommendation** :- The failure status of gate boom i.e. whether the failure has resulted in obstructing the road traffic/rail traffic must be clarified by the SMs from Gate Keepers before planning movement of rail traffic. "Caution order" issued to crew and guard must be specific regarding speed and stoppage. Caution order also must clearly state the type of damages and whether the gate is being worked as a "non interlocked gate".
- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.5 (a) **Recommendation** :- Railway may ensure immediate assistance to Gatekeeper of Special class tgate in the event of failure by deputing RPF personnel/Local police for controlling the road traffic movement. Sectional PWI / DTI may also be deputed as being done in case of any other abnormality.
- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of hte Commission.
- 3.6 (a) **Recommendation** :- Railway may issue detailed guidelines for undertaking repairs at busy LC gates. Safety procedures, to be followed during the repairs, for ensuring safe movement of both road and rail traffic, may be issued legislating duties and responsibilities.
- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of hte Commission.

- 3.7 (a) **Recommendation :-** Railway may immediately attend to all shortcomings and deficiencies at this LC gate and ensure strict compliance of provision of IRPWM and SEM.

All the warning and statutory boards may be made luminous as per laid down standard. Due to obstructed visibility, additional road warning boards may be provided. Approach roads may be provided with retro-reflective indicators for improving visibility during night.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.8 (a) **Recommendation :-** Road signals may be shifted outside the boom and to be fixed as per standard ensuring its clear visibility to road vehicle drivers.

Audio visual alarm / warning system (Ambulance type) for advance indication to road users may be provided at the 'Height gauge' of LC gates.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.9 (a) **Recommendation :-** DOS & DONTs, to be observed during abnormal working at the LC gates, may be issued for guidance of Gate keepers/ SMs and displayed prominently at a conspicuous place in the gate lodges and stations to draw regular attention of the employees.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.10 (a) **Recommendation :-** List of "special class LC gates" may be made available to all the Section Controllers with strict guidelines to plan train operation during failure of LC gates, constantly reviewing the status of road traffic blockade.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.11 (a) **Recommendation :-** "Traffic Block" may be availed for repairs of gate equipments, particularly during final testing, both in case of boom breakage/defect as well as signal defect at Spl. Class LC gate.

Failure reported by Gateman may automatically render the special class interlocked gate disconnected and no separate disconnection memo may be needed for undertaking repair.

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Railways may issue clear guideline for undertaking repairs while ensuring safety of train operation similar to rectification of failure of track, OHE, signals etc.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

- 3.12 (a) **Recommendation :-** Special class LC gate having such skewed layour may be provided with "Double Barrier"/"Two Half Barrier".

Railways may consider provision of electrically operated lifting barrier at all special LC gate initially and extent it to other manned LC gates subsequently at least in the electrified section.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

- 3.13 (a) **Recommendation :-** Electrical lighting arrangement may be improved at all special calls LC gates. Flood light may be provided at LC gate which will not only imporve visibility of both road vehicle driver and loco driver, but also help Gate keeper to have meaningful observation of under gears of passing trains. This has been already adopted by SEC Railway.

The 'special class interlocked gates' may be provided with AT of 10 KCA rating, in place of existing 5 KVA. In double line section, two numbers of ATs may be provided and in Single Line Section DG set may be provided. Railways may also consider provision of mini IPS for gate signal as "Signal no light" condition is fraught with great risk.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of hte Commission.

- 3.14 (a) **Recommendation :-** Gateman working at Special Class LC gates may be provided with mobile phone, walkie and DOT phones may be provided at the Gate lodge. Important telephone numbers i.e. of Local Police, Hospital and Ambulances Services to be kept at LC Gate.

Gatemen may be provided with luminous jackets, tri color torch lights, hand held loud speakers (Mega mike)/ PA system.

- (b) **Action by Railways :-** Gatemen are provided jackets as per instructions issued under Ministry of Railway's letters No. E (W) 95 UNI-19 dated 27.12.2005 & No.E(W)2006/UN-1/1 dated 01.11.2012 (copies enclosed). Subsequent to recommendations given by Joint Committee comprising the representations of the staff side and the official side constituted to

consider various issues related to package and career progression, instructions regarding uniform including jackets for Gatemen were circulated to Zonal Railway under Board's instruction dated No.E(W)2012/UN-1/5 dated 20.09.2012. It is evident that Gateman whether at LC gate or otherwise are provided jackets as per specification prescribed and serves the purpose quite well.

3.15 (a) Recommendation :- 'Joint inspection' of special class gate at Sr. Subordinates and Asstt. Officers level may be introduced at an interval of six months / one year respectively. Railways may make a special joint inspection of all special LC gates to formulate detailed action plan for improvement.

(b) Action by Railways :- The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.16 (a) Recommendation :- Railway may consider provision of rubberized road surface at all special class LC gates in view of heavy density of road traffic.

Separate standard may be laid down for special LC gates having TVU more than 50,000 with regard to signaling system, communication system, boom closing system, road surface and lay out, safety items, road signage, illumination and above all the design of gate lodge.

Track Management System (TMS) may incorporate details of all LC gate including the pictorial status.

In addition, safety organization may keep and update pictorial data of LC gates at least once in six months.

Railway may consider use of advanced technology such as GSMR, SIMRAN communication system, auto logging of PN, gate phone with time and voice record.

(b) Action by Railways :- The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.17 (a) Recommendation :- Railways may introduce "one day acquaintance training" for SM. Dy SS of adjacent stations at the LC gates. This will facilitate better understanding of the gate working both during normal and abnormal working. For this purpose abnormal working may be simulated. This shall definitely help in achieving greater harmony in functioning of front line staff.

Gateman before being deputed to work in special class interlocked LC

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gates may be given a "Special training" for at least 3 days covering all special features of Gate working including signaling system and abnormal working. "Competence Certificate" may include this.

Railway may institute a special refresher course for 2 days once in every year apart from regular refresher course once in 5 years. The special refresher course may cover all types of abnormal working with stress on communication skill.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.18 (a) **Recommendation :-** Divisional Control Office/SMR of the controlling station on receipt of information of Gate failure may intimate local police for control of road traffic. Regular coordination with State authorities may be made to improve safety in working environment at the gate.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.19 (a) **Recommendation :-** Gatemen's uniform may be improved (be made similar to road traffic police) to give him a higher sense of authority, responsibility and respectability. State Govt, may be persuaded to modify the MV act to assign role of gateman similar to that of road traffic police as he discharges almost similar functions.

Railways may consider special remuneration package/better service conditions for the gateman category in general and gateman deputed at special LC gate in particular. Pay package, grade and designation for gateman at Special Class LC gates may be different. They may be designated as Gate Controller (Special). This may go a long way in motivating the employees who are presently working with sagging morale under hostile working condition.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.20 (a) **Recommendation :-** Railway may pursue with State Authorities for construction of ROB as the TVU is already very high and likely to go up considerably both with commissioning of double line as well as general growth in road/ rail traffic..

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONERE OF RAILWAY SAFETY ON DERAILMENT OF 11123 UP BARAUNI-GWALIOR MAIL BETWEEN UJIYARPUR AND SAMASTIPUR STATIONS OF BARAUNI-SAMASTIPUR, BG, DOUBLE LINE, NON-ELECTRIFIED SECTION OF SONPUR DIVISION OF EAST CENTRAL RAILWAY AND SUBSEQUENT DASHING OF ITS DERAILED COACH BY 13186 DN JAYNAGAR-SEALDAH GANGA SAGAR EXPRESS AT 19.51 HOURS ON 14.04.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- 11123 Up Barauni-Gwalior Mail, comprising of 19 airbrake coaches worked by Diesel Locomotive no 13292 WDG3A passed Ujyarpur station of Sonpur division of E.C. Rly at 19.45 hrs on 14.04.2011 and derailed with train engine and 07 front coochas at Km 31/8-12. The driver had applied the brake to stop his train seeing flying ballasts behind and flames coming out from below the under frame of his locomotive.

In the meantime, 13186 Dn Jaynagar- Sealdah Ganga Sagar Express, consisting of 18 air brake coaches, worked by Diesel Locomotive no 18538 WDM3A, left Samastipur station at 19.45 hrs on 14.4.11 after its schedule stoppage and while on run on Dn line towards Ujyarpur station dashed against the derailed front SLR no SC 97725 OF 11123 Up which was infringing the Dn track after derailment. One wheel of one of the derailed coaches of 11123 Up got entangled between the under frame and front bogie of the train engine of 13186 Dn and got dragged along. This train stopped at Km 31.500. There was no derailment of the train engine and coaches of 13186 Dn. Right side of the loco cab and of the front SLR of 11123 Up were damaged. There were scratch marks on side panel of 8 front coaches of 13186 Dn above the windows and the driver of the train was injured on his right hand elbow.

II CAUSE OF THE ACCIDENT

2.1 Commissiner of Railway Safety concluded that accident occurred due to :-

- i) Unloading of rail panels near to the running rail infringing the MMD of the locomotive.
- ii) Deployment of a WDG3A locomotive marked "Unfit for passenger services" to work the train, in spite of prewarning about its shortcomings.

2.2 Cause as established by the CRS was accepted by the government.

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II. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks & Recommendations made by Commissioner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation :-** While unloading rail panels by the side of a running rail, placement of the panel rails clear of the Maximum Moving Dimension' is imperative. However, no adequate system to check the above was found in existence in the field except the visual perception and checking of infringement by moving the EUR train. This is not considered adequate. Detail instructions incorporating methodology of measurements of horizontal and vertical clearances of unloaded rail panels from running rail should be issued with a view to compare the actual clearances with the required clearances.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation :-** Before unloading rail panels, site of unloading should be prepared by way of leveling/removing extra ballast if any from crib and shoulder with the objective to ensure requisite lateral and vertical clearances as well as to avoid slippage of panel rails due to vibration during passage of trains at high speed.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) Recommendation :-** Unloading of rail panels should be done by a team of trained and dedicated gang under the active supervision of competent supervisor/officer.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) Recommendation :-** Reasonably adequate block should be asked and provided for unloading of long rail panels and the work should be done preferably in day light to avoid short cut in haste which may infringe the safety requirements.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) Recommendation :-** Loco declared unfit for passenger services should not be booked to work Mial / Exp. Passenger trains. In case of extreme exigencies, approval of concerning Branch Officer of the division must be

taken with concurrence of HOD of the railway.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** The WDG3A loco which worked the ill fated train was found to have the height of 08 of its axle box brackets and two of its equilizers above rail level to be less than 102 mm infringing MMD. Though the diameters of the loco wheels were near to the lowest condemning size, such infringement in MMD is not expected. A detailed study may be conducted involving more similar locos having the lowest condemning diameter wheels to know the reason for infringement of MMD if any.
- (b) **Action by Railways :-** RDSO has carried out a detailed study on this issue and suggested certain modifications which are being implemented.
- 3.7 (a) **Recommendation :-** The dimensions of a locomotive/rolling stock must be maintained within the prescribed MMD and as such the Diesel Loco sheds and other maintenance depots must evolve a system of periodical check in this regard.
- (b) **Action by Railways :-** MMD is a design feature and it is neither possible nor required for the maintenance sheds to check this. Instructions are, however, being issued to sensitize the maintenance sheds from undertaking any modifications on the locomotive, which may infringe the MMD.
- 3.8 (a) **Recommendation :-** At time, Loco Pilots of the train on adjoining line may miss seeing the 'Auto Flasher Light' of the distressed loco due to site conditions/impaired visibility, simultaneous actuation of continuous horns of the distressed loco or especially provided hooters in the loco will provide an added advantage to the loco pilot to get prewarned of any imminent danger to his train or to extend any help to the distressed loco pilot. Railway may adopt suitable modification in their locos, both diesel and Electric, which is simple and involves low cost.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.9 (a) **Recommendation :-** Railway should consider commissioning of Anti Collision Device (ACD) in their system at the earliest.
- (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 DERAILMENT OF GOODS TRAIN NO UP/BOBRN/STDV AND CONSEQUENT SIDE COLLISION WITH COACHING TRAIN NO DN/18108 KRPU-ROU EXP. AT SIKIR STATION YARD BETWEEN SAMBALPUR – TITLAGARH SECTION OF SAMBALPUR DIVISION OF EAST COAST RAILWAY AT 0026 HOURS OF 04.05.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- On 04.05.2011 at 0015 hours, train No DN/18108 KRPU-ROU Express left TIG on schedule. Crossing of his train and goods train UP/BOBRN/STDV was planned at Sikir station. Reception signals for both the trains at Sikir were cleared for simultaneous reception. Train DN/18108 Exp was to be admitted in loop No. 1, while the goods train UP/BOBRN/STDV was to be admitted in loop No.3. Goods train UP/BOBRN/STDV entered loop line No.3. It overshot starter signal No. S-9 of loop line No.3, entered into the sand hump and its both locomotives and 6 (six) wagons from the front derailed and capsized. Locomotives, infringed Main line and the first turnout to loop line No.1. Train was running on this line. Its locomotive and the first coach passed but there was collision with second coach to fifth coach. The train was stopped by crew with emergency brake application. The train moved a distance of approximately 60 to 70 mtrs, before stopping. As a result of the side collision, second coach was partially damaged, third coach was badly damaged with side panel completely sheared. Some Passengers of third coach were injured. Leading bogie of 4th coach was derailed. Derailed locomotive of goods train was also damaged in the side collision with driving cab completely sheared and thrown away.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway safety concluded that the accident occurred due to the failure of train crew of UP/BOBRN/STDV to respond to the signals governing the movement of train as well as to control and stop the train at the starter signal (No. S-9) of L-3 which was at "ON"..
- 2.2** Cause as established by the 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 :-** Railways may review "Long Hours Working" of crew and take immediate measures to bring significant improvement in this area of "Crew management". System of 'on line monitoring' of 'crew long hours' through CMS (Crew Management System) may be introduced.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** Section Controllers / power Controllers may be sensitized to their duties towards "fatigue care" of crew and Guard. Potential adverse outcome of poorly managed "crew fatigue" that may arise out of "long hours working" needs to be recognized at all level of management with due emphasis on self role in its control and mitigation.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** Control order Numbers' issued, must be duly approved at officer's level and properly recorded. Railways may also introduce system of issuing "control order number" through "SMS" directly to Crew and Guard.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Railways may issue detailed guidelines and procedure for working of banking loco and attachment of live/dead locos in both coaching as well as goods train. While attaching such locos, due consideration to be made with regard to train load, train length, emergency braking distance, tractive effort requirement etc..
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Railways may immediately review the status of implementation of GR 3.47, SR 3.47.01 and SR 3.47.02 during simultaneous reception of trains in all the stations in the single line section between SBP-TIG and TIG-R. Conflicting / redundant provisions in SWR, if any, may be revised and clarified to filed staff.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.

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- 3.6 (a) **Recommendation :-** Railways may make immediate short term / long term strategies for controlling 'Crew Long Hours'. Present system of issuing 'Return Piolet Memo' (CPT) to lure the crew may be abolished. Railways may also undertake extensive counseling of crew on various aspects of "on job alertness", "health care" and other life style issues.
- (b) **Action by Railways :-** Position has been explained by the Railway Admistration to the Satisfaction of the Commission.
- 3.7 (a) **Recommendation :-** Section Controller, Power Controller and Crew Controller must conduct periodical 'foot plate Inspection' of the section to acclimatize and acquaint themselves with the field working conditions and system.
- (b) **Action by Railways :-** Position has been explained by the Railway Admistration to the Satisfaction of the Commission.
- 3.8 (a) **Recommendation :-** Railways may ensure availability of all the safety equipment in Guard's brake van coaching trains. No coaching train must be allowed to run without TTE.
- (b) **Action by Railways :-** Position has been explained by the Railway Admistration to the Satisfaction of the Commission.
- 3.9 (a) **Recommendation :-** Railways may sort out technical snags in the "computerized control chart" so as to ensure that all details as was available in manual charting are available in the present system. Train composition to be correctly mentioned. Unusual occurrences and accident are to be clearly mentioned in Control chart..
- (b) **Action by Railways :-** The facility of capturing accident details is already available in Control Office Application (COA). COA provides different types of functionalities for capturing accidents. In accident module, there is provision to capture different type of movements like part movement, full movement, etc. Other accident related trains like ART, medical van etc. movement in affected block section scan also be captured. These movements are also depicted on the chart. Trains forward or backward movement can also be captured. In the accident module train activities within block section or at a station can be reported.
- In COA, time based remark upto 255 characters can be given. This time based remark can be reported for a block section in the case of accident in the block section or for a station. The screen shots of accident form and time based remarks are enclosed as Annexure 'A' & 'B'.

Accidents details in block section are depicted on the current chart which is available to the section controller and remarks are available on tooltip in the current chart. These remarks are also available in printed chart.

For viewing purpose, charts are available in MIS reports in the form of image in which remarks on tool tip are not available. However, two MIS reports are also available namely 'Accident in Block Section Detail' and 'Accident at Station Detail', in which details of accident along with all related remarks are available. The MIS reports (with test date) are enclosed as Annexure 'C' & 'D'.

Zonal Railways are occasionally using these features. COMs of respective Zonal Railways will have to be sensitized regarding filling up of Accident Module by Divisions.

- 3.10 (a) Recommendation :-** Railways may consider setting up of an intermediate crew base at BLGR on temporary measure at least during the summer months to ensure timely relief of crew working long hours.
- (b) Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.11 (a) Recommendation :-** Railways may pursue both short term and long term solutions to improve train operation in this section. Major infrastructure inputs such as doubling the route, setting up of additional crossing stations, electrification, right powering etc may be actively pursued.
- (b) Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.12 (a) Recommendation :-** Railways may expedite "Loco cab Modification" work to ensure better working environment for crew with reduced level of noise and other pollution. This shall also help in reducing fatigue. Cab modification must address the critical requirement of crash worthiness. Railway may also consider for improving crashworthiness of coaches and corrosion repairs
- (b) Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.13 (a) Recommendation :-** Railways may review the performance of Visual Control Device (VCD) to assess whether regular alert at one-minute interval is adequate or the periodicity to be reduced with random sequence.

Railway may examine the feasibility of having an 'auto warning' from SPM

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- and Event Recorder in the event of train exceeding certain speed limit.
- (b) **Action by Railways :-** In case MBCS locomotive, loco over speed fault message will be displayed and alarm bells starts for 30 sec. with motoring prohibited. Driver has to move the Master controller handle to idle after manual reset if the fault still present, the fault will be generated again.
- 3.14 (a) **Recommendation :-** Railways may review the present design and layout of "Sand humps" in view of the increased loop line speed for 15 kmph to 30 kmph. Moreover, sand hump layout may be such that in the event of derailment over it., the rolling stocks are thrown away from adjacent line.
- (b) **Action by Railways :-** No change is required as the Ministry of Railways agrees with the CCRS's recommendation.
- 3.15 (a) **Recommendation :-** Railways may review section wise "fuel ration" for each type of loco with standard trailing load afresh and issue the same for the guidance of all field staff including crew and controllers. Railways may develop an additional "fueling point" at SBP en route JSG-TIG in view of the present pattern of freight train operation.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.16 (a) **Recommendation :-** Railways may immediately stop working of trains without Guard. Special drive may be taken for recruitment of crew and Guard.
- (b) **Action by Railways :-** Necessary instructions have been issued to COM, East Coast Railway to make all out efforts to minimize/reduce running of trains without guards vide Board's letter No.2011/TT-IV/12/21 dated 14.5.12
- 3.17 (a) **Recommendation :-** Railways may undertake extensive training of rescue and relief for the nominated staff of ARME, Railways may also review the efficacy of existing rescue tools and plan for their replacement with more efficient tools.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.18 (a) **Recommendation :-** Railways may consider provision of hired ambulances at sub divisional hospital. Railways may comply the Board's directive of having MOU with local Gov./PVTT. Hospitals, for ensuring immediate treatment of accident victims

- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.19 (a) **Recommendation :-** Railways may introduce regular counseling of crew on 'Life Style' and 'food nutrition and health' issues by professionals. Crew may be motivated to give voluntary disclosure of medicines consumed by them for minor ailments. Railway may circulate list of common medicines, consumption of which may induce drowsiness for the benefit of running staff.
- (b) **Action by Railways :-** Position has been explained by the Railway Administration to the Satisfaction of the Commission.
- 3.20 (a) **Recommendation :-** Railways may engage professionals to have a scientific study of the problem of "Crew Fatigue" associated risk and suggest counter measures.
Railway may also consider introduction of scientific for "Fatigue level" measurement and decide various threshold limits in line with international practices "Crew Fatigue" may be accepted up front as a critical challenge to ensure rail safety.
Railway may demonstrate a strong commitment to support, promote and fund "Fatigue Management System".
- (b) **Action by Railways :-** Bringing improvement in running rooms and crew lobbies is a thrust area, as highlighted by the Board. Instructions to the Railways are also reiterated from time to time to accord priority to effect improvements in the running rooms with a view to ameliorate the working conditions of the running staff and this is a continuous process. However, to cover all running rooms to the same standards of quality will take time. In order to bring about general awareness regarding quality of running rooms, a running shield at Boards level has been created apart from 2nd and 3rd prizes to be awarded to the best running rooms in the country. This shield has instilled a sense of competition amongst various Zonal Railways and is helping in improving the conditions of running rooms; resulting in overcoming the stress related problems of "Crew Fatigue".

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY, ON THE DASHING OF AUTO-RICKSHAW NO. KA 42-1670 WITH THE TRAIN NO. 56232 BANGALORE CITY-MYSORE PASSENGER A 'C' CLASS ENGINEERING NON - INTERLOCKED MANNED LEVEL CROSSING GATE NO. 34 AT KM. 40/000 -100 ON DOWN LINE BETWEEN BIDADI AND RAMANGARAM STATIONS OF BANGALORE CITY-MYSORE SECTION OF BANGALORE DIVISION OF SOUTH WESTERN RAILWAY AT 10.31 HOURS ON 04.06.2011

I. PREAMBLE

1.1 THE ACCIDENT :- Train No. 56232 Passenger started from Bangalore City, the originating station, at 09.30 hours on 04.06.2011 as per its scheduled time. The train had an uneventful run till Kethohalli Station. It left Bidadi Station at 10.18 hours and Kethohalli halt Station at 10.28 hours and was running towards Ramanagaram Station. At about 10.31 hours, when the train was passing Km. 39/800, loco pilot noticed the lifting barrier of LC gate No. 34 in half -closed condition. An auto Rickshaw bearing registration No. KA-42-1670 entered from left hand side of the track into the LC No. 34 at Km .40/0-1 and stopped. On seeing, approaching train, three passers of auto -rickshaw jumped off. Auto -Rickshaw driver tried to back the auto -Rickshaw but before he could do so, the train reached and the front wheel of the auto -rickshaw was hit by cattle guard of the locomotive. After hitting the front portion of the auto -rickshaw, the train stopped at Km 40/300.

With the impact of the accident, the auto-rickshaw turned and became parallel to track and grazed against the first three coaches of the train. As a result, some train passengers travelling standing/sitting at doors received injuries. One auto-rickshaw traveller also got simple injury while jumping off from the auto-rickshaw on seeing the approaching train.

II CAUSE OF THE ACCIDENT

2.1 Commissiner of Railway Safety concluded that accident occurred due to not closing of LIC gate timely by gateman of LC No. 34 for safe passage of train even after giving the private number as an assurance of having done so and due to adequate care and discretion not exercised by the driver of auto-rickshaw bearing registration No. KA-42-1670 who tried to traverse the LC in face of an approaching Railway Train and a clear warning of the gates of the LC in the process of being closed for passage of the train.

2:2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.1 Remarks and recommendations made CRS and action taken by Railway are given below.

3.1 (a) **Recommendation :-** Manned non-interlocked LC gates should be provided with independent telephonic communication with the controlling stations to provide reliable and secure communication between the two. Till this is done, at least Electronic Telephone system with selective calling facility similar to RDSO Specification No. RDSO/SPNTC/51/2009 should be provided to avoid confusion in communication between the Station Master and individual LC gates.

(b) **Action by Railways :-** Ministry of Railways has issued instructions that secure communication between gateman and ASM should be provided as per RDSO specification No. RDSO SPN/TC/51/2004 in their letter no. 2009/Safety (A&R)/3/2 dated 24.09.2010. The latest specification for LC gate communication is RDSO/SPN/TC/51/2011 revision 2.0.

The specification takes care of CCRS stipulation that the gate communication has to be such that each individual is sure of whom he is communicating with. It also has the facility of recording and conferencing. The recommendation of CCRS stand already accepted as per existing instructions.

3.2 (a) **Recommendation :-** Manned non-interlocked LC gates provided with lifting barriers should have some provision of locking the boom locking lever in position, preferably a locking arrangement similar to the interlocked LC gates, so that the key released after the operation of locking lever remains in the personal custody of gate men and the gate once closed can not be opened by unauthorized persons.

(b) **Action by Railways :-** As per para 905 (2) of Indian Railway P. Way Manual, locking arrangement of lifting type barriers has been mentioned. However the arrangement for locking of boom locking lever in a manner similar to the one at interlocked gates is not desirable. But, at non-interlock gates, some arrangement for physical mechanical locking of boom locking lever should be there to check any possible outsider interference.

3.3 (a) **Recommendation :-** Railway should consider provision of a reliable Train Actuated warning System at the level crossing gates in a time bound manner to improve the safety in operation of LC gates significantly.

(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 :-** Railway should take urgent action to fill up the vacancies of Gatemen / Trackmen.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Gatemen/Trackmen having valid competency certificate for LC gate operation should only be deployed manning LC gates. Railway should train adequate number of eligible Trackmen in each gang to work as Gatemen in exigencies.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** Provisions of Section 156 of I.R. Act should be strictly enforced. Railway should launch special drive/campaign against footboard travel and, if required, should augment the load of the highly patronized passenger trains
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) **Recommendation :-** Station Working Rules and Gate Working Rules are important document containing working instructions for the field staff and should be prepared carefully to reflect the actual site conditions
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.8 (a) **Recommendation :-** Railway should arrange to counsel Station Masters of controlling stations of manned non-interlocked gates with normal position as 'Closed to Road Traffic' to arrange opening of these gates at adequate intervals for passing road traffic.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.9 (a) **Recommendation :-** Railway should identify, through joint inspections by P. way and traffic officials, those manned, non-interlocked LC gates. Where normal position of the gate is closed to road traffic' but due to the patterns of road traffic, gates are likely to be kept opened to road traffic without obtaining private number from Station Masters or kept open unauthorized after giving private number for closing. Railway should consider changing the normal position of such identified level crossing from 'Closed to Road Traffic' to 'Open to Road Traffic'.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.10 (a) **Recommendation :-** Frequent surprise inspections should be carried out both by day and night at all levels to check whether the Gatemen and the Station Masters are following the rules for working of the gate meticulously.
- (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 INTO THE INJURY TO PASSENGERS AT HATHRAS PLATFORM NO 02 BY BRAKE BLOCK OF TRAIN NO. 12439 UP RAJDHANI EXPRESS ON GHAZIABAD-TUNDLA SECTION OF ALLAHABAD DIVISION OF NORTH CENTRAL RAILWAY AT 08.24 HRS ON 20.06.2011.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** On 20.06.2011, at 08.24 hrs. Train no. 12439 Up Ranchi-New Delhi Rajdhani Express, with a load of 14 coaches, hauled by Loco No. 30036WAP-5 passed through Up main line (Platform No. 2) of Hathras station. One brake block of coach no. 15591 NR WACCN broke away flew off and hit passengers standing on platform No. 02 at Km. 1296.63 on Ghaziabad- Tundla Broad gauge double line section of Allahabad Division of North Central Railway in Mahamayanagar Distt. of Uttar Pradesh.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that accident occurred due to failure of leading brake block fitted on front trolley, left side rear wheel of coach. The iron brake cast block after failure had detached from its trolley and hit the passengers, waiting on the platform, at high speed.
- 2.2** Cause as astrablished by the Commissiner of Railway Safety was accepted by govrnment.

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 :-** A number of cases have been reported in the past where failed brake blocks have detached from trolleys and hit people or railway equipment like OHE mast at high speed. The coaches fitted with cast iron brake blocks have become like loose cannons which fire infrequently but are capable of killing unsuspecting passengers on platform or people who are present along the tracks. I am, therefore, recommending that. Indian Railway should discontinue use of cast iron brake blocks on rakes of passenger trains immediately.

- (b) **Action by Railways :-** Implemented. All ICF design EOG coaches which were earlier running with C.I. brake blocks have been modified and C.I. brake blocks are not being used.
- 3.2 (a) **Recommendation :-** Quality of all brake blocks used on rolling stock should be of a high order and proper checks should be prescribed for weeding out defective brake blocks. Any pre-mature failures should be reported to DRSO and properly investigated to take corrective measures.
- (b) **Action by Railways :-** Implemented. RDSD and Zonal Railways have been advised accordingly vide Ministry of Railways letter No. 95(C)/137/49 Vol. III dated 20.06.2011.

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON DASHING OF TRAIN NO 12555 UP GORAKHPUR HISSAR GORAKHDHAM EXPRESS WITH PRIVATE BUS AT MANNED LEVEL CROSSING NO. 141-C/3E BETWEEN DANKAUR AND AJAIBPUR STATIONS OF ALLAHABAD DIVISION OF NORTH CENTRAL RAILWAY AT 04.47 HRS ON 28.06.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- 12555 Up Gorakhadham Express train, hauled by Diesel Loco and having 24 coaches, commenced its journey from Gorakhpur station on 27.06.2011. The train stopped at Kanpur Central station at 23.20 hrs and departed at 23.35 hrs for its onward journey. It had on uneventful run upto Dankaur. The train passed through Dankaur at 04.43 hrs on 28.06.2011 During its run in block section Dankaur Ajaibpur, it dashed with a bus no. UP-14 BT-1060 at manned level crossing gate 141-C/3E at 04.47 hrs at km 1402/01 on Tundla Ghaziabedm Broad Gauge, Triple Line, Electrified Section of Allahabad Division of North Central Railway. Loco pilot and Assistant loco pilot saw the bus standing at the gate and applied emergency brake. The train could not stop and the engine hit the bus. In the collision, bus was damaged and its parts were thrown off the track. Some of its parts were dragged alongwith the train engine.

The locomotive, derailed by four wheels (L 4, 6 & R- 4, 6) and came to stop at km 1403/27.

II CAUSE OF THE ACCIDENT

2.1 Commissiner of Railway Safety concluded that accident occurred due to the result of the bus trying to cross the level crossing on the face of the approaching train, the gate having been opened earlier forcibly by the bus / conductor / cleaner by taking the lock key from the gateman after beating him and making him unconscious.

2.2 Cause as established by CRS was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

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

3.1 (a) Recommendation :- In case of accidents, DRM of the concerned division

must associate, assist, provide full assistance conducting the enquiry by the Commion of Railway safty. As in this case DRM/ALD'S approach was very casual and he behave in a very and qualitative improvement are must to improve/ensure safety.

- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** Regular drives should be launched by North Central Railway Administration to inculcate safety sense among the road users not to open the gate forcibly it may cause Severe accident and loss of life as well as National Property.
- (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 must ensure and provide security to the gateman posted at all the busy non-interlocked manned level crossing gates.
- (b) **Action by Railways :-** Prevention and detection of crime and maintenance of Law & Order over railways is the statutory responsibility of the States. Railways through the Railway Protection Force (RPF) supplements efforts of the States in strengthening security over railways. Co-ordination and liaison has been maintained at Divisional, Zonal & Railway board level with State Police/Government Railways Police (GRP) authorities to ensure security of railway property and on duty railway employees. Lists of affected sections are also exchanged with police authorities to ensure adequate police surveillance over affected sections.
- 3.4 (a) **Recommendation :-** Level crossing gate no.141-C/3E at km 1402/31-1403/01, at which this unfortunate incident occurred, should be interiocked and upgraded to 'Spl' class, with utmost urgency.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** All the level crossings on North Central Railway should be reviewed for manning/classification/up gradation etc.; in accordance with Railway Board latest instructions on the subject. The level crossings, which are busy and prone to accidents, should be tackled on priority.
- (b) **Action by Railways :-** As per Para 902 (1) of Indian Railway P. Way Manual, classification of Level Crossings are being done on the basis of the Volume of rial and road traffic and visibility conditions.

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Ministry of Railways is of the opinion that up-gradation of Level Crossings should be done accordingly and no change is required in the criteria of classification of Level Crossings.

- 3.6 (a) **Recommendation :-** Breathalyzer and blood tests of all the train crew should be undertaken immediately after the train accidents.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE COLLISION OF 66017 CHENNAI BEACH-VELLORE CANTONMENT MENU TRAIN WITH REAR-END OF 56007 ARAKKONAM-KATPADI PASSENGER TRAIN BETWEEN ARAKKONAM WEST CABIN AND CHITTERI STATIONS OF ARAKKONAM-KATPADI ELECTRIFIED DOUBLE LINE BG SECTION IN CHENNAI DIVISION OF SOUTHERN RAILWAY AT 21:23 HRS ON 13.09.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- 66017 MEMU train started from Arakkonam at 21:15 hrs (01:28 hrs late). It passed through Melpakkam. The train was on its way to Chitteri station when it collided with rear end of 56007 Passenger train at km. 74/12-14 at 21.23 hrs. Driving motor coach and 3 trailer coaches of 66017 MEMU train derailed. Front cabin of driving motor coach 13007 was smashed; leading bogie rode over bogie of mangled coach SLR 92727 of 56007 passenger.

Two rear coaches of 56007 Passenger derailed and capsized. Guard compartment of last coach SLR 92727 was crushed. Body severed from underframe and reach over UP line. Next coach tilted to right and came to rest on side, between UP and DN lines.

II CAUSE OF THE ACCIDENT

2.1 Commissioner of Railway Safety concluded that accident occurred due to 66017 MEMU train passing automatic gate stop signal no. 734 at "danger" without stopping and then proceeding at more than prescribed speed..

2.2 The cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

3.0 Remarks and Recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -

3.1 (a) Recommendation :- Railway should conduct special drives and ambush checks to ensure that loco pilots follow prescribed rules while passing automatic signals at 'danger'.

(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 :-** Date of all the signals in automatic block signalling sections should be logged.
- (b) **Action by Railways :-** Zonal Railways have been advised to provide data logger vide Ministry of Railways' letter No. 2011/Sig/A/SR/1 dated 10.10.2011 (copy enclosed). RDSO vide their letter No. STE/E/Date logger/Vol. XX dated 08.12.2011 has already issued scheme for provision of Data loggers / RTU at relay hunts for independent interlocked LC gates, IBS, Auto signalling, location boxes of RRI, etc. (copy enclose).
- 3.3 (a) **Recommendation :-** Clock of speed recorders of locomotives driving motor coaches and data loggers should be periodically synchronised with standard time.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Speed records of the trains should be checked regularly by shed incharges to detect violation of rules for passing of automatic signals at 'danger' and also that maximum permissible speed of sections are not exceeded. Violators should be disciplined.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Loco pilots should not be allowed to carry mobile phones with them while on foot plate duties. To preclude any possibility of use of mobile phones by loco pilots, suitable jammers should be provided in loco cabs which do not interfere with working of walkie talkie sets.
- (b) **Action by Railways :-** Instructions for use of CUG/Personal Mobile Phone by Loco Pilots/Asst. Loco Pilots/Motermen and Guards have been reiterated vide Telecom circular No 14/2012 dated 21.12.2012. Trials were done for use of jammers in loco and it was found that they are not suitable as they interfere with loco electronics that may endanger safety.
- 3.6 (a) **Recommendation :-** Train Protection Warning System / Auxiliary Warning System should be provided in automatic signalling sections for safe working of trains in case loco pilots ignore signal aspects.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY UNUSUAL INCIDENCE OF FATALITIES AMONGST AND INJURIES TO PASSENGERS OF TRAIN NO 14864 JODHPUR-VARANASI MARUDHAR EXPRESS BETWEEN KHATIPURA AND KANAUTA STATIONS OF JAIPUR DIVISION OF NORTH WESTERN RAILWAY ON 11.10.2011.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** Train No 14964, Jodhpur-Varanasi Marudhar Express hauled by WDM4 class of locomotives with 21 coaches left Jaipur station at 15.40 hrs. Gate keeper of LC No. 209, was informed by a motor biker about persons lying near the line. 3 passengers had fallen down from the train at Km 220/3-4.

SM/Kanauta informed 108 for ambulance help and Control for taking further action.

Ambulance arrived at site at 16.55 hrs. 3 dead/grievously injured passengers were taken to SMS Govt. Hospital, Jaipur. They were declared dead on arrival.

Incident of passengers falling down did not come to the notice of any crew of the train. Train continued on its journey ahead. When the train left Dausa station, SM/Dausa came to know that 5 passengers had alighted at Dausa and they had been injured during the journey.

The Train on arrival at Bandikui, was checked by C & W staff. It was found that foot boards of two coaches were bent and damaged.

II CAUSE OF THE ACCIDENT & RESPONSIBILITY

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to infringement to the movement of train by tractor trolley.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** The remarks and recommendations made by Commissioner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Locations where road vehicles are plying/likely to ply closer to track should be identified and protected by providing Rail

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barricading/ fencing/walling/trenching as per site conditions.

- (b) **Action by Railways :-** Necessary instructions have been issued to all zonal Railways in this regard vide Board's letter No. 2011/CE-II/PRA/1/17 (CRS) dated 27.08.2013.
- 3.2 (a) **Recommendation :-** SR should be imposed at locations, where Railway Administration is unable to maintain the structure erected to prevent trespass.
- (b) **Action by Railways :-** Necessary instructions have been issued to all zonal Railways in this regard vide Board's letter No. 2011/CE-II/PRA/1/17 (CRS) dated 27.08.2013.
- 3.3 (a) **Recommendation :-** Railway Administration should sanction required number of regular posts of Permanent Way Gangs for maintenance of line.
- (b) **Action by Railways :-** General Managers are empowered to create posts for New Assets / New organization. Dispensation has also been given to DRMs to create safety and operational posts on 1 : 1 basis for new assets with the approval of General Managers.

Orders regarding Standing Instructions - Organizing the resources for Track Maintenance Activities on Indian Railways were issued to all zonal Railways vide Ministry of Railways letter No 2011/CEDO/SR/15/O/Vol.I dated 16.12.2013.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE UNUSUAL INCIDENCE OF DASHING OF WELL BORING MACHINE WITH TRAIN NO.04044 BIKANER-DELHI EXPRESS BETWEEN BENISAR AND SRI DUNGARGARH STATIONS OF BIKANER-RATANGARH B.G. NON-ELECTRIFIED SINGLE LINE SECTION OF BIKANER DIVISION OF NORTH WESTERN RAILWAY ON 17.10.2011.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** 04044 Bikaner-Delhi Express train left Bikaner station at 15.20 hours. Right side of some coaches of the train were hit and scratched by infringing object between Benihar and Sri Dungargarh stations.

The train was stopped after the incidence at km 390/3-2 (Guard's coach) due to ACP. Loco pilot of the train sent Assistant loco pilot in rear of the train to set right the ACP.

On stoppage of the train guard of the train went to coach no. 06509, from where chain had been pulled. Some Passengers told him that one passenger had got injured in head and was lying on the floor. After resetting the ACP Guard tendered first aid to the injured passenger and informed SS Sri Dungargarh on walki-talki about the incidence, Dy. Controller/Punctulaty and Chief Controller /General were informed on mobile phone. A doctor travelling in the train attended injured passengers.

On resetting of ACP and after exchanging all right signal with Guard, train was taken ahead to Sri Dungargarh station.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to infringement to the movement of train caused by well boring machine driver.
- 2.2** Cause as established by Commissiner of Railway Safety 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 :-** Railway should take action, in consultation with State Authorities to settle the matter of level crossings in Bikaner-Ratangarh section to eliminate risk to trains and public due to unauthorized crossings.

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- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** Railway should identify the locations where trespassing was likely. Rail barricading should be provided at such locations to prevent trespassing.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** SR should be imposed at locations, where Railway Administration is unable to maintain structures erected to prevent trespass.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY INTO ACCIDENT OF HITTING S-10 COACH OF 16529 DN UDYAN EXPRESS BY "REMOVABLE DOOR OF HIGH TENSION COMPARTMENT" OF MOTOR COACH OF EMU, A-16 UP ABH-CSTM FAST LOCAL TRAIN AT KM. 27/6-7 BETWEEN BHANDUP AND NAHUR STATIONS OF MUMBAI CST -KALYAN ELECTRIFIED BG MULTIPLE LINES SECTION OF MUMBAI DIVISION OF CENTRAL RAILWAY AT ABOUT 08.42 HRS ON 21.11.2011.

I. PREAMBLE

- 1.1 **THE ACCIDENT :-** On 21.11.2011 at about 08.42 hrs, A-16 UP ABH-CSTM fast local train left Thane at 8.36 hrs, while on run on UP line in Bhandup-Nahur section, left side 'removable door of High tension compartment' of motor coach No. 2159B, 5th from driving coach worked out and hit on right side of the coach NO. S 10, 16529 DN CSTM-SBC Udyan Express on run on DN line at km 27/6-7, resulting in grievous injuries to two passengers and simple injury to one passenger, travelling in S-10 coach of 16529 DN Udyan Express.

16529 Udyan Express was stopped at Thane due to Alarm Chain Pulling by passengers. Two grievously injured passengers were detrained and sent to Civil hospital, Thane. Third passenger who had sustained simple injury was given first aid and allowed to continue journey.

II CAUSE OF THE ACCIDENT

- 2.1 Commissioner of Railway Safety concluded that the accident occurred due to defective design of connection of removable door of HT compartment of Motor Coach by ICF, Chennai.
- 2.2 Cause as established by the Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 The remarks and recommendations made by CRS & action taken by Railways are given below -
- 3.1 (a) **Recommendation :-** 'Removable door of HT compartment' of motor coach no. 2159B of A-16 fast local, after hitting coaches of Udyam Express fell down at km 27/6-7 between Up through and DN through lines. Keyman,

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- who was working nearby took prompt action and with the help of trackman and farmer shifted damaged 'removable door of HT compartment' to safer place on cess side of down slow line.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** ICF/Chennai should redesign connection of removable door of HT compartment. Aluminum removable door of HT compartment should be replaced with 'Corten steel' (same as material of shell) and it should be welded.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** Any changes made in shell of coach should be done with the approval of design and drawing by ICF Chennai/RDSO.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** There is no system of issuing 'Fit to run certificate' and 'Brake Power certificate' to EMU rakes by JE/SE. System of issuing 'Fit to run certificate' and 'Brake Power certificate' by JE/SE at the time of trip inspection schedule (10 days schedule) shall be introduced for EMU rakes (similar to that being followed for 'long distance trains' by Mechanical Department). Validity of this certificate may be 5/10 days.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Till connection of removable door of HTC is made welded connection, instructions for inspection/checking/maintenance of connections of removable door of HT compartment of EMU motor coach in IA Schedule (45 days schedules), TI schedule (10 days schedule) and dialy schedule should be issued from HQ.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE INCIDENT OF FIRE IN TWO AC 3 TIER COACHES OF 13009 UP HOWRAH DEHRADUN EXPRESS BETWEEN NIMIAGHAT AND PARASNATH STATIONS ON GRAND CHORD SECTION OF DHANBAD DIVISION OF EAST CENTRAL RAILWAY AT 2.35 HRS ON 22.11.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- 13009 Up Howrah Dehradun Express comprising of 19 coaches and hauled by Electric Loco both left Netaji Subhas Chandra Bose Gomoh Jn at 2.20 hrs on 22.11.2011 after its schedule stoppage. Burning smell was noticed by AC coach attendant (ACCA) and AC coach Incharge (ACCI) who were sitting on coach attendant's seat in the doorway passage of Delhi end of AC 3 tier coach. When they went inside the coach, they found that cabin 3 of the coach was filled with smoke. Some passengers had also got up by then and there was hue and cry about the fire in the coach. Somebody had operated Alarm chain apparatus and the train stopped. Most of the passengers escaped through the adjoining AC 3 Tier coach (B2). Vestibule of other side not open. Guard and assistant loco pilot tried to separate this coach by decoupling the Howrah end screw coupling coach but it could not be done due to intense heat and flame. They opened out Howrah end coupling of the adjoining coach B2 and front portion was taken ahead by a distance of about 100 meter. Thereafter, they decoupled the Delhi end screw coupling of the affect coach and moved ahead leaving behind two coaches. Fire could be extinguished by Fire Brigade teams.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that the accident occurred due to throwing of lighted cigarette butt inside the Coach.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** The remarks and recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Escorting train staff must respond to incident of smoke / fire in coaching train promptly and effectively. A proper training module and periodical drill in this regard are considered essential.

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- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** Railway should launch an immediate drive to review implementation status of extant guidelines on fire prevention in a coaching train. Such exercises must periodically be redone.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** Surprise checks should also be done of luggage/ materials carried by passengers in view to identify articles which may intentionally or accidentally cause fire.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** The spread of fire was reportedly through curtains and it was rapid. It caused emission of huge smoke also. Quality of curtains in regard to their fire retardant characteristics should be urgently evaluated.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Sluggish evacuation of passengers on learning about the fire/smoke inside the coach was one of the bottlenecks. Feasibility of swing Glass doors which are presently opening inside and cause hindrances in moving out to be opened outward may be looked into and necessary action taken.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** Fire retardency characteristics of materials in use in coaches are still not up to the expectation. It has been noted that in most of the fire cases in train, the coach gets completely gutted. There is an imperative need to upgrade the materials in this regard at per with international standard.
- (b) **Action by Railways :-**The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) **Recommendation :-** Fire fighting training to railway staff specifically train escorting staff needs to be put on sound footing. Periodical 'hands on' on use of Fire Extinguisher is recommended.
- (b) **Action by Railways :-** The position has been explained by the Railway

Administration to the satisfaction of the Commission.

- 3.8 (a) **Recommendation :-** A passenger awareness drive should be launched to reiterate danger of throwing lighted butt of cigarette/bidi inside a coach. Such drive should be repeated at regular interval.
- (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 DERAILMENT OF 74631 UP PASSENGER TRAIN AT KM 11/0-1 AT SADURA RAIWAY STATION ON QUZIGUND BARAMULLA, BORAD GAUGE, SINGLE NON-ELECTRIFIED LINE OF FIROZPUR DIVISION OF NORTHERN RAILWAY AT 12.10 HRS ON 23.11.2011.

I. PREAMBLE

1.1 THE ACCIDENT :- Train no. 74631 Up passenger commenced its journey from Qazigund station at 11.40 hrs with an extra detention of 15 minutes at Qazigund due to brake pressure problem on 23.11.2011. After starting from Qazigund, the loco pilot of the train observed the caution of Stop Dead and 10 kmph at km 01/2-4 between Qazigund and Sadura railway stations. The train again stopped at km 6/1 on a falling gradient of 1 in 100 by the loco pilot when the guard of the train reported smoke and smell in coach No. 11519 TC. Thereafter the train started and went out of control. SM/SDUA heard on walkie-talkie for making main line for the train as there was some problem with brake pressure. Uncontrolled train overshot the stop signal at a speed of about 54 kmph, dashed and broke the Dead end of over-run line at Baramulla end of line no. 3 (loop) and derailed on bank slope towards the left side.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that the accident occurred due to overshoot of the stop signal by the uncontrolled train which dashed and broke the dead end of over-run line at Baramulla end of line no. 3 (loop) and travelled down on bank slope leftwards & capsized/rested/slopping and then stopped.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** The remarks and recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** In case of accidents, Railway administration must inform the Commissioner of Railway Safety about the details of the accident including the casualties promptly and expeditiously. As in this case, it took 05 days to inform about the grievous nature of injuries to the passengers, though the Railway Administraion was aware of grievous injury to one passenger on the day of the accident itself.

- (b) **Action by Railways :-** Necessary instructions have been issued to all zonal Railways vide Board's letter No. 2013//Safety (A & R)/19/9 dated 09.09.2013 to ensure that the details of the accident including the casualties are reported promptly and expeditiously to the Commissioner of Railway Safety concerned, Chief Commissioner of Railway Safety and Railway Board.
- 3.2 (a) **Recommendation :-** A full-fledged ART (with 140t/160t crane having telescopic boom) & a self-propelled ARME at Budgam should be provided for speedy relief and quicker restoration.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** Loco Pilots and Loco Inspectors should be permanently posted on Qazigund-Baramulla section instead of sending them for 15-20 days as is presently being done.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Action should be taken to improve general safety awareness and consciousness among the railway officials including the train crew. For this regular drive should be launched by Northern Railway administration.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.5 (a) **Recommendation :-** Adequate arrangements should be made by Railway Administration for proper examination and maintenance of DEMUs at Budgam shed.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** Breathalyzer and Blood test of all the train crew should be undertaken immediately after the train accidents.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.7 (a) **Recommendation :-** Intensive checks and monitoring of all the loco pilots and guard of the train on Northern Railway should be undertaken for their alertness. For this regular drives should be launched by Northern Railway Administration.
- (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 TRUCK WITH TRAIN NO 54704, JODHPUR-ABOHAR PASSENGER AT UNMANNED LEVEL CROSSING NO. 161/C AT KM. 612/1-2 BETWEEN JODHPUR CANTT. AND BANAR STATIONS OF JODHPUR-MERTA ROAD BG SINGLE LINE NON-ELECTRIFIED SECTION OF JODHPUR DIVISION OF NORTH WESTERN RAILWAY AT 14.42 HRS ON 23.12.2011.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** Train No. 54704, Jodhpur - Abohar passenger started from Jodhpur station at 14.15 hours of 23.12.2011. The train passed Jodhpur Cantt. station at 14.35 hours. After travelling further about 4.5 kms from Jodhpur Cantt. station, the train dashed with Truck No. RJ 14 GA 3445 at unmanned level crossing No. 161/C at km 612/1-2 at 14.42 hours.

The train stopped after further travelling by about 350m. Loco Pilot, of the train informed the reason for stoppage to the guard on walkie-talkie. SM/Banar came to know of the accident through VHF set 14.47 hours and conveyed the information to Control and also to SS/Banar, who left for site by road vehicle.

Road Ambulance reached the site of accident at 15.15 hours and injured persons were taken to MDM Hospital, Jodhpur.

In the accident leading trolley of 2nd coach from engine got derailed.

II CAUSE OF THE ACCIDENT

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

III. REMARKS AND RECOMMENDATIONS

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

- 3.1 (a) Recommendation :-** Existing instructions are adequate to safeguard against such incidences. Accident was caused by individual's failures in following prescribed provision of the Motor Vehicles Act.

No new instruction in the matter is considered necessary.

- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY INTO THE HEAD ON COLLISION OF 31536 DN SHANTIPUR-SEALDAH EMU PASSENGER TRAIN WITH 31531 UP SEALDAH-SHANTIPUR EMU PASSENGER TRAIN STANDING ON PLATFORM 2 OF PHULIA STATION OF SEALDAH DIVISION OF EASTERN RAILWAY ON 07.01.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** On 7.01.2012 Train no. 31531 UP Sealdah-Shantipur passenger comprising of 9 EMU coaches was received on platform no 2 of Phulia station. It came to stop at 19.54 hrs. 31536 Dn Shantipur-Sealdah passenger train also comprising of 9 EMU coaches, coming from opposite direction had been granted line clear by Phulia station. This train came Phulia station passing home signal, in red condition, and collided with 31531 Up head on at about 19.58 hrs. As a result, driving cabs of both the trains got badly damaged. While the driver of the Up train jumped off before the collision, that of Dn train was entrapped in his cab and was injured. 2nd and 3rd coaches of Up train got derailed by all wheels due to impact of collision, and 3rd coach of the Dn train derailed by front 04 wheels.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to disregard of red aspect of Dn Home signal by driver of 31536 Dn at high speed.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks and recommendations made by Commissioner of Railway Safety & action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Loop lines at station should invariably be provided with sand hump/overrun line so as the line is isolated from the adjoining line during receipt of a train and head on collision due to inadvertent overshooting of signals by the train is avoided. Railway shall urgently make a review in this regard and plan necessary action giving priority to suburban single line section.
- (b) Action by Railways :-** The position has been explained by the Railway

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Administration to the satisfaction of the Commission.

3.2 (a) **Recommendation :-** During the construction of new line/gauge conversion/doubling, railway has not been providing prescribed layout of stations as per Rly Board's letters no 92/PL.14/1-WR dated 06.11.2001 and 11.11.2005 in all the cases on one plea or other viz non availability of adequate land/fund constraints etc. This results in compromise in safety in train operation. Railway should invariably plan for the prescribed layout at stations in all the new project.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.3 (a) **Recommendation :-** Train Protection Warning System (TPWS) is getting sanctioned in a big way. Its early installation and commissioning at all the vulnerable stations should be ensured on priority.

(b) **Action by Railways :-** Based on the experience of the two pilot projects of TPWS on Southern Railway & North Central Railway, TPWS works have been sanctioned at a cost of 1768 crore covering 3397 Route Kilometers over 8 Zonal Railway viz Central, Eastern, Northern, North Central, Southern, South Eastern, South Central and Western Railways covering Automatic Block Signaling (ABS) sections of Indian Railways. Following works have been included for ER :-

i) Sealdah - Howrah - Khana & Automatic sections of SDAH & HWH Divisions - TPWS (326 RKM).

ii) Howrah & Sealdah Divisions - TPWS on balance automatic Signalling & important EMU routes (327 RKM)

These works shall be taken up progressively for implementation in a phased manner as per availability of funds.

Also, TPWS has been commissioned on all AC rakes on Metro Railway, Kolkata.

3.4 (a) **Recommendation :-** An early installation/commissioning of Anti Collision Device (ACD) in railway system should also be considered as a measure of safeguard against such collision.

(b) **Action by Railways :-** Anti Collision Device (ACD) was taken up as a pilot project on single/double line non-electrified Broad Gauge section and was first introduced on Northeast Frontier Railway (NFR) in Katihar - New Jalpaiguri - Guwahati - Lumbding - Tinsukia - Dibrugarh - Ledo route in June 2007 covering 1736 Route Kms.

Train Protection & Warning System (TPWS) :

Based on the experience of the NFR, to improve reliability and dependability of ACDs and to test its functioning on multiple lines as well as electrified route, the specifications and design configuration were revised.

Operational & technical problems like large number of unwarranted brakings requirement of large number of repeaters prone to failures, problem of fouling protection, collision like situations due to failure of communication, generation of wrong messages / junk data etc have been experienced in Southern Railway trails which are being resolved.

KRCL has now developed an improved ACD version 1.1.2 which was deployed on Tinsukia Division on NFR. Based on performance evaluation jointly by RDSO, KBCL and NFR, its deployment on other four divisions was also taken up and is nearly completed (98% completed).

Train Collision Avoidance System (TCAS) :-

To overcome the problems experienced in ACD to its dependence on GPS and deviation theory, Indian Railways have now taken up indigenous development to TCAS for deployment on sections having Absolute Block System. TCAS shall be fusion of functionalities of TPWS and ACD and shall prevent Signal passing at Danger & Collisions. Concept field trial of system developed by one manufacturer was successfully demonstrated in Tandur -Nawandgi section, South Central Railway in October, 2012. Based on the same, extended field trails have been planned and contract has been awarded by RDSO for conducting extensive field trials on 240 kms section of South Central Railway. Initial rounds of field trails have been undertaken in Jan./Feb. 14 with 5 on-broad equipments and two block sections and were successful in demonstrating interoperability and functionality of TCAS in prevention of signal passing at danger and collision. After safety assessment, validation and conclusion of extended field trails successfully, further deployment on Absolute Block Signalling System of Indian Railways shall be considered.

- 3.5 (a) **Recommendation :-** In EMU/MEMU trains where single driver work the train, only those drivers shall be deployed who have been found suitable in psychological aptitude test.
- (b) **Action by Railways :-** Noted.
- 3.6 (a) **Recommendation :-** Railway should consider installation of suitable imaging device/video camera in cabs EMU/MEMU trains to capture aspect of signals that provides reference like a black box.
- (b) **Action by Railways :-** Railways have planned to provide TPWS in EMU

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train which apart from protection against SPAD will also share the aspect of the signal passed and such data can easily be downloaded. In addition to the above, signal data logger are available on some Railways, Provision of video camera in thus not required in EMUs.

- 3.7 (a) **Recommendation :-** A periodic drive mandatorily monitored at the level of ADRM should be put in place by deputing officers/inspectors on foot plate to check alertness/attentiveness of drivers during run, especially of motorman working EMU trains in single line section.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE COLLISION OF 55805 UP NEW BONGAIGAON-GUWAHATI CHILARAI PASSENGER WITH AN EXCAVATOR CUM LOADER (JCB) AT 'C' CLASS UNMANNED LEVEL CROSSING GATE NO NN 267 BETWEEN MIRZA AND AZARA STATIONS OF RANGIYA DIVISION OF NORTHEAST FRONTIER RAILWAY ON 03.02.2012.

I. PREAMBLE

- 1.1 **THE ACCIDENT** :- On 03.02.2012, 55805 Up New Bongaigaon-Guwahati Chilarai Passenger was on its run between Mirza & Azara stations. The train collided with Excavator Cum Loader (JCB) at unmanned level crossing No. NN-267 at km 155/83. As a result of collision, Excavator Cum Loader was thrown sideways down the embankment to the right. Locomotive of the train and leading nine coaches got derailed.

II. CAUSE OF THE ACCIDENT

- 2.1 Commissioner 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 Excavator cum Loader 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 Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

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

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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 :-** Instructions contained in Boards No. 2010/Safety (A & R) /19/8 dated 14.05.2010 and S.R. 4.50/3 issued by the Railway need to be suitably amended so as to ensure safety of train operation effectively at unguarded rail-road crossings.

(b) **Action by Railways :-** Not accepted.
The issue concerns item 9 of SR under GR 4.50 (engine whistle code while approaching and passing through a level crossing). The whistle codes for all Zonal Railways are identical for uniform application across IR. Hitherto, whistle code while approaching and passing through level crossings was one continuous long whistle. On a reference from the Zonal Railway, this whistle code was modified as long intermittent whistles with the approval of Board (MT). Accordingly, instructions have been issued vide Board's letter No. 2010/Safety (A &R)/19/8 dated 14.05.21010.

Intermittent whistling is likely to attract attention of the road users better than a continuous whistle.

Further, it is to point out that whistle codes (while approaching and passing through a level crossing) on some other railways world over are as under:-

U.K.	Two long One short One long
Finland	One long One short
USA	Two long One short One long

Continuous whistling at level crossings also leads to blowing the whistle for prolonged durations, causing health hazards to the Loco Pilot and Assistant Loco Pilot. Intermittent whistling at level crossings may give some respite to Loco Pilots, without hampering safety. This will also lead to better compliance of whistling by the Loco Pilot as compared to continuous long whistle. Thus, the whistle code was modified after weighing pros and cons of the change.

In view of above, this recommendation is not accepted.

3.4 (a) **Recommendation :-** Existing coverage of Passenger and Goods trains on NF Railway with Anti Collision Device (ACD) to the tune of only 33% is far from being adequate for ensuring safety of train operation. Deficiency in coverage need to be addressed.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.5 (a) **Recommendation :-** Existing coverage of 56 (fifty six) unguarded LC Gates with audio visual device out of a total of 9937 such LC Gates on NF Railway to the tune of meager 6% is far from being adequate for ensuring safety of train operation. Deficiency in coverage need to be addressed.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.6 (a) **Recommendation :-** Elimination or manning of all unguarded level crossings by March 2015, in accordance with the detailed policy instructions contained in Board's No. 2006/CE-IV/LX/WP/1 dated 9.01.2012 shall be ensured.
- (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 need for providing prompt succor to the injured passengers in emergencies, norms for manning coaches contained in the Commercial Circular No.18 of 2000 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.
- 3.8 (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.

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THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE UNUSUAL OCCURRENCE OF DASHING OF TRUCK WITH TRAIN NO. 12656 NAVJEEVAN EXPRESS AT KM. 441/20-22 BETWEEN KANJARI BORIVAVI JN. AND UTARSANDA STATIONS OF VADODARA -NADIAD BG DOUBLE LINE ELECTRIFIED SECTION OF VADODARA DIVISION OF WESTERN RAILWAY AT ABOUT 18.18 HOURS OF 22.02.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** Train No. 12656, Navjeevan Express started from Anand station at 18.07 hours of 22.02.2012. The train passed through Kanjari Boriyavi station at 18.13 hours. After travelling further about 2.8 kms from Kanjari Boriyavi Jn., it dashed with truck No. GJ-20-T-4129 at km 441/20-22.

The train stopped after further travelling by about 300 metres after dashing at km 441/30. Loco Pilot informed the guard on walkie-talkie that one truck has hit the train. Guard conveyed the message of incidence to Dy. SS/Utarsanda, Control, RPF and GRP staff.

Guard walked ahead examining the train and found that somefew passengers had been injured and asked for help from 108 ambulance.

108 Ambulance reached the site of accidents at about 18.45 hours. 3 injured passengers were taken to Civil Hospital, Nadiad from site. 7 passengers were brought to Nadiad station by the same train and then shifted to Civil Hospital, Nadiad and another hospital.

The train left for its onward journey from Nadiad at 19.40 hours.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to infringement to the movement of the train, caused by truck.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks and recommendations made by Commissioner of Railway Safety & action taken by Railway are given below -

- 3.1 (a) **Recommendation :-** Stipulations made in Chief Engineer's Circular No. 6, should be made applicable in the supply/scrap sale contracts of stores departments wherein protection of train from road vehicles moving by the side of track is necessary.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** Safety instructions on safety at work site should be made applicable to the supply/scrap sale contracts where protection of train from road vehicles moving by the side of track is necessary.
- (b) **Action by Railways :-** Necessary instructions have already been issued to PCEs/CAO(C)s/All Indian Railways vide Board's letter No. 2003/CE-II/Safety Misc./3 dated 02.05.2013.

ACCIDENT- (xxii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON DERAILMENT OF 12138 DN PUNJAB MAIL AT KM 54/3-4 BETWEEN KHARWAR ADN SAMPLA RAILWAY STATIONS ON BATHINDA-SHAKURBASTI SECTION, BROAD GAUGE, DOUBLE LINE, ELECTRIFIED SECTION OF DELHI DIVISION OF NORTHERN RAILWAY AT 03.50 HRS ON 06.05.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** Train no 12138 Dn Punjab Mail, commenced its journey from Firozpur station on 05.05.2012. The train stopped at Rohtak station at 03.28 hrs and departed at 03.30 hrs for its onward journey. The train passed through Kharwar station at 03.44 hrs. While the train was on the run in the block section between Kharwar-Sampla, rearmost 08 coaches of the train derailed at km 54/3-4 at 03.50 hrs. Out of derailed 8 coaches, capsized. Both, Up & Dn main lines were blocked.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to fracture/breakage of rail.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks and recommendations made by Commissioner of Railway Safety & 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 train operating staff, train crew. For this regular drives should be launched by Northern 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 :-** Railway Administration should issue detailed instructions as to the procedure to be followed by all concerned engineering/operating/mechanical etc. Officials in case a jerk/heavy jerk is reported by a loco pilot.

- (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 ensure in posting of suitable and competent staff only to work as MTS at the control offices who was supposed to deal and interact with the controllers, supervisors and at times with officers as well.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Railway Administration must take adequate steps in filling up of all the vacancies in safety categories in a time bound manner. There is severe shortage of manpower in safety categories over Delhi Division. Such staff shortage on the existing sanctions adversely hampers the maintenance of assets affecting safety.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xxiii)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON BUMPING OF LOCOMOTIVE WDM 3D IN COURSE OF SHUNTING AND ATTACHMENT WITH THE RAKE OF 55535 UP KATIHAR BARAUNI DARBHANGA PASSENGER ON LINE NO. 15 DARBHANGA ADJACENT TO PF 7 AT KATIHAR STATION OF KATIHAR DIVISION OF NORTHEAST FRONTER RAILWAY ON 18.06.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** On 18.06.2012, 55532 Dn Barauni-Katihar Passenger was received on line No 15 adjacent to PF 7 on arrival at Katihar at about 1015 hours and it was to return at 1220 hours as 55535 Up. The train was programmed to be hauled by Locomotive No. WDM_{3D} 11283 which had hauled Dn train.

The Loco WDM_{3D} 11283 was handed over to Loco Shunter for detachment from one end and attachment on the other end for up train. The Loco dashed with the rake when it approached for attachment to the train.

The rake moved back before coming to a stop. Loco and rake stood apart at a distance of 40 m in final disposition.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that the accident occurred due to an act of gross negligence on the part of the On Duty Shunter Pilot while performing shunting operation.
- 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 & action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Effective implementation of Revise Policy on Drunkenness on Duty needs to be ensured by the Railway.
- (b) Action by Railways :-** The position has been explained by the Railway Adminstration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON DASHING OF TRAIN NO. 14520 DN KISSAN EXPRESS WITH TRUCK (OIL TANKER) AT UNMANNED LEVEL CROSSING GATE NO. 33-C BETWEEN SAMPLA AND ASAUDAH STATIONS ON BATHINDA-SAKURBASTI, BOARD GAUGE, DOUBLE LINE, ELECTRIFIED SECTION OF DELHI DIVISION OF NORTHERN RAILWAY AT 13.14 HRS ON 30.07.2012.

I. PREAMBLE

- 1.1 **THE ACCIDENT** :-Train no. 14520 Dn Kissan express, commenced its journey from Bhiwani station at 11.25 hrs on 30.07.2012. The train had an uneventful run upto Sampla station. When the train was on the run in the block section between Sampla and Asaudah stations, it collided with an oil tanker at unmanned level crossing No. 33C. In the collision, the truck was damaged and its parts got entangled in the train engine, the engine got derailed. The train stopped at distance of about 590m from the place of the collision. Due to derailment and dragging of engine, track was damaged in a length of about 515m.

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 (oil tankder).
- 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 & action taken by Railways are given below -
- 3.1 (a) **Recommendation** :- In view of increasing trend of accidnets at unmanned level crossings, regular safety drives should be launched by the Railway Administration for the inspection and counseling of road users on unmanned level crossings. Driver of trucks, tractor trolleys etc. should also be checked for their knowledge regarding provision of Section 131 of Motor Vehicles Act 1988 and counseled.
- (b) **Action by Railways** :- The position has been explained by the Railway Adminstration to the satisfaction of the Commission.

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- 3.2 (a) **Recommendation :-** The already sanctioned work of manning of this level crossing gate no 33-C be completed at the earliest.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** All the level crossings on Northern Railway should be reviewed for manning/classification/up gradation etc. within next one month, in accordance with Railway Board's latest instructions on the subject. The level crossings, which are busy and prone to accidents, should be tackled on priority.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Northern Railway administration must take adequate steps in filling up of all the vacancies in safety categories in a time bound manner. There is severe shortage of manpower in safety categories over Delhi Division. Such staff shortage on the existing sanctions adversely hampers the maintenance of assets affecting safety.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DASHING OF TRAIN NO. ME/NBOX(E)/SPL WITH ROAD TRACTOR AT MANNED LC GATE NO. KA-80 BETWEEN BANKURA AND ONDAGRAM STATIONS OF ADRA DIVISION OF SOUTH EASTERN RAILWAY ON 02.09.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** On 02.09.2012, a Down Goods Train No. ME/NBOX(E)/ Spl passed through Bankura (previous station) station at 1036 hours. In its run to Ondagram, the train collided with a tractor at the manned Level Crossing gate No. KA-80.

In collision, the tractor was totally damaged and the broken parts were thrown on to both Up and DN lines. DN line was obstructed by the trailer of the tractor and Up line was obstructed by broken pieces of engine of tractor. The damaged tractor as well as its broken parts which were obstructing Up and DN line were removed and lines were certified fit for running of rail traffic at 1150 hours (DN line) and at 1225 hours (UP line) on the same day.

II CAUSE OF THE ACCIDENT

- 2.1** Commissioner of Railway Safety concluded that the accident occurred due to failure of on duty SM/Ondagram to advise the on duty gate keeper of Manned Level crossing gate No. KA-80 regarding the movement of the train and obtaining assurance of gate being closed before granting line clear to Bankura, leading to the LC gate being kept open to road traffic during the passage of the train.
- 2.2** Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0** Remarks and recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Railway must provide "LC gate Telephone System with voice Logger" as RDSO specification No. RDSO/SPN/TC/51/2011 (REV 2.0) at Ondagram and Bankura stations.
- (b) Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) Recommendation :-** Railways must immediately launch a drive to check

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the wrong procedures/practices (including acts of omission and commission) being adopted by frontline staff (i.e. SM & GK) with regard to system of work and exchange of private No.

Railways should also conduct extensive check to identify existence of any contradiction in the provision of SWR, GWR and actual practices being followed in the field and take appropriate action to remove all contradictions and ensure strict copliance of rules/correct procedures.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.3 (a) **Recommendation :-** Railways must also review the working of all manned LC gates' with regard to its normal position i.e. "Closed to Road Traffic" and "Open to Road Traffic" in line with the latest directives of the Railway Board issued vide letter No. 2006/CE-IV/LX/WP dated 02.05.2013 and in consideration of the local conditions.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.4 (a) **Recommendation :-** Railways should enforce fixing of "Red banner flag" in day and "Red light" in night across the triack at all manned LC gates by the gate keeper when the gate is kept open to road traffic as per the provision of GWR. The above provision being universally applicable for all manned gates must be made into a subsidiary rule of the Railways.

Railways should also plan for providing "automatic banneer flag mechanism" in the lifting barriers at manned LC gates as already being introduced in many other Railways.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.5 (a) **Recommendation :-** Railways should immediately undertake infrastructural improvement works at LC gate KA-80 and ensure all parameters and facilities as per provision of IRPWM.

(b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.

3.6 (a) **Recommendation :-** SM of the controlling stations and the Gate Keepers of the manned LC gates being controlled from the station, should be given "one day training on "acquaintance / acclimatization" both at the LC gates as well as the controlling stations respectively for imporving their understanding/familiarity and skill for effective harmonious working.

(b) **Action by Railways :-** The position has been explained by the Railway

Administration to the satisfaction of the Commission.

- 3.7 (a) **Recommendation** :- Railway should prepare a master plan for improving the infrastructure at LC gate as prescribed in IRPWW and recent guidelines of Railway Board.

Additional Innovative Technological aids such as the following need to be considered for provision -

- * Retro reflective warning boards.
- * Zebra Marks and road signage lights.
- * Train approach warning system.
- * Hooter with high decibel sound and flashing light.

Railways must also explore the technical feasibility of providing some indication of the actual status of LC gate boom (Open/Close) to the SM through existing communication cable.

- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.8 (a) **Recommendation** :- Railways must introduce a system of 'Joint Inspection' of LC gates to periodically check the infrastructure facilities, working system etc, once in six months.

Railways should review the status and condition of all manned LCs including their TVU and plan for necessary up gradation.

- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of the Commission.

- 3.9 (a) **Recommendation** :- Railways must consider bringing changes in present classification of all manned LC gates system of working/status and combining both the systems to have one unified system of working i.e., "open to Road Traffic" and thereby remove all confusions and contradictions in the practical working.

- (b) **Action by Railways** :- Noted.

- 3.10 (a) **Recommendation** :- Railway should conduct "JOB analysis" of all SMs and take suitable steps to relieve them from non-operational/commercial (sale of tickets, parcel booking etc.) duties. Maximum number of LC gates that could be controlled from a station must be legislated taking into account all the relevant factors.

- (b) **Action by Railways** :- The position has been explained by the Railway Administration to the satisfaction of the Commission.

ACCIDENT- (xxvi)

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON DERAILMENT OF 13226 UP DANAPUR JAYNAGAR INTERCITY EXPRESS IN BACHHWARA STATION YARD OF SONPUR DIVISION OF EAST CENTRAL RAILWAY ON 12.09.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** Train no. 13226 Up Danapur Jaynagar Intercity Express arrived Bachhwara station on line no. 4 (Up loop) on 12.09.2013. Signal for departure of the train was cleared. The train started from Bachhwara, Real trolley of the last coach of train took wrong route on Point no 23 and got derailed. Coach body two OHE masts cross pull due to derailment of the rear trolley and obstruction encountered by the moving coach caused derailment of front trolley as well and entanglement of front buffers of the GSLR coach with adjoining coach. Passengers sitting in left side of the coach got hurt on hands and fingers causing grievous injury to 4 of them.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that the accident occurred two route due to manipulation of point while the train was on run .
- 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 and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** Opening/cloing of Relay Room door at the station must be proven in the Date logger by providing suitable Door Closing Switch.
- (b) Action by Railways :-** The position has been explained by the Railway Adminstration to the satisfaction of the Commission.
- 3.2 (a) Recommendation :-** A drived should periodically be undertaken by deploying officers/inspectors of the division as well as headquarters to reiterate safety consciousness amongst all the train passing staff and maintenance staff involved in maintenance of safety related assets with particular emphasis that short cut method in working must not be restored in any circumstances.
- (b) Action by Railways :-** The position has been explained by the Railway Adminstration to the satisfaction of the Commission.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY ON THE DERAILMENT OF 51420 HUBLI -MIRAJ PASSENGER BETWEEN SULEBHAVI AND SULDHAL STATINS ON LONDA-MIRAJ NON ELECTRIFIED SINGLE LINE BG SECTION IN HUBLI DIVISION OF SOUTH WESTERN RAILWAY AT ABOUT 17.26 HRS ON 01.10.2012.

I. PREAMBLE

- 1.1 THE ACCIDENT :-** 51420 Passenger Train left Sulebhavi and while negotiating 3 degree left hand curve at km 630/700-800, the train met with the accident at a location where ballast and soil had been washed away. There was train parting between the driving loco and the dead locomotive in the rear. The rear dead engine derailed and capsized on RH side. 4 coaches behind the dead engine derailed on right hand side.

The driving locomotive did not derail and came to stop at km 631/200-300 at a distance of 344 m from the derailed dead locomotive.

Derailed and capisized dead loco and 3 derailed coaches were lying at km. 630/700-900. Leading bogie of 4th coach had derailed, while rear bogie remained on rails. Rest of the rake remained on rails. Soil below the track had been washed away for a length of 6.6 m on LH side and 11.2m on RH side for a depth of about 2 m and track was hanging. Track was damaged for about 70 m length due to derailment. The accident resulted in suspension of through traffic.

II CAUSE OF THE ACCIDENT

- 2.1** Commissiner of Railway Safety concluded that the accident occurred due to washing away of ballast and formation soil beneath the track at km. 630/700-800 as a result of sudden heavy rains in the vicinity.
- 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 and action taken by Railways are given below -
- 3.1 (a) Recommendation :-** South Western Railway should revive the system of transmission of weather warning messages to central controls and stations in consultation with Meteorological Department.

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- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.2 (a) **Recommendation :-** The location at km 630/700-800 between Sulebhavi and Suldhhal stations on LD-MRJ section, where ballast and formation soil was washed away, should be declared as vulnerable location till adequate water way is provided. Block section Sulebhavi and Suldhhal should be patrolled regularly during monsoon.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.3 (a) **Recommendation :-** South Western Railway should issue detailed instructions as to procedure to be followed by Permanent way gangs for patrolling of track in case of rainfall to comply with provisions of General & Subsidiary Rules.
- (b) **Action by Railways :-** The position has been explained by the Railway Administration to the satisfaction of the Commission.
- 3.4 (a) **Recommendation :-** Anomaly in para 1001(3) of IRPWM with regard to confining the patrolling by P. Way gangs to know points of danger only which is not in conformity with provisions of General & Subsidiary Rules 15.05 should be removed. Such patrolling should be in the entire affected length.
- (b) **Action by Railways :-** Ministry of Railways agrees with the GM's comments. This issue will be discussed in the next TSC.
- 3.5 (a) **Recommendation :-** South Western Railway should ben deployment of permanent was gangs out of their jurisdiction especially in rainy season.
- (b) **Action by Railways :-** Remarks of CCRS are partially accepted. The deployment of P-Way Gang away from their beat should not be done in a routine matter. The deployment of P-Way Gang should be done only in emergent/abnormal situations. S.W. Railway has already been advised vide Board's letter no. 2013/CE-II/CRS/3 dated 01/10/2013.

THE ABSTRACT OF THE REPORT OF COMMISSIONER OF RAILWAY SAFETY INTO FIRE IN A COACH OF TRAIN NO 57660 UP FALAKNUMA-GULBARGA PASSENGER AT GULBARGA STATION OF SOLAPUR DIVISION OF CENTRAL RAILWAY ON 16.10.2012.

I. PREAMBLE

- 1.1 **THE ACCIDENT :-** 57660 Up, Falaknuma-Gulabarga passenger arrived at Gulbarga station at 12.48 hrs on 16.10.2012. The train remained on platform with loco attached to the train as it was scheduled to leave at 16.10 hrs for Solapur as 57628 Up Gulbarga-Solapur Passenger. Passengers travelling beyond Gulbarga (towards Solapur) normally remained seated in the train. At 13.40 hrs, fire in coach NO. SC 99480 GS (6th from engine) was noticed and within 10 minutes fire spread to complete coach. Station staff tried to extinguish the fire with fire extinguishers available at station, in loco and brake van of the train. Water of apron washing pipeline was also used but fire could not be extinguished. At 13.55 hrs, fire affected coach along with one-one adjoining unaffected coaches at each end were detached from rest of train and gaps were created. On duty Dy. SM informed fire brigade at 13.45 hrs and ambulance services at 13.50 hrs. Fire brigade arrived at site at 14.05 hrs and extinguished the fire at 14.25. In burnt coach two charred dead bodies were found lying on floor between berths in 1st bay from Wadi end. Six injured passengers were those seated in 2nd and 3rd bay from Wadi end.

II CAUSE OF THE ACCIDENT

- 2.1 Commissioner of Railway Safety concluded that the accident occurred due to pouring petrol on themselves by unknown deceased boy and deceased girl inside the toilet of coach and putting themselves on fire.
- 2.2 Cause as established by Commissioner of Railway Safety was accepted by the government.

III. REMARKS AND RECOMMENDATIONS

- 3.0 Remarks and recommendations made by Commissioner of Railway Safety and action taken by Railways are given below -
- 3.1 (a) **Recommendation :-** CRS has not given any Recommendation on this accident.
- (b) **Action by Railways :-** NIL

