



KONKAN RAILWAY CORPORATION LIMITED

ACCIDENT MANUAL

APRIL 2021

SAFETY ORGANISATION

FOREWORD

The Accident Manual is a compendium of all instructions, rules and regulations and guidelines issued from time to time on the subject of Railway Accidents.

This New Accident Manual is brought-out after reviewing all the rules in conformity with Railway Board instructions with an orientation for practicability at the field level.

Accident Manual should be gone through by all the Railway officials, staff who are required to deal with train operations directly or indirectly and those who have to maintain the Railway Assets. All Railway officials should be fully aware and conversant with the provisions of the Accident Manual, General and Subsidiary Rules and Safety Circulars issued from time to time. However, whenever there is conflict in the instructions, the provisions of General and Subsidiary Rules will get priority.

Let us take solemn pledge to make the travel safe and justify our moto 'Sadar Seva'.

(Sanjay Gupta)
Chairman and Managing Director

To Railwaymen

This Manual brings together in comprehensive manner all the rules, regulation and procedures for dealing with accidents.

Last edition of the Accident Manual was published in the year 2012. The present edition contains all the amendments issued since then.

Every Railway servant who is required to deal with accidents should be in possession of this Manual and be thoroughly conversant with its contents.

The Instructions contained in this Manual should be read in conjunction with the General Rules for open lines of Railways and the Subsidiary rules thereunder and other rules/instructions issued from time to time for safe working of trains.

This Manual is to be kept upto date by pasting correction slips as and when the same are issued. And should be recorded in the register of amendments/additions along with the particulars pertaining to the rules, date, page No. etc.

Suggestions for improving the contents of this Manual should be addressed to the Chief Safety Officer.

(D S Lingaraju)
Chief Safety Officer

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CHAPTER - I

DEFINITIONS

101. **Train:** A train is a set of vehicles, empty or loaded, worked by locomotive, or any other self propelled unit including light engine / engines, or rail-motor vehicles or a single rail - motor vehicle, empty or conveying passengers, live stock, parcels or goods, which cannot be readily lifted off the track and running under a particular number or a distinct name from fixed point of departure to a fixed destination. Part of a train shall also be treated as a train for the purpose of this definition classification and statistics. The train engine or any other vehicle once put on the train continues to be a part of the train until the station is reached beyond which it is not required to go on the same train. At such stations, the moment the train engine or any other vehicle is cut off the load, it ceases to be a part of the train.
102. **Passenger Train:** A train intended solely or partly for the carriage of passengers shall be treated as a passenger train. A workman's train or a ballast train or a material train or an Accident Relief train or a Tower wagon or such other train carrying workmen, or Cattle special / Military special carrying authorized escorts or similar such train shall be treated as a passenger train.
103. **Other Trains:** All other trains not covered under Para 102 above shall be termed as "other trains".
104. **Accident:** For the purpose of Railway working, accident is an occurrence in the course of working of Railway which does or may affect the safety of the Railway, its engine, rolling stock, permanent way and works, fixed installations, passengers or servant or which affect the safety of others or which does or may cause delay to train or loss to the Railway. For statistical purposes accident has been classified in categories from "A" to "R" excluding "I" and "O".
105. **Serious Accident:** Accident to a train carrying passengers which is attended with loss of life or with a grievous hurt to a passenger or passengers in the train, or with serious damage to railway property of the value exceeds Rs. 2 Crore. If the damage to the Railway property exceeds Rs. 2 Crore, which may not have actually occurred but the nature of the accident might reasonably have been expected to occur, the accident is required to be reported to the CRS under section 113 and 114 of the

Railway Act 1989 and any other accident which in the opinion of the Chief Commissioner of Railway Safety or Commissioner of Railway Safety requires the holding of an inquiry by the Commissioner of Railway Safety shall also be deemed to be a serious accident. However the following shall be excluded:-

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

106. Injuries: Injuries are classified as grievous and simple.

- (i) **Grievous Injuries:** Injuries for purpose of these statistics should be taken as injuries as defined in Section 320 of Indian Penal Code reproduced below for ready reference. (Section 320, Indian Penal Code 45 of 1860). The following kinds of hurt only are designated as “grievous”:-
 - (a) Emasculation
 - (b) Permanent privation of the sight of either eye.
 - (c) Permanent privation of the hearing of either ear.
 - (d) Privation of any member of joint.
 - (e) Destruction or permanent impairing of the powers of any member or joint.
 - (f) Permanent disfigurement of head or face.
 - (g) Fracture or dislocation of a bone or tooth.
 - (h) Any hurt which endangers life, or which causes the sufferer to be, during the space of twenty days, in severe bodily pain or unable to follow his ordinary pursuits.

(ii) Simple Injuries:-

- (a) A person will be considered to have incurred simple injuries if these injuries incapacitate the injured person to follow his customary vocation during 48 hours after the occurrence of the accident.
- (b) A Railway servant is considered to have been injured if he/ she is prevented from returning to work as a result of injuries for a period of 48 hours after the occurrence of the accident.

107. **Train Accident:** Train accidents are an accident that involves a train. Train Accidents are further divided as:

- (a) Consequential train accidents
- (b) Other train accidents.

Derailment or bumping during reversing or shunting operations etc. on an incoming, outgoing or any other load, including a sectional carriage etc., shall be deemed to be a train derailment only when the train engine or vehicle still forming part of the train, derails or as a result of bumping casualty (including injury) or loss to railway property takes place, irrespective of whether the shunting was being done by the train engine or by a shunting engine.

108. **Consequential train accidents:** Include train accidents having serious repercussion in terms of either one or many or all of the following:

- (a) Loss of human life,
- (b) Human injury,
- (c) Loss of Railway property,
- (d) Interruption to Railtraffic.

109. **Other train accidents:** All other accidents which are not covered under the definition of consequential train accidents are to be treated as “other train accidents”.

110. **Yard accidents:** All accidents that take place in a yard and does not involve a train are termed as YardAccidents.

111. **Indicative Accidents:** In real term they are not accidents but are serious potential hazards and include all cases of train passing signal at danger, averted collision, breach of block rule etc.

112. **Equipment failures:** An equipment will be considered as failed if it is not able to perform the prescribed function within the prescribed time limit. These include all failure of Railway equipment i.e. failure of

locomotive, rolling stock, permanent way, overhead wire, signaling and telecommunication equipment, etc.

113. **Unusual incidents:** These include cases related to law and order but not resulting in train accidents and other incidents.
114. **Reportable Train Accidents:** All accidents falling under the purview of Section 113 of Railway Act, 1989 are termed as reportable train accidents and include following:-
- (a) Any accident attended with loss of human life, or with grievous hurt.
 - (b) Any collision between trains of which one is a train carrying passengers; or
 - (c) The derailment of any train carrying passengers, or of any part of such train; or
 - (d) Accidents which are attended with loss of human life in passenger trains involving trains wrecking or attempted train wrecking, cases of running over obstructions placed on the line, of passengers falling out of train or of fires in trains, or grievous hurt as defined in the Indian Penal Code, or serious damage to railway property of the value exceeding rupees Two Crore which have not actually occurred but which by the nature of the accident might reasonably have been expected to occur and also cases of land slides or of breach by rain or flood which cause interruption of any important through line of communication for at least 24 hours.
115. **Collision:** Means the impact of train or trolley against another train or trolley or any vehicle or other obstruction. It does not include impact of wagons or loads due to rough shunting, unattended with casualties or only attended with negligible damage.
116. **Derailement:** Means off loading of wheel or wheels from the rail causing detention or damage to rolling stock / permanent way.
117. **Fire:** The statistics of fire shall include all cases of physical fire or smoke emission resulting in death or injury or damage to property amounting to Rs. 50000/- and above.
118. **Averted Collision:** An averted collision is a circumstance under which but for the vigilance shown by any person or persons, a collision would have occurred, either in the block section or within the station limits between two trains or between a train and an obstruction.
- Provided further that such an occurrence may not be treated as an “Averted Collision”:-

If, outside the station limits, the distance between the two trains or the train and the obstruction at the time the train or trains have finally come to a stop, is 400 meters or more.

If, within the station limits, there is an intervening stop signal at danger governing the moving train, and compliance by the moving train with the indication conveyed by the Stop signal averted the collision between the trains or between the train and the obstruction.

119. **Breach of Block Rules:** When a train enters a block section without any “authority to proceed” or with an improper authority to proceed, or is received on a blocked line not constituting an averted collision, or when it enters or is received on a wrong line at a station or a Catch/Slip siding or sand hump, it constitutes breach of Block Rules.
120. **Sabotage:** Means the criminal interference with any part of the working machinery of a Railway with the object of rendering it inoperative or any act intended to cause damage to railway property other than train wrecking or attempted train wrecking.
121. **Train Wrecking:** Means the willful obstruction of or tampering with the permanent way, works or rolling-stock, resulting in an accident to a train with or without loss of life or damage.
122. **Attempted Train Wrecking:** Means the willful obstruction of or tampering with the permanent way or works, structures, equipment or rolling-stock, which, if undetected would have resulted in an accident.
123. **Capsized Coach / Wagon:** Capsized coach / wagon is one in which all wheels are off the ground and it is resting on its side, either on the ground or against an obstruction.
124. **Level Crossing:** Means the intersection of the road with railway track at the same level.
125. **Threshold value:** For the purpose of reporting of accidents, threshold value is the minimum value beyond which the accident will be treated as having serious repercussion on the basis of loss to railway property or interruption to communication. It shall constitute two portions:
 - i) Threshold value of Railway Property loss which is fixed at One lakh rupee or;

- ii) Threshold value of interruption to communication either partial or total where duration of interruption to communication is equal to or more than Number of hours specified against each cell.

Interruption	BG-A,B,C or D Spl.	BG-D, E Spl.	BG - E or NG
Total	3 Hrs.	4 Hrs.	6 Hrs.
Or	Or	Or	Or
Total + Partial	6 Hrs.	8 Hrs.	12 Hrs.

Duration of Interruption is defined as duration from the time of accident till starting of first train on line clear from adjacent station for movement over the affected line in that section. The movement of first Commercial Train (Goods or Passenger) shall be reckoned for the purpose of considering the restoration after an accident as complete. A time frame of 30 minutes has been laid down within which the first commercial train should start on the line clear from for the movement over the affected line. Cases of movement of commercial Train after 30 minutes of fitness of Track/OHE shall be categorized as delay in restoration of traffic. In case, there is no Commercial Train available to be run on that section after Track Fit / OHE Fit, an exception may be made at the level of COM who shall certify that there was no 'Commercial Train' to pass over the affected section within 30 minutes of Track Fit/OHE Fit.

C C C C C C

CHAPTER - 2

GENERAL INSTRUCTIONS AND ACCIDENT MANAGEMENT

201. Scope of the Rules:

- (a) These rules should be read in conjunction with General and subsidiary rules of KRCL. Nothing in these rules shall be read as canceling, amending or modifying any of the General and Subsidiary Rules or the Instructions contained in any of the Railway Board's circulars on the subject of accidents.
- (b) Except where specially mentioned, nothing in these rules applies to Workshop Accidents, which are covered by the Factories Act of 1948 and Rules made there under.
- (c) These rules apply throughout the Konkan Railway to all open lines, lines under construction and sidings-Railway, Private or Assisted which are worked by this Railway.

202. **Distribution of the Accident Manual :** Copy of the Accident Manual shall be supplied to each branch of the Corporate Office, Control Office, all officers of Region, each station, loco and C & W depots, offices of SSEs / SEs of Permanent way/works, S & T, Electrical & Mechanical, Inspectors of Loco / Traffic / Commercial, Train Examiners (TXR), In charge of ART/ SPARM & MFD TV/ RMV / CSM / UNIMAT / BCM/DTS/UTV/BRM/TOWER WAGON/Trolley, Each Station Master, Loco pilot, Guard and Health Units, RPF Posts and other Railway servants as prescribed by special instructions.

203. **Acquaintance with the rules :** Every Railway servant is bound by these rules and whether supplied or not with a copy of the Accident Manual, must make himself acquainted with the Rules relating to his duties and any revision from time to time. In order that a Railway Servant may efficiently perform duties assigned to him, it is necessary that he should acquaint himself with the Rules relating to duties of others also as prescribed in this Manual. (Please refer Chapter 5).

NOTE: Duties of Railway staff in this chapter and elsewhere in the Accident Manual are not exhaustive. Additional duties prescribed in various other circulars, rule books, manuals, codes etc. from time to time shall also be applicable to the Railway servants concerned. The change of designation or up gradation/down gradation of any post shall not generally change the duties and responsibilities as far as these are not specially changed.

204. Objectives in dealing with accidents:

- i) To save life and alleviate-suffering.
- ii) To protect properties of Railway and Passengers.
- iii) To provide succour and help to affected passengers.
- iv) To preserve clue and ascertain the cause of an accident.
- v) To restore through communication.

205. Duty of Railway Servant:

(A) Duty of securing safety of the Public (G.R. 2.11): Every Railway servant shall

- i) See that every exertion is made for ensuring the safety of the public.
- ii) Promptly report to immediate superior any occurrence affecting; the safe and proper working of the Railway which may come to his notice; and
- iii) Render all assistance in case of an accident or obstruction.

(B) Every Railway servant who observes

- (i) That any signal is defective
- (ii) Any obstruction, failure or threatened failure of any part of the way or works
- (iii) Anything wrong with a train; or
- (iv) Any unusual circumstances likely to interfere with the safe running of trains, or the safety of the public shall take immediate steps, to prevent an accident and where necessary, advise the nearest Station Master by the quickest possible means. Provided that in the case of train having parted, he shall not show a stop signal but endeavor to attract attention of the Guard or Loco pilot by shouting, gesticulating or by other means.

NOTE : In case any unclaimed object / bomb / suspected explosive is noticed by any one, he shall immediately inform the Station Master on duty and RPF, Police who shall take further action.

206. **Every Railway Servant to render all possible assistance:** It is the duty of every Railway Servant, irrespective of what department he may belong

to, to render all assistance in his power in clearing the line and restoring traffic after an accident.

NOTE: Schedule jurisdictions should not stand in the way when it is more expedient for another official to render assistance.

207. General duties of Station Master in case of an accident:

- i) Take immediate steps to protect and safeguard property on the Single line section. "SH" key shall be extracted from Block instrument and kept in personal custody of Station Master on duty. On the double line he should lock the commutator of the block instruments concerned at "Train on line" position. He shall take such action as necessary to stop movement towards the affected block section.
- ii) Inform control.
- iii) Obtain information and note down briefly about casualties, extent of damage, No. and type of vehicles involved, assistance required, prima facie cause and probable time of restoration.
- iv) Inform all concerned as per the rules.
- v) Arrange for immediate requisitioning and dispatch of nearest medical assistance and equipment when Medical aid is required, and
- (vi) Provide necessary assistance to passengers.

208. Preparatory items and Reference check lists: Every Railway servant particularly the staff required to attend to an emergent situation in connection with relief and rescue operations relating to an accident should ensure all the time that:

- i) The equipment and communication systems are in efficient working order for dealing with accidents and if any deficiency / defect is noticed, appropriate measures are taken for replacement of material and rectification of defects.
- ii) No delay shall take place in attending to an emergent situation.
- iii) Special attention is paid to;
 - (a) Proper up keep of Accident Relief Trains/Accident Relief Medical and MFD Tool Van.
 - (b) Prompt replacement of the material after every use
 - (c) Conducting frequent trials and drills particularly during night to ensure preparedness

- (d) Directly connected with train passing/running duties of Operating Commercial, Engineering, Mechanical, Signal & Telecommunication and Electrical Department etc. should not leave their HQs without prior approval as they are required to attend emergencies at very short notice.

209. Lists for ready reference:

- (a) The following information along with current telephone numbers have to be kept at all stations, and Control Office of Region and Corporate Office.
 - (i) List of nearest Railway, Civil, Military, Police and Private Medical facilities and Ambulance services with locations and telephone numbers.
 - (ii) List of Civil, Police and other authorities to be informed in case of an accident.
 - (iii) List of fire-fighting arrangements (Railways, State Government, Public Sector, Private Sector).
 - (iv) Addresses of nearby POL and LPG marketing company's representatives and specialized industry like Petro-chemical, Hazardous chemicals etc.
- (b) In addition, Regional and Control offices shall also keep the following lists with current telephone Numbers:-
 - (i) District Magistrates, District Superintendents of Police,
 - (ii) Heads of Private and Public Sector organizations located in the Division from whom assistance can be sought.
 - (iii) Address of local officials of Atomic Energy Commission with location of offices (for movement of radioactive materials).
 - (iv) Road Map of the Region, Station Working Rules of all stations, Master charts, Rule-Books-G&SR, Accident Manual, Disaster management plan.
 - (v) List of officers - to be advised in case of serious accidents.
 - (vi) List of adjacent Regional/Area Officers.
 - (vii) List of officials from whom Helicopter/Aero plane can be chartered.
 - (viii) List of Railway's road vehicles with numbers and controlling officers.

- (ix) List of co-ordinating officials in Army/Navy/Air Force and the State Government Headquarters whose assistance can be sought in case of serious accidents.
 - (x) List of State Transport Bus Depots.
 - (xi) Telephone numbers of T.V. Centre/Radio Station etc.
 - (xii) List of staff trained for L.P.G. or other emergencies.
 - (xiii) Names of Technical Officers of L.P.G. Loading Stations.
210. **Controlling Stations:** Every section should have a system of nominating “Controlling Stations”. The Station Master of such nominated “Controlling Stations”, should immediately on receiving advice of an accident, reach the site with sufficient staff drawn from all the departments at his station and take all necessary steps for rescue and relief operations. Staff of all departments must follow the directions of the controlling Station Masters in this regard and render all help and assistance necessary for tackling the disaster situation.
211. **Ordering of Relief Arrangements:** On receipt of advice of an accident the CHC/ Dy.CHC shall order the Accident Relief Train and / or SPARM & MFD Tool Van, as necessary.
212. **Action to be taken when accident alarm siren / hooter is sounded:**
- Immediately after the accident alarm siren / hooter is sounded, all staff earmarked for accident relief train shall report at the nominated place and others at the station. All officials concerned shall report at the Medical Van if ordered, and proceed with the medical van or to undertake any other duty that may be assigned to them. The Loco Inspector / Crew Manager on-duty shall immediately take action to:-
- (a) Arrange for locomotive. Any locomotive available should be utilized.
 - (b) Call the loco crew and accident train relief staff.
 - (c) Turn out the accident relief train quickly to be dispatched to the site of the accident.
213. **Facility to other Officials :** The Government Officials, such as the Commissioner of Railway Safety, the District Collector, the District Superintendent of Police of the District in which the accident has occurred or such other Magistrate or police officers, as may be appointed in this behalf by the Local Government, the Superintendent of Railway Police and the Officer-in-charge of the police station within the local limits of

which it has occurred, should be given every facility to proceed to the site of the accident by Accident Relief Train wherever practicable, but Accident Relief Trains should not be detained for this purpose.

214. **Precedence of ART / SPARM & MFDTV:** An accident relief train when proceeding to the site of accident will have precedence over all other trains. A break down train / medical van must not be detained for Guard, and must leave with the in-charge of Break down train. A Guard must be quickly arranged later.
215. **Medical Assistance:** In accidents involving loss of life or serious injuries, medical assistance from the Railway, Civil and Military hospital from the nearest station must be requisitioned and sent to the site of the accident, by the quickest possible means. Medical Vans may also be sent ahead of break down train with as much Medical staff as is readily available, and whenever possible. The SE/JE (S & T) will travel with these vans and take a portable telephone with him. The train carrying the medical aid should be given precedence over all trains but may be stopped enroute to pick up doctors and medical equipment. Railway Doctors of adjacent dispensaries/Hospital, even of other Divisions and Railways, may also be directed to the site of Accident, if required.
216. **Communication Equipment:** Portable field telephones, mobile phones, walkie-talkies sets, etc. should be provided on break-down train / Medical Van which can be used from the site of the accident. The Controller or the Station Master must immediately advise the S & T staff to proceed to the site, with the break-down train or with the medical van. A break-down train / Medical Van must not, however, be detained for the S & T staff, but the staff should proceed to the site of accident by the quickest possible means.
217. **Charge of site by SM:** The SM of the nearest important station must proceed to the site by the quickest possible means unless the Area Supervisor is already there. The former must remain there and take general charge until relieved by a Area Supervisor or Officer.
218. **Sending of passenger relief train to the site of Accident:** Regional Control Office shall organize passenger relief train to clear the passengers of the train involved in the accident. Where necessary, arrangement of Bus / Taxi shall be made for transshipment of the passengers.
219. **Sending of accident relief train, medical van and senior officers to the site of accident by the contiguous Railway :** In case of an accident occurring on a Railway near a junction station under the control of another Railway, the contiguous Railway, should invariably assist the affected Railway by dispatching its own accident relief train and medical van etc.,

to the site of the accident, provided such relief facilities are available and it is considered that by doing so medical and other relief would reach the site quicker. All this should be done in co-ordination with the affected Railway in which the accident has occurred.

220. Medical Relief:

- 1) The primary duty of all Railway servants is to render prompt assistance to the injured in an accident. The Guard or the SM should ascertain if there are doctors and first aid workers amongst passengers, and they should be requested to assist. All available first aid equipment in train or at stations must be used.
- 2) In cases of grievous injuries, the nearest Civil or Military medical officials and ambulances must be summoned with the object of affording relief to the injured at the earliest possible movement.

In such cases, if it is necessary to requisition the services of road vehicles for the transport of grievous injured passengers, the Guard of the train may do so and, if demanded by the Driver of the trucks / bus etc. so requisitioned, give a memo to the effect that his truck / bus has been requisitioned by the Railway for carrying injured passengers from Kilometers.....tohospital/ station.

- 3) Injured passengers, trespassers, and other non-railway persons, when able to travel, should be moved to the nearest public hospital or dispensary by the quickest possible means. Whenever possible, the injured person must be accompanied by a Railway / Civil police officials, and the latter's name and number must be noted. If the police official is not available the injured person may be accompanied by any responsible railway employee to the hospital after rendering first aid.
- 4) When an SM or other Railway employee arranges medical aid from outside, he shall inform the MO / Sr. MO/Dy CMO and the nearest Railway Doctor, as early as possible of the nature of assistance rendered by them.

221. Speedy transport of injured persons to hospital stations: After examination by railway doctor, all the injured passengers must be transported as speedily as possible to the hospital as decided by the CMO/Dy. CMO.

222. Examination of Grievous / Simple injury: In all cases of injuries to passengers, however trivial, the injured person should be examined by a qualified doctor, to determine whether the injury is grievous or simple.

Should a passenger refuse to be examined every endeavor must be made to obtain a written refusal.

223. **Facility to Railway doctors to reach site of accident:** All Railway servants shall afford every facility to Railway doctors to enable them to reach site of the accident with the least possible delay.
224. **Refreshments and vendors to accompany relief trains:** As soon as a relief train is ordered, instructions must be given to the SM of the originating station of the relief train to send sufficient number of vendors with food, including tea and milk with the relief train.
225. **Refreshments to be given to passengers involved:** Drinking water should be arranged in sufficient quantity. Beverage, Food, etc. may be supplied free of charge to the affected passengers of the train involved in accident as well as of trains held up at adjacent stations. This should include injured, uninjured and stranded passengers. This may be arranged from Railway or outside sources as necessary. It should be ensured that the catering staff/vendors do not exploit the situation. Senior most officials at the site shall also have the power to arrange conveyance of the affected passengers free of charge by any available mode of transport and also incur expenditure for carriage of passenger's luggage up to the point where railway facilities are made available. The Officers from the Commercial Department must co-ordinate relief arrangements from the control and the site and issue proper direction for dispatch and distribution of food, drinking water, etc. Arrangements for the above items at important stations should also be made wherever necessary. Proper accountal in this respect should be maintained. (Please see Appendix G)
226. **Temporary hospital at the site of the accident:** In case the Dy CMO/Sr.MO/MO considers it necessary to open a temporary hospital at a station near the site of accident, the SM must make available whatever accommodation he is called upon to provide.
227. **Arrangements for reception of patients at non-Railway Hospitals:** Timely advice must be given to the Civil and Military hospitals of the number of injured persons proposed to be shifted there and the time that they are expected to arrive at the hospital. Ambulances or suitable road vehicles should also be requisitioned from the police, the army and other sources to the site of accident or at the hospital station. If adequate transport cannot be arranged for by such means transport should be hired.

228. **Care of injured persons arriving at hospital station:** The Station Master of the hospital station or any other official deputed for the purpose will be responsible for -
- a) Receiving the train carrying the injured on platform line easily accessible to ambulance cars, stretchers, etc.
 - b) Arranging for a room or other suitable place for the reception of the injured prior to their removal to the hospital;
 - c) Making adequate Railway Protection Force arrangements so as to facilitate the handling and reception of the injured; and
 - d) Opening an inquiry Bureau from where public inquiries regarding the injured and dead may be attended to.
229. **Information of the condition of the passengers injured or dead:** If telephone number is available, Railway will arrange to provide information about the condition of affected passengers to his kith and kin free of charge. Double Express telegrams will also be sent if address is available, free of cost. (Appendix H).
230. **Issue of Complimentary passes to the next of kin of the victims as well as to the surviving victims of Railway accidents:** With the approval of the Chairman and Managing Director complimentary passes in favour of not more than two persons may be issued to the next of kin of victims from any station in India to the site of accident and back to their destinations as well as to the surviving victims who are discharged from the hospitals, to their destination. The issue of such passes shall be regulated in accordance with the instructions laid down in Railway Board's Letter No. E (G) 58PS5- 6/1 dated 25.8.1958 (Appendix I).
231. **Ex-gratia payment to the injured or to the next of kin of the deceased victims:** The detailed instructions for ex-gratia payments are given in Appendix -Q
232. **Referring of the injured persons to private hospitals:**
- a) It will be the duty of the train or station staff to render first aid to a person injured within the Railway premises immediately. If necessary, arrangements should be made to summon medical aid from other Railway or non-railway sources.
 - b) In the following special cases, the injured person may be taken to a private hospital:
 - i) When there is no railway or non-railway government hospital

available within a radius of, say eight kilometers of the site of accident, or

- ii) When the attending doctor certifies, in writing, in the prescribed proforma that the treatment in private hospital is necessary in the interest of the patient.
 - c) Where a private hospital, to which an injured person is taken in terms of (i) and (ii) above has different scales of charges for different kinds of accommodation / diet, he should normally be eligible to the lowest class of accommodation / diet available. It will be left to the discretion of the doctor in charge, depending on the severity of the injury, to admit the injured person to a higher class of accommodation / diet, if it is considered essential for the recovery, or for prevention of serious deterioration of the condition of the injured person.
 - d) Where the aforesaid conditions are not satisfied but the injured person, or any adult member of his family who happens to be along with him, desires him to be provided with a higher class of accommodation / diet, there would be no objection to this being done, provided the injured person or the adult member of the family agrees, in writing, to pay extra cost involved directly to the hospital authorities.
 - e) For this purpose, each of the Railway administrations should come with a working arrangement with such private hospitals as may be necessary in the areas served by them so that in an emergency, injury cases can be referred without loss of time to the hospitals concerned. To facilitate matters and to avoid misunderstandings, the Chief Medical Officer/EDHS should draw up a list of such private hospitals, bearing in mind the Railway or non Railway hospitals in existence in the vicinity. The Chief Medical Officer/EDHS should also settle the charges to be paid to the hospitals for such cases for each class of accommodation / diet etc.
233. **Railway doctor to accompany injured persons to non-Railway hospitals:** When injured persons are sent to a non-Railway hospital for treatment, the EDHS/CMO/Dy. CMO/In-charge must depute a Railway Doctor to accompany them from the station to hospital and see that they are properly accommodated. The doctor so deputed must give a daily report of the progress of patients to the EDHS/CMO/Dy. CMO/In-charge.
234. **Care of dead Bodies:** In the case of serious accident, the senior most Railway Officer on the spot should discuss the question of disposal of dead bodies with the senior most Police Officer at the site of the accident and they

should jointly determine the place for keeping the dead bodies under the control of a responsible officer. The Police have to take charge of the dead bodies and they should be given the requisite facilities for their transport to well protected places where they could be kept pending completion of formalities or until claimed by the next of kin. It may be stressed that respect for the dead should be the primary consideration and in any case, no dead body should be kept exposed to the weather.

235. **Recording of information of injured / dead :** In case of serious accident, the medical staff are fully engaged in dealing with the casualty cases, a responsible official should be detailed by the RRM to take notes, regarding details of the injured / dead as mentioned and as indicated by the doctor.

- a) Name
- b) Full address
- c) Ticket / Pass No. with full particulars of journey
- d) Two marks of identification
- e) Details of injuries
- f) Existing deformities and old scars.

Only rough notes are to be recorded at the site of accident, based on which detailed reports are to be made out later.

No statement with regard to number or nature of casualties should be given to members of public or press till all casualties / injuries have been reconciled and verified correctly. These reconciled and final figures should only be given to press or general public by the senior most Railway Official on the spot, viz. RRM/CMO/CMD or other Regional Officer as the case may be.

[Ref: Para 713 of Indian Railway Medical Manual Vo. II]

236. **Submission of reports regarding injured / dead :** On return to head quarters, a detailed report should be made out based on rough notes recorded, which should give the name and addresses of all persons injured with details of injuries and should state how each case has been dealt with. The detailed report should also give particulars of the cases attended by the non-railway doctors and the name and addresses of such doctors. The report should be submitted to the EDHS/CMO along with the injury reports on accident block forms for passengers and railway

employees separately. These notes should be kept confidential as these form important documents for assessing compensation.

[Ref: Para 714 of India Railway Medical Manual Vol. II]

237. Important facts, noting of: Any Officer / Area Supervisor / SM or Guard and other concerned officials present at site or arriving first at the site shall record the relevant information at the site of accident as under:

- 1) The names and addresses of persons killed or injured if possible, particulars of their injuries and also of tickets held, if available.
- 2) Obtain names and addresses of independent eye - witnesses and if possible, their statements, duly attested by them. No person should, however, be forced in any way to give his name or statement, but if he declines to do so, the fact should be mentioned in the report.
- 3) The Officers and Senior Sub-ordinates present at the site, shall jointly examine all evidences such as the condition of the track and rolling stock, brake-power etc. and preserve all clues which may prove useful in ascertaining the cause.
- 4) Measurement of track and rolling stock should be taken in the Performa given in appendix M.
- 5) The marks on sleepers, position of derailed vehicles, broken parts of track or vehicle and other particulars, which may have a bearing on the accident shall be carefully noted and preserved by the concerned officials jointly. In case of accident at station, the position of the track, signals, points, point-levers, indicators, keys lever collar / button cap used, badges, transmitter keys, relay room keys, shall also be recorded. At night, any signal, brake-van or disc lamp, which is not lit, should be carefully inspected to ascertain if the lamp was recently lit and recorded.
- 6) Cross-levels / gauge / versine etc. should be taken at or near the point of derailment, by the senior sub-ordinates, jointly and also at the point where the track has been loaded, either with a locomotive, fully loaded wagon or a coaching vehicle.

The above should not interfere with the rendering of Medical aid to the injured or other relief measures to the passengers.

238. Duties of Way and Works / Bridges Branch: The Engineering Officer or his Senior Subordinate first reaching the site of the accident must make a complete and accurately dimensioned sketch. He must also check the track and take the readings as per prescribed procedure.

239. **Duties of Mechanical Branch:** The Mechanical Officer or his Senior Subordinate first reaching the site of the accident must examine the engine and rolling stock and make a note of any damage or deficiencies. Any detached or broken parts must be secured. Vacuum/Air pressure Certificate, Caution Orders, Speedometer graphs should be taken out in the presence of Inspector/Supervisor of Mechanical (or Electrical in case of Electric Locomotive) Traffic and Engineering Branch. In case the graph is not found a Joint Certificate to this effect should be recorded by the three Senior Supervisors. Same procedure is to be adopted in case the Speedometer Graph is taken out from the loco at any place other than the accident site.
240. **Joint observations and Joint Readings - Responsibility of Senior most Inspector/Supervisor:**
- (i) The Senior Supervisors / Inspectors of the Traffic, Mechanical and Engineering, S & T and Electrical (when their Department is involved) shall be personally responsible to see that the joint observations and readings are recorded without undue delay.
241. **No tampering with the evidence unless joint observations are taken:** There should be no tampering with the evidence unless joint observations are taken. However, in order to save life or to clear the track for passing coaches, carrying injured passengers or for any other reason to be recorded in writing, the Senior most Officer, not below the rank of Senior scale, can order and authorize through control phone or from site, that certain vehicle be moved or certain point disconnected or certain portion of distorted track be repaired after the sketch is made or photograph is taken.
242. **Preservation of Clues:** It is very necessary to preserve all clues as far as possible for helping the CRS / accident inquiry committee, as even an apparently unimportant clue may give some useful information as to the likely cause of accident. The clearance should ordinarily be limited to the removal of dead-bodies and injured persons from the debris, if any, and wherever feasible in case of serious accidents, communications may be restored by laying a diversion, so that the original clues could be preserved undisturbed. In any individual case where the circumstances compel the removal of debris, in part or whole, complete and detailed notes should be recorded by the senior most officer present, of the observations made by the various officers, before issuing such orders. These notes could be given to the accident inquiry committee. All sleepers, rails, S & T gears and other fittings removed from the site should be carefully preserved for inspection by the accident inquiry committee.

Supervisors should record evidence fully and preserve material. Analysis at the time of collecting evidence is not considered desirable as it can result in leaving out some evidence as not relevant, but which later on may be required for analysis and arriving at the correct conclusion.

The video cassette of the serious accident should be prepared not by taking clippings here & there but in a continuous manner by specifically showing the position of Coaches, Engine, Under gears of coaches & engines, rails, tracks etc. and the clues which may in turn provide some information to the inquiring authority. Similarly, still photographs should also be taken in a judicious manner.

243. Clearing Operations:

- 1) The senior most officers at site will exercise general supervision and co-ordinate the work of all departments for the restoration of traffic.
- 2) The senior most officer or Supervisor from the Engineering or Mechanical branch will be In- charge for clearing operations.
- 3) The senior most operations officer or Supervisor at the site will be in-charge for regulation of traffic.
- 4) The senior commercial officer or Supervisor shall make arrangements for transshipment of wagons, if required.
- 5) On electrified sections, the senior most electrical officer or supervisor will look after the traction matters.
- 6) The CTM/Dy.CTM/AOM/ASO will take over charge of the control office and regulate traffic.
- 7) In accident cases where sabotage is suspected, the clearance and restoration operation should not be commenced until the arrival of the police and receipt of all-right signal from them, except when human life is to be saved, in which case operations for clearing the wreckage must go on continuously until it is definitely known that all the injured persons have been extricated from the debris and it is established beyond all reasonable doubt and with the assistance of medical testimony (preferably independent) that only dead bodies remain, care must however be taken to preserve clues etc

In other accident cases where sabotage is not suspected, clearance and restoration operations may be commenced even before the arrival of the police, but all relevant material and clues etc. must be carefully preserved to enable the scene being reconstructed, if

considered necessary.

- 8) Steam and hand crane shall not be worked adjacent to overhead lines, unless such overhead lines are made dead. If the use of a steam or hand crane which may foul the overhead equipment, or track lifting is necessary on the electrified area, the Power Controller, Traction supervisor OHE, and the REE/AEE(TD) must be advised on telephone and their sanction obtained.

All movements of the crane jib shall be exercised with great care so as not to foul the overhead lines. Wherever possible the direct blast from the crane chimney to the overhead lines or insulators should be avoided.

- 9) In serious accidents, in case sabotage is suspected the laid down procedure should be followed. In addition, it should be ascertained promptly from the CRS concerned if he would like to inspect the site etc. before the commencement of clearance and restoration work and then action should be taken in accordance with his orders. Before, however, clearance and restoration operations are commenced all relevant clues, material and damages and deficiencies on rolling stock etc. must be noted and preserved
- 10) The senior most Railway Officer present at the site of the accident will decide in consultation with the senior most police officer present at the site whether the case is of a suspected sabotage or otherwise and take action accordingly. For instructions for dealing with cases of sabotage, refer Chapter - 6.

244. Nomination of an official in case of serious accidents to disseminate information to Press / Media:-

In case of serious accident, the senior most official at site will nominate a responsible railway officer at the site of accident to disseminate the information to press / media about the accident. The officer so nominated shall collect the following information:

- a) Brief description of the accident.
- b) Time, date and kilometer age of the accident.
- c) Train or trains involved.
- d) The composition of the train, number of vehicles derailed and number capsized (Painted number of vehicles to be stated)
- e) Brief account and rough sketch showing the condition and position of vehicles, with individual numbers, from which injured and killed

were extricated.

- f) Condition of the lines at the site of the accident.
- g) Railway officials involved in restoration.
- h) No. of railway officials involved in restoration.
- i) No. of passengers killed.
- j) No. of passengers injured.
- k) No. of passengers admitted in various hospitals.
- l) Name, age, address of the affected passengers.
- m) Passengers evacuated.
- n) Relief arrangements.
- o) Description of injuries.
- p) No. of passenger provided first aid.
- q) Probable cause of accident.
- r) Arrangements made for the relatives of the affected passengers.
- s) Communication arrangements made.
- t) Medical facilities at site.
- u) Any medical aid received from outside.
- v) Likely time restoration of traffic.
- w) Any other trains regulated / diverted.
- x) Information booths opened on the railway, with telephone numbers.
- y) Nature of enquiry ordered in the accident.
- z) In general, steps taken by railway for safe running of trains.

245. Working of Traffic when a serious accident takes place:

Following guidelines should be followed while working of traffic in case of serious accident:

- 1) The SMs of the affected stations should be called out to assist in train working being carried out smoothly. If necessary, Senior Supervisory officials should remain in-charge of stations immediately affected by the accident.
- 2) Trains shall be regulated / diverted / cancelled suitably by operating officer in-charge in the Control Office. Not only the stations on either side of the site of accident, but also the stations adjacent to them shall be kept fluid in order to facilitate relief work.

- 3) Passenger carrying trains should be regulated at such stations and there should preferably catering facilities are available.
 - 4) Goods trains should be regulated far from the site of the accident and they should preferably be regulated at stations with three or four lines.
246. **Resumption of normal working:** In the case of an accident involving interruption of communication or blocking of the line, the Senior most Operating Officer and in the absence of an Officer, Area Supervisor, on receipt of a certificate from the Engineering Dept. that the track is safe for traffic, will advise to those originally informed of the accident that normal working is resumed.

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CHAPTER - 3

CLASSIFICATION OF ACCIDENTS

(Ref. Railway boards letter No.2000/safety (A&R) 19/20 DT: 13/12/2000)

301. **Classification of Accidents:** Accidents are classified under following heads:-

- I. Train Accidents
- II. Yard Accidents
- III. Indicative Accidents
- IV. Equipment failures
- V. Unusual incidents

302. **Train Accidents:** Train accident is an accident that involves a train. Train accidents are further divided as :

(A) **Consequential Train Accidents:** Consequential train accidents include train accidents having serious repercussion in terms of loss of human life, human injury, loss to Railway property or interruption to rail traffic. Train accident under following classification will be termed as consequential train accidents:

- i) Collision : All cases under categories A-1 to A-4
- ii) Fire : All cases under categories B-1 to B-4
- iii) Level Crossing : All cases under categories C-1 to C-4
- iv) Derailment : All cases under categories D-1 to D-4
- v) Miscellaneous : All cases under category E-1

NOTE :

- i. Fire in a train should be treated as a train accident when it results in death or in physical injury or in loss of a Railway property to the value of Rs.50,000/- and above. The other cases of fire in trains not coming within this category should be accounted for separately as “other accidents” and should continue to be thoroughly investigated in order to find out their causes and to take effective action to prevent recurrence.
- ii. Derailment during reversal or shunting operations, etc. of an incoming, outgoing or any other load including a sectional carriage

etc. shall be deemed to be a “Train Derailment” only when the train engine or a vehicle still forming part of the train derails, irrespective of whether the shunting was being done by the train engine or by a shunting engine. Sectional carriages will form part of a train only when it is put on a train. If, however, the derailed sectional/departmental vehicle / vehicles do not form part of a train, the derailment would be classified as “other derailment” whether the shunting etc. was being done by the train engine or by a shunting engine.

303. **Yard Accidents:** All accidents that take place in a yard and does not involve a train are termed as “Yard Accidents”. These include accidents falling under categories A-5, B-7, C-9 and D-6.
304. **Indicative Accidents:** In real term they are not accidents but are serious potential hazards and include all cases of train passing signal at danger, averted collision, breach of block rule coming under classification F, G. and H.
305. **Equipment Failures :** These include all failure of railway equipment i.e. failure of locomotive, rolling stock, permanent way, overhead wire, signaling and telecommunication equipment and include cases falling under classification J, K, L and M.
306. **Unusual Incidents:** These include cases related to law (but not resulting in train accidents) and other incidents under classification N, P, Q and R.
307. **Detailed classification of Accidents:**

Consequential Train Accident:

Class “A” - Collisions

- A-1 Collision involving a train carrying passengers, resulting in
 - i) Loss of human life and / or grievous hurt and/or
 - ii) Damage to railway property of the value exceeding Rs. 2 crores and or
 - iii) Interruption of any important through line of communication for at least 24 hours.
- A-2 Collision involving a train NOT carrying passenger resulting in
 - i) Loss of a human life and / or grievous hurt and/ or
 - ii) Damage to railway property of the value exceeding Rs. 2 crores and/or
 - iii) Interruption of any important through line of communication for at

least 24 hours.

- A-3 Collision involving a train carrying passengers, NOT falling under A-1 above,
- A-4 Collisions involving a train NOT carrying passengers and NOT falling under A-2 above.
- A-5 Other collisions i.e. collisions occurring in shunting, marshalling yard, loco Yards and siding etc. but NOT involving a train.

Class “B” - Fire or Explosion in trains

- B-1 Fire or explosion in the train carrying passenger resulting in
 - (i) Loss of human life and/or grievous hurt and/or
 - (i) Damage to railway property of the value exceeding Rs. 2 crores and/or
 - (i) Interruption of any important through line of communication for at least 24 hours.
- B-2 Fire or Explosion in a train NOT carrying passengers resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to railway property of the value exceeding Rs. 2 crores and/or
 - iii) Interruption of any important through line of communication for at least 24 hours.
- B-3 Fire or Explosion in a train carrying passengers not falling under B-1 above but
 - (i) Damage to Railway property is Rs.50,000/- or above and up to Rs.2 Crores, and/or
 - (i) Interruption to traffic is more than the threshold value and/or
 - (i) Resulting into detachment of rolling stock/stocks from the train and/or
 - (iv) Requiring relief engine(s).
- B-4 Fire or Explosion in a train NOT carrying passengers, not falling under B-2 above but
 - (i) Damage to Railway property is Rs. 50,000/- or above and up to Rs.2 Crores, and/or
 - ii) Interruption to traffic is more than threshold value and/or
 - iii) Resulting into detachment of rolling stock/stocks from the train and/or

iv) Requiring relief engine(s)

- B-5 Fire or Explosion in a train carrying passengers NOT falling under B-1 or B-3 above
- B-6 Fire or Explosion in a train NOT carrying passenger and not falling under B-2 or B-4 above
- B-7 Fire or Explosion is occurring in shunting, marshalling yards, loco yards and siding etc. involving rolling stock but not involving a train.

NOTE: In case of an inquiry by a committee into a fire accident in Railway Premises or in a train leading to damage to Railway property and/or booked consignments, a representative of the Railway Protection Force should also be included as a member of the committee.

Class “C” - Train running into road traffic, and/or Road traffic running into trains, at level crossings.

- C-1 Trains carrying passengers, running into road traffic and/or road traffic running into such trains at manned level crossing resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property and / or
 - iii) Interruption to traffic is more than the threshold value.
- C-2 Trains NOT carrying passengers, running into road traffic and/or road traffic running into such trains at manned level crossings resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property and/or
 - iii) Interruption to traffic is more than the threshold value.
- C-3 Trains carrying passengers running into road traffic and/or road traffic running into such trains at Un-manned level crossing resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property and/or
 - iii) Interruption to traffic is more than the threshold value.
- C-4 Trains NOT carrying passengers running into road traffic and/or road traffic running into such trains at unmanned level crossing resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property and/or
 - iii) Interruption to traffic is more than the threshold value.

- C-5 Trains carrying passengers running into road traffic and/or road traffic running into such trains at manned level crossing but NOT falling under C-1
- C-6 Trains NOT carrying passengers running into road traffic and/or road traffic running into such trains at manned level crossing but NOT falling under C-2
- C-7 Trains carrying passengers running into road traffic and/or road traffic running into such trains at unmanned level crossing but NOT falling under C-3
- C-8 Trains NOT carrying passengers running into traffic and/or road traffic running into such trains at unmanned level crossing but NOT falling under C-4.
- C-9 Shunting engine with or without vehicles or loose vehicles running into road traffic and/or traffic running into shunting engine with or without vehicles or loose vehicles, at level crossing.

NOTE: If a road vehicle is not capable of being physically cleared off the track promptly by single person operating it, it should be termed as road traffic for the purposes of classifying such an accident as a train accident, irrespective of its mode of traction.

Class “D” - Derailments

- D-1 Derailment of a train carrying passengers resulting in
 - i) Loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property of the value exceeding Rs. 2 crores and/or
 - iii) Interruption of any important, through line of communication for at least 24 hours.
- D-2 Derailment of a train NOT carrying passengers resulting in
 - i) In loss of human life and/or grievous hurt and/or
 - ii) Damage to Railway property of the value exceeding Rs. 2 crores and/or
 - iii) Interruption of any important through line of communication for at least 24 hours.
- D-3 Derailment of a train carrying passengers and NOT falling under D-1 above
- D-4 Derailment of a train NOT carrying passengers and NOT falling under D-2 above but loss to Railway property and/or interruption to traffic is more than the threshold value.
- D-5 Derailment of a train NOT carrying passengers NOT falling either under

D-2 or D-4 above.

- D-6 Other derailments, i.e. derailments occurring in shunting, marshalling yards, loco yards and siding etc. but not involving a train.

Class “E” - Other Train Accident

E-1 Train running over or against any obstruction including fixed structure other than included under class “C” resulting in

- i) Loss of human life and/or grievous hurt and/or
- ii) Damage to Railway property and/or
- iii) Interruption to traffic is more than the threshold value

- E-2 Trains running into any obstruction including fixed structure but NOT covered up under Class “C” or “E-1”.**

INDICATIVE ACCIDENTS

Class “F” Averted Collisions

- F-1 Averted collision between trains at least one of which is carrying passengers.**
- F-2 Averted collision between a train carrying passengers and an obstruction.**
- F-3 Averted collision between trains NOT carrying passengers.**
- F-4 Averted collision between trains NOT carrying passengers and an obstruction.**

Class “G” - Breach of Block Rules

- G-1 Trains carrying passengers, entering a block section without any authority or without a proper “Authority to Proceed”**
- G-2 Trains NOT carrying passengers, entering a block section without any authority or without a proper “Authority to Proceed”**
- G-3 Trains received on a blocked line, not constituting an averted collision.**
- G-4 Train received on or entering a wrong line at a station or Catch Siding or Slip siding or Sand Hump etc.**

Class “H” - Train passing signal at danger

- H-1 Train carrying passengers running past a “stop” signal at danger without per authority.**
- H-2 Train NOT carrying passengers running past a “stop” signal at danger**

without proper authority.

EQUIPMENT FAILURES

Class “J” - Failure of Engine and Rolling Stock

- J-1 Failure of engine hauling a train carrying passengers.
- J-2 Failure of engine hauling a train NOT carrying passengers or light engine.
- J-3 Parting of train carrying passengers.
- J-4 Parting of a train NOT carrying passengers.
- J-5 Failure of Rolling Stock such a failure of tyres, wheels, axles, or braking apparatus etc. on a passenger carrying train leading to detachment of rolling stock / stocks from the train.
- J-6 Failure of Rolling stock such as failure of tyres, wheels, axles, or braking apparatus etc. on train NOT carrying passenger leading to detachment of rolling stock/stocks from the train.
- J-7 Failure of Rolling stock such as failure of tyres, wheels, axles, or braking apparatus etc. on passenger carrying trains, not leading to detachment of rolling stock / stocks from the train.
- J-8 Failure of Rolling stock such as failure of tyres, wheels, axles, or braking apparatus etc. on train not carrying passengers, not leading to detachment of rolling stock / stocks from the train.
- J-9 A train or a portion of a train running away, out of Control.
- J-10 Poor brake power in a train but NOT covered in class J-9.

Class “K” - Failure of Permanent Way

- K-1 Buckling of Track:
- K-2 Weld Failure:
- K-3 Rail Fracture:
- K-4 An unusually slack or rough running or heavy lurch experienced by Loco pilot of running trains while passing over any length of permanent way leading to blockage of communication.
- K-5 Failure of Railway tunnel, bridge, viaduct/formation/cutting and culvert etc.
- K-6 Damage to track of such a nature other than those covered under Class K-1 to K-5 so as to render it temporarily unsafe for passage of trains or likely to cause delay to traffic for period above threshold value.
- K-7 Damage to track of such a nature as to render it temporary unsafe for the passage trains or likely to cause delay to traffic not covered up under

class K-1 to K-6.

NOTE: In above classification, those cases detected during regular maintenance and not affecting train movement will not be counted.

Class “L” - Failure of Electric Equipment

- L-1 Snapping off or any damage to OHE wire requiring switching off of OHE for more than three minutes.
- L-2 No tension in OHE for more than three minutes.
- L-3 Pantograph entanglement not covered up under J-1 and J-2.
- L-4 Defect in AC or other electrical equipment leading to detachment of a rolling stock/s from a train.

Class “M” - Failure of Signaling and Telecommunication

- M-1 Failure of part of complete panel RRI.
- M-2 Failure of interlocking / track circuit or axle counter.
- M-3 Failure of Block Instruments.
- M-4 Failure of point machine and equipment
- M-5 Failure of signal/point.
- M-6 Failure of control/station communication for more than fifteen minutes.
- M-7 Failure of control / station or station to level crossing gate communication for more than fifteen minutes.

NOTE: Signal / Point and Telephone failure which were not informed to S & T department will not be taken into account for failure.

UNUSUAL INCIDENTS

Class “N” - Train Wrecking

- N-1 Attempted wrecking of or sabotage to a train carrying passengers.
- N-2 Attempted wrecking of or sabotage to a train NOT carrying passengers.
- N-3 Attempted sabotage or tampering with track NOT involving any train.

Class “P” - Casualties

- P-1 Person or persons falling out of a running train resulting in loss of human life or grievous hurt.
- P-2 Person or persons run over or knocked down by a train resulting in loss of human life or grievous hurt.
- P-3 Person or persons falling out of a running train or knocked down by a

train or engine or railway vehicle, not resulting in loss of human life or grievous hurt.

Class “Q” - Other Incidents

- Q-1 Accidental or natural death or grievous hurt to any person whether passenger, railway employee or tress passer (or any other person), within railway premises (excluding railway quarters).
- Q-2 Murder or suicide in a train or within railway premises.
- Q-3 Robbery, attempted robbery, theft or attempted theft in railway premises including trains.
- Q-4 Fire or Explosion within Railway premises but not involving trains.
- Q-5 Fire or explosion resulting in damage to Railway bridge and viaduct etc.
- Q-6 Blockade to train services due to agitation.

Class “R” - Miscellaneous

- R-1 Vehicle or vehicles running away.
- R-2 Train running over cattle.
- R-3 Floods, Breaches, and landslides, etc. resulting in interruption of an important through line of communication more than the threshold value.
- R-4 Other cases of Floods, Breaches, landslides etc. resulting in interruption to traffic.
- R-5 Any accident not included in the foregoing classification.

NOTE: (1) The term “cattle” does not include sheep, goats, pigs, dogs, donkeys, rams, ewe and lambs.

(2) A train includes a trolley, lorry, motor trolley, when worked under the rules for working of trains.

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CHAPTER - 4

REPORTING OF ACCIDENTS AND OTHER OCCURANCES

401. Prompt Information by all Railway Servants:

Every Railway Servant shall report with least possible delay every “Accident” or “Unusual Occurrence” in the course of working a Railway which may come to his notice to the nearest Station Master, or, where there is no Station Master, to the railway servant in charge of the section of the railway on which the accident has occurred, through any or more of the following any possible means:

- (a) Portable control telephone / walkie - talkie set/ VHF set / mobile phone;
- (b) Phone provided at level crossing gates;
- (c) Bystopping train / Loco / trolleys or other vehicle passing on adjacent line;
- (d) By BSNL / MTNL / phone if available nearby the site of accident;
- (e) By sending message through a railway servant to the nearest SM;
- (f) Sending the light engine of the train, before detaching the engine, SR 6.09.1 should be followed. However in case of suspected sabotage, engine etc. should not be disturbed; or
- (g) By road transport, if available.

402. First Information Report: Following particulars should be given in First Information from the site of accident:

- (a) Time and date of accident.
- (b) Train No. and description of Train / Trains.
- (c) Block section / station location, kilometerage/ OHE mast Nos of accident site.
- (d) General description of accident site.
- (e) Whether Medical van and Break Down train are required?
- (f) Brief description of accident - nature of accident.
- (g) Whether there is any casualty / injury - number of persons injured / killed, whether injury is to passengers, Railway staff or others.
- (h) Whether any derailment has occurred? In case of wagons derailed / capsized, whether loaded or empty, whether fouling adjacent track or not? If not fouling, whether required any speed restriction for passage of any train on adjacent line and any other information which is readily available.
- (i) Track condition: Track length (approximate) damaged (from km to

km). Extent of damage i.e. damage to sleepers, track fittings, bridge, tunnel, fixtures etc.

- (j) OHE – Damage to Mast /Portal cantilever, wires, insulation etc.
- (k) S & T - Damage to signal posts, S & T gears, signals, points & crossings, track circuits etc.
- (l) Rolling Stock - Damage to loco, wagons, coaches or any other vehicle.
- (m) In case of level crossing accident - The type of road vehicle such as Tractor or Bus etc. involved and number of persons injured / dead and the nature of injuries. Whether the engine is disabled and whether any derailment has taken place. Whether road vehicle is entangled / obstructing the track.
- (n) Prima facie cause of the accident, if known.
- (o) Any other relevant information.

NOTE: (i) In case of accidents involving passenger trains and accidents at level crossing gates, the first information must be very prompt and precise.

- (i) The casualty / injury if any, must be specifically stated.
- (ii) In case of fire the following additional information must be given:
 - (a) Coach or wagon No.
 - (b) Material involved in fire, if known.
 - (c) What was used to extinguish fire.
 - (d) Time the fire extinguished.
 - (e) Additional fire extinguishers required if any.

403. Communication by the SM/ In charge of the section receiving advice of an accident:

The SM on receiving information of any accident shall immediately take action for:

- (i) Advising the section controller regarding the accident, the nature of the medical assistance and Mechanical rescue equipment required and assistance being arranged locally. In case of failure of control communication, the SM shall contact Area Supervisor or AOM/ ASO or RRM or any other regional officer on telephone using CUG Mobile, BSNL Land Line phone. In case any telephonic

communication is not available the SM or official concerned may also hire a vehicle to send the message to the nearest place from where information can be conveyed to Control Office / Railway Officers.

- (ii) Alerting the local doctors and hospitals as per the list available in his office for providing immediate medical aid to the injured passengers. In case of fire, fire brigade should be informed.
- (iii) Informing local or nearest RPF and Police officials to provide protection to the site of accident and render assistance to the injured and stranded passengers.
- (iv) Information regarding consequential train accident, any yard accident and Land slides, breaches, OHE breakdown etc. which result in dislocation of traffic more than the threshold value as indicated leading to serious repercussion shall be reported by station Master to Central Control..

404. A) Action to be taken by Section Controller: Immediately on receipt of the information about an accident, the Section Controller shall:

- a) Note the time and date of accident and the name of the person giving first information and brief particulars of accidents as per the format given in appendix.
- b) Advise the Dy. CHC / CHC and note down important details of accident in his daily diary.
- c) Obtain further information from the person giving information of accident and remain in constant touch with site.
- d) Advise the sectional AS, SSE/SE (P.Way), SSE/SE (S & T), SSE/SE (C & W), CLI/LI and SIPF, if necessary.
- e) Advise SM on either side of affected section to keep loop lines clear for movement of SPARM & MFDTV/ART.

404. B) Action to be taken by Dy. Chief Controller/Chief Controller: Immediately on receipt of the information about an accident, the CHC / Dy. CHC shall immediately:

- i) Chief Controller shall advise all concerned officers, Supervisors and Inspectors. Medical Superintendent / Doctor in charge should be advised first of all, in case of accidents involving injuries / casualties, SPARM & MFDTV / ART should be promptly ordered. Power Controller should be consulted about the nature of the accident and assistance required. Officers on line on the affected section and nearby section

such as officers travelling by trains, trolleys, etc. should also be advised.

- ii) Prompt information should be given to adjacent Divisions / Railways, for regulation of traffic. Telephonic advice should be followed by recorded messages.
- iii) Failure of Track and OHE Maintenance Machines : All the failures of track and OHE maintenance machines should also be reported to Central Control / Traction Power Control (TPC) by Regional control offices. Monthly summary of these failures should be submitted by concerned department to safety branch at regional and HQ level.
- iv) The control shall keep record of the information in the Accident Register in the prescribed proforma and inform CMO (in case of casualties). COM, CCM, CTM, CSO/Dy. CSO, D(O&C), CMD, D(W&W), DF, CME, CE, CEE, CSTE, CSC & CPRO.

NOTE: (i) In case of accidents involving injuries, the CMO shall be advised first of all.

(II) In case the HODs are not available, the nominated DY. HOD of the departments concerned shall be advised. It will be the duty of the officer who has been informed to take further action and advise all concerned officers of the department.

405. Report to the Commissioner of Railway Safety: In case of accidents falling under section 113 of Railway Act 1989 the CRS shall be promptly informed about the accident by CSO/Dy.CSO or in their absence by COM/Dy.COM

406. Information to the Press by the Public Relation Dept.: In the case of serious accidents resulting or likely to result in cancellation, diversion or long detention to passenger trains the Public Relation Officer should brief the press and other media from time to time. The information should confine itself to the following:

- i) Time, date and locality of the accident.
- ii) General nature of the accident (no cause being given)
- iii) Number and description of train involved.
- iv) Duration of interruption of traffic and nature of temporary measures taken to regulate/divert/cancel train services, stating whether transshipment is necessary.

- v) Number of persons killed and injured (as far as known) with their names and addresses.
- vi) Relief measures being taken.

Note: i) As litigation may arise from an accident and use may be made of press reports in suits brought against the Railway, greatest care must be taken in framing the press release / report.

- ii) The dissemination of news about accident to local trains which will ordinarily be of interest only in specific localities should be done by the Regional Railway Manager by transmitting the required information to the local press telephonically or as quickly as possible.
- iii) If any Newspaper Agency or any Public Body approaches the Station Master or any other Railway Official at any Station the request should be communicated to the officer in charge in the Control Office / Central Control Office and his instructions should be obtained.
- iv) Staff should not speak or air their views publicly regarding the loss of property or estimates of casualties. Even casual remarks from staff such as Guards, Loco pilot and Station Masters are likely to be quoted. They should refrain from such casual utterances.

407. Check list of information to be conveyed to Board on phone: Apart from brief description of accident, casualties, extent and cost of damage, relief measures, prima facie cause and expected time of restoration, information as per following check list may be collected for onward transmission to the Board.

I. COLLISIONS:-

(A) Collision at Station:

- i) Classification of the station.
- ii) Type of signals and standard of interlocking and track circuiting.
- lii) System of line nomination for reception (Line labels and badges keys etc. or line nomination book etc.)

(B) In Mid-section:

- i) Whether flasher light of the engine was in working order?
- ii) Whether there was enough margin for protection of the train and what protection was done?

(C) Collisions where Loco pilot may be prima-facie responsible for the accident, passing signal at danger, not observing precautions after passing an automatic signals at danger or losing control of the train.

- i) Loco pilot's duty hours, time of signing on, originating station, rest availed at headquarter/out station. Details of Learning Road of the section.
- ii) Result of Breathalyzer test (a) at originating station (b) after the accident.
- iii) Bio-data of the Loco pilot i.e. date of birth, date of appointment, educational qualification, date of promotion as a Loco pilot, date of last Refresher course passed, whether in possession of competency certificate, date of last medical examination, involvement in past accidents with punishments, his performance index and card.
- iv) Brake power of the train as certified in vacuum/air pressure certificate and as found after the accident station where last intensive examination was done.
- v) Number of signals passed at danger.
- vi) Loco pilot's version as ascertained through his interrogation by RRM or any other senior officer.
- vii) Any other feature contributing to the accident.

(D) Where SMS/ASMS may be prima-facie responsible.

- i) Duty hours of the staff with last rest availed.
- ii) Bio-data on the similar lines as in case of the Loco pilot.
- iii) Working experience (since when working at the station).
- iv) Whether any abnormal working was being done for movement of trains? If yes,

Frequency of such abnormal working/bypassing rules/shortcut method adopted by staff, Dis-connection /Re-connection memo issued, procedure of handing over of relay room key followed or not etc.
- v) Whether the staff was in state of intoxication?
- vi) When was last inspection of the station done by the Safety / Operating Officers and Area Supervisor?

(E) Where signaling staff is prima-facie responsible.

- i) Nature of defect / fault.
- ii) Any evidence of short cut method for maintenance / repair of the equipment.
- iii) Date of last overhauling of Block instruments.

II. DERAILMENT:

- (A)** If the derailment is as a result of Loco pilot's passing signal at danger, the information regarding the Loco pilot as required in case of collisions, shall be given.
- (B)** Curve, Gradient (Rising/Falling), alignment whether cutting. In case of derailment at station whether point is involved (facing or trailing), in loop line or main line.
- (C)** If the prima-facie cause of the derailment is rolling stock the following information is to be furnished.
 - i) POH/ROH particulars of the wagons.
 - ii) Originating station.
 - iii) Station where last examination done.
 - iv) Whether it was possible to detect hot axle, roller bearing seizure by the station staff exchanging alright signals?
 - v) Date and shop where ultrasonic testing of the axle was last done (in case of axle breakage).

III. LEVEL CROSSING ACCIDENTS:

- i) Classification of the gate and location.
- ii) Curve, Gradient (rising, falling), cutting if any nearby.
- iii) Normal position of the gate. Whether gate signals, interlocking lifting barriers telephone and other safety aids are provided Number of gatemen in 24 hours. (In case of manned level crossing only).
- iv) Condition of the visibility for both rail traffic and road user Distance to be advised in meters.
- v) Whether the head light of the engine was ON?

- vi) Any accident at the level crossing during the last two years.
- vii) Any other special feature.

NOTE: Details of persons (Passengers, Railway Staff and others including road users), if any injured/dead - name and address if known and details of medical aid shall be given in case of all type of accidents.

408. Reporting of Accidents to Railway Board:

- (a) A telephonic advice should be relayed to nominated officer in Railway Board's Office immediately after the accident in case of following categories of accidents: -
 - (i) All consequential train accidents.
 - (ii) Any yard accident having serious repercussion on movement of traffic on through / main line resulting in dislocation of traffic more than the threshold value as indicated above.
 - (iii) Landslides, breaches, OHE breakdown etc. which result in dislocation of traffic more than the threshold value as indicated above.

In addition to this, periodic (monthly) statement of accidents in all categories shall be submitted to Railway Board in prescribed proforma.

Note: i) When Parliament is in session, complete information in respect of any accident or unusual incident, which causes serious dislocation to passenger and goods traffic and which does not fall under the accidents reportable to the Board on telephone but is likely to attract the attention of the Members of Parliament, is also to be reported to Board's Office telephonically.

- ii) The advice to the Board will be given by the CSO/Dy.CSO. In case he is not available the Railway Board shall be advised by COM/Dy.COM
- (b) Timely information of serious consequential train accidents shall be provided to CRB by CMD by phone followed by SMS as per template.

Initial Message	<ul style="list-style-type: none"> • Type of accident: Derailment Consequential) • Date/Time: 29.08.2017/06.35 • Railway: Central Railway • Division: Mumbai CST,
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	<ul style="list-style-type: none"> • Section: Igatpuri-Kalyan (BG,DL,Elect.,A Route, Absolute) • Location: Bet. Asangaon and Vasind; At km 83/300-500 • Train No.: 12290 Up Nagpur-Mumbai CST, Duranto Exp. • Load: 21 Coaches • Description: Train Engine+09 Coaches (next to Train Engine) of 12290 Up derailed (out of which 05 Capsized) at km 83/300-500 bet. Asangaon and Vasind stations. • Up and Dn. lines blocked. • Suspected casualty:
Relief Arrangement update	<p>SPARMV/Kalyan ordered/ __. __ hrs, left/ __. __ hrs, site arrl./ __. __ hrs.</p> <p>ART/Kurla ordered/ __. __ hrs, left/ __. __ hrs, site arrl./ __. __ hrs.</p> <p>Officers visiting site:</p> <p>Stranded passengers' clearance and arrangements (In case of Passenger Train derailment)</p> <p>Prima-facie Cause:</p>

409. **Priority list and Officers of Railway Board to be informed :** The advice shall be passed on to one of the following officers of the Railway Board in order of priority as indicated below as soon as possible:-

1. Safety Control
2. Executive Director Safety - II (In the absence, ED (Safety -III) shall be informed)
3. Principal Executive Director Safety

410. **System for reporting of accident to Railway Board:**

- a) In case of consequential train accident and any yard accident leading to serious repercussion, Chief Safety Officer / Dy. CSO should thereafter inform nominated officer of Safety Directorate of Railway Board.

- b) In case of land slide, breaches, OHE break down etc. which result in dislocation of more than threshold value and also cases due to public agitation shall be reported by Headquarters Control Office to Punctuality Cell of Railway Board and dealt with by the Coaching Directorate.
- c) Cases falling under N, P and Q except Q-6 i.e. blockade of train services due to public agitation; shall be dealt with by Security Directorate.

411. **Detailed Report to the Railway Board:** The advice referred to in the above Para may be required to be followed by a detailed report which should be prepared at the earliest.

412. **Regular Feedback from site to Control office to Headquarters Control and Headquarters to Railway Board:**

After obtaining and giving the preliminary information, the senior-most Official at site shall arrange to collect and convey the detailed information about progress of relief arrangements, restoration and investigation.

The senior-most officer at the site must give regular feed back to the Control for the information of the CMD, Directors and other HODs in the form of proper telephonic messages which shall be recorded in the log books at site, in nominated stations and in the Control to avoid any confusion / discrepancy. Wherever possible the senior most Officer at site should personally contact the Regional Officers and Officers of Corporate Office on Phone and brief them. The message should indicate:

- (i) Prima facie cause of accident,
- (ii) Approximate extent and cost of damage to Railway property,
- (iii) Number of injured / dead,
- (iv) Relief arrangements made,
- (v) Progress of restoration work.
- (vi) Probable time of restoration, and
- (vii) Assistance required if any.

413. **All concerned accident message to be sent by the Station Masters:** The Station Master shall issue all concerned messages at the earliest opportunity. The Station Master of the Station nearest to the site of Accident is the reporting authority for all accidents under the rules. The presence of a superior officer does not absolve the Station Master of his responsibility. On a station of the Railway where there is no Station master, Railway servant in charge is responsible for carrying out the duties of Station Master.

414. **Detailed Report to be sent to the COM.:** In case of serious accident as defined under the rules the Senior most Officer at site shall also send a detailed report by name to COM within three days of the Accident by quickest possible means. Facility of 'FAX' may be utilized.
415. **Report to Railway Claim Tribunal by Commercial Department :** The reports containing the names and addresses of the injured victims or persons deceased shall be dispatched to the Principal Bench of the Railway Claims Tribunal. Wherever the names of next of kin of the deceased passengers are known, the said information shall also be furnished to the Principal Bench of the Railway Claims Tribunal.
- It shall be the duty of the Railway Administration forward the names of injured victims or the persons who died in a railway accident to the Principal Bench of the Railway Claims Tribunal for rendering appropriate legal aid for obtaining compensation in the manner provided under the Railway Claims Tribunal Act and to that end, wherever information is available the names of next of kin shall also be furnished to the Principal Bench of the Railway Claims Tribunal.
416. **Accident falling in more than one class:** In the event of an accident falling under more than one class, it must be reported under the higher class.
417. **Reclassification of Accidents:** If after the issue of the all concerned accident message further information becomes available to show that the accident has been wrongly classified, a fresh all concerned message must be issued.
418. **Rules for the preparation of accident returns:**
- i. Accidents to trains shall be accounted for by the Railway which exercise jurisdiction over the site of accident. Engine failure shall be accounted for by the Railway owning the engines.
 - ii. A train intended solely or partly for the carriage of passengers shall be treated as the passenger train. All other trains will come under the category of "other trains".
 - iii. Statistical returns in the prescribed proforma showing cumulative data till the end of the month should be submitted so as to reach Board's Office not later than 7th day of the next month.
 - iv. Only those accidents which have occurred during the period to which the returns relate shall be included in the relevant returns. With regard to accidents where details are not available at the time of forwarding the returns for any reason, such accidents are to be included in the statement with a clear indication that further details would follow.

- v. Each accident must be shown only once and in the event of an accident falling in more than one category; it should be treated as an accident in the higher category.
- vi. Derailments or bumping during reversing or shunting operations etc. on an incoming, outgoing or any other load, including a sectional carriage, etc. shall be deemed to be a “train accident” only when the train engine or a vehicle still forming part of the train, derails or as a result of bumping casualty (including injuries) or loss to Railway property takes place, irrespective of whether the shunting was being done by the train engine or by a shunting engine.
- vii. Interruption is defined as duration from the time of accident till starting of first train on line clear from adjacent station for movement over the affected line in that section. The movement of first Commercial Train (Goods or Passenger) shall be reckoned for the purpose of considering the restoration after an accident as complete. A time frame of 30 minutes has been laid down within which the first commercial train should start on the line clear from for the movement over the affected line. Cases of movement of commercial Train after 30 minutes of fitness of Track/OHE shall be categorized as delay in restoration of traffic. In case, there is no Commercial Train available to be run on that section after Track Fit / OHE Fit, an exception may be made at the level of COM who shall certify that there was no ‘Commercial Train’ to pass over the affected section within 30 minutes of Track Fit/OHE Fit.
- viii. Statistics of fire should include all cases of physical fire or smoke emission resulting in death or injury or damage to property amount to Rupees 50000 and above.
- ix. Equipment failures shall include all failure irrespective of date of last schedule or examination and shall be subsequently classified under avoidable or unavoidable category.
- x. Details and Statistics for accident cases falling under “Unusual Incident” categories “N”, “P” and “Q” shall be maintained and provided by Security (RPF) Branch.

419. Collection, Compilation and Monthly statement of Accident Statistics:

- a) Information about train accidents, yard accidents and indicative accidents falling under classification, A, B, C, D, E, F, G and H will be compiled by the Safety Branch at Region and HQ.
- b) Equipment failures falling under classification J, K, L and M will be compiled by the control on daily basis and shall be handed over to

Safety Branch. Every equipment failure shall be classified under the category of avoidable and unavoidable by the branch officers concerned. Chief Safety Officers shall forward monthly statement to the safety Directorate of Railway Board.

- c) Unusual incidents falling under classification N, P and Q shall be collected and compiled by the security (RPF) Branch and forward monthly statement to Chief Safety Officer. Chief Safety Officer shall forward monthly statement to the Safety Directorate of Railway Board.

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CHAPTER - 5

DUTY LISTS AND CHECK LISTS

The brief check lists of duty in connection with the serious accidents are given in the following pages. The duty lists are not exhaustive. The various officials may keep a more detailed check list which should be updated from time to time. In case absence of a senior officer, the duties will devolve on the next officer or the senior subordinate / Inspector of the Department.

501. Important Duties of Guard in case of an accident: At the time of an accident the Guard of the train must immediately:

- 1) Note the date / time and exact site of the accident.
- 2) Ensure securing of vehicle with wooden wedges and hand brakes. Protect the adjacent line/lines and then protect the same line in accordance with GR-6.03 and SR-6.03.1 taking the assistance of any qualified staff, such as, Assistant Loco pilot, Trackmen, Gatemen etc.
- 3) Make a quick survey of the Casualties, injuries and damage to the rolling stock and assistance required at the site of accidents and advice nearest SM or Controller.
- 4) Render First Aid to injured persons and take action to save lives with the assistance of the Railway Staff, doctors and/or volunteers on the train or near the site of accident and make entry in the Guards Journal.
- 5) Convey information through the quickest possible means giving details of the accident and the nature of assistance required to the Controller/Stations on either side as mentioned in para 402 of this Manual. In case the train engine of the disabled train is to be detached, the provisions of SR.6.09 (1) must be complied with before detaching the engine.
- 6) Arrange to shift the seriously injured passengers through road transport with local help to nearest hospitals whenever possible.
- 7) Arrange for Tea, Water and Refreshments to injured persons with the help of Ticket checking Staff and other commercial staff available.
- 8) Preserve and Safe-guard all clues of probable cause of accident.
- 9) Arrange protection of belongings of passengers and Railway property with the help of RPF/GRP and other Volunteers.

- 10) Post a Railway Servant to man the field telephone to ensure regular flow of information to the Control till arrival of ART and remain in general charge till replaced by a Senior Railway Official.

502. Important duties of Loco pilot and Assistant Loco pilot in case of an Accident : At the time of a accident the Loco pilot and Assistant Loco pilot must immediately:

- 1) Switch on the flasher light of the engine and switch off the head light of the engine.
- 2) Sound short whistles frequently to warn the Loco pilot of an approaching train.
- 3) Arrange to protect the adjacent line and then the same line in accordance with GR-6.03 and SR-6.03(1). Information should be exchanged with Guard on walkie-talkie set or other means available.
- 4) Arrange to advise control and adjacent stations about the accident by available means.
- 5) Take such technical precautions as may be necessary or as prescribed by special instructions to make the train safe.
- 6) Render all possible assistance to the Guard particularly, in the assessment of damage to rolling stock and or locomotive and the nature of assistance required.

503. Duties of Staff in the event of the Guard or Engine Crew being killed or seriously injured: In the event of any train staff suffering casualties or incapacitated, due to injuries their duties must be carried out by other available competent staff.

504. Duties of railway officials present: Until such time as relief and assistance arrive, and he is replaced by more senior official, the senior most Railway Official present must take charge. He must ensure that the accident has been reported properly to the Controller or the nearest Railway official and relief, if required, is asked for and arrange to:-

- 1) Collect Railway men and volunteers at the site;
- 2) Allot duties to each as best as possible under the prevailing circumstances;
- 3) Allot duties to Police, Military and the Railway Security staff, and
- 4) Organize relief with the assistance of volunteers.
- 5) Joint measurements.

505. Duties of Train Superintendents / TTEs / Catering Staff at site:

The Train Superintendents / TTEs and other Ticket Checking Staff and Catering Staff shall be available at site for all assistance to passengers of the involved train and they shall :-

- 1) Be prompt in providing staff, re-assurance and comfort to the affected passengers.
- 2) Seek assistance of Doctors traveling on the train to attend the injured.
- 3) Arrange for refreshments and drinking water free of charge to the affected passengers.
- 4) Give timely information to the passengers.
- 5) Collect details of the dead / injured passengers.
- 6) Record evidence of passengers with their names and addresses.
- 7) Arrange for safeguard of Railway and Passengers property.
- 8) Assist other railway staff and the Medical Team to identify the dead and rendering first-aid to the injured passengers.

506. Duties of Station Master in the case of Accidents: If an accident comes to the notice of the Station Master, he shall immediately:

- 1) Ensure that no other train enters the affected section. On double line, he must lock the commutator of the block instrument controlling the affected section in "Train on Line Position".
- 2) Advise the Controller, the nature of medical and other assistance required. if the control phone is out of order, the RTM/AOM/ASO or the CHC must be advised on the /Railway Phone/ CUG Mobile Phone /public phone or by other means available. The Station Master of adjacent station and other major station should also be advised accordingly.
- 3) Take action to protect and safeguard Railway and public property.
- 4) Collect medical aid, if required, locally from the nearest hospitals, dispensaries and doctors. In order to convey medical help to the site of the accident, trolleys may be sent out and train engines utilized or outside conveyance requisitioned, if necessary. In this connection, he must requisition help from the local police, Revenue officials and Magistrate.
- 5) Report the accident to all concerned as prescribed in rules.

- 6) Call all the off-duty staff and allot them specific duties for relief and rescue.
- 7) Arrange to provide all sort of assistance to the affected passengers such as catering, drinking water, issue of complimentary passes, free messages to relatives etc.
- 8) Open information counters and booths for giving information to the public regarding names of the injured/dead passengers and regulation/ diversion of trains etc. STD booths located at stations/ adjacent areas should be utilized for giving relevant information.
- 9) Arrange for whatever assistance is required in connection with clearing arrangements, transshipment etc. and provide lights, refreshments, manual help and any other requirements which can be procured within his resources.
- 10) Arrange for the section to be cleared of unaffected vehicles as early as possible but if the accident is attributed to sabotage or suspected sabotage he shall not do so, but wait for instructions from the officer in charge at site or till local police officials reach the site and permit to attend the damaged track.

507. Duties of Station Master of Adjacent Station: On getting information of accident, the SM of the adjacent station shall ensure that no other train enters the affected section and take other necessary measures for protection of the site and perform all other duties as given in above Para 506.

508. Duties of Section Controller: On getting information of an accident on his section he shall immediately:

- 1) Note the time of first information received and also the name of the person giving the information.
- 2) Alert the adjoining station to stop entry of any train in the effected section.
- 3) Inform Dy. CHC on-duty immediately to order ARM & MFDTV and / or Break down trains.
- 4) Arrange for a clear passage to these trains giving them precedence over all other trains. No detention should be permitted to the Medical Van and/ or Break down trains on any account.
- 5) Apprise the Dy. CHC of the available particulars of the accident and the nature of assistance required.
- 6) Advise the SM of the nearest important station of the accident and

instruct him to proceed by first means to the site of accident unless the Area Supervisor is available to go within the same time. The former must remain there in general charge until relieved by a Area Supervisor or Officer.

- 7) Obtain further details with regard to the extent of damage so that necessary equipments, men and material can be arranged for the site of the accident.
- 8) Start a chronological log of the events of the accident.
- 9) Obtain forecast from a responsible official at site for clearing the track and the additional time if any for repairs to the P. Way and other structures to assess the availability of the line for traffic.
- 10) Regulate trains on the section as required, keeping loop lines clear on either side of the affected section for break-down and evacuation operations. Mail/Express and Passenger trains should be regulated at such stations where adequate catering and communication arrangements are available.

**508. (A) CHECK LIST FOR CHIEF TRAIN CONTROLLER / DY.CONTROLLER
REPORTING OF ACCIDENTS**

Protocol for reporting of First Information of an Accident on Konkan Railway will be as Follows:- Who will report	First Information to be reported to	Remarks
Dy.CHC	1. COM/Dy.COM 2. D(O&C) 3. CMD	COM/Dy.COM will ensure that Dy.CHC has taken correct action for ordering ART/Self-propelled ARM & MFDTV
Controller (North Board)	CMO in case of passenger train accident suspecting casualty /injury 2. CSO/Dy.CSO 3. RRM's	CSO/Dy.CSO will pass on this information to CRS and also to Railway Board, if considered necessary.
Controller (Middle Board)	1. CTM 2. CPRO	
Controller (South Board)	1. DF 2. FA & CAO	On receipt of information about the accident while ordering breakdown train, Dy.CHC will simultaneously inform S & T Control, Engg. Control, Traction Power Control, Security Personal and the Commercial Control about the accident so that the respective officers from their department can separately intimated by them.
S & T Control	CSTE 2. CEE Any other officer desired by CSTE/CEE	
Engg. Control	CE 2. D(W&W) Any other officer desired by CE	
Security	CSC	
Comml. Control	1. CCM 2. Dy. CCM	
Power controller	1. CME 2. Dy.CME	

IT Controller	1. CMIT 2. Dy. CMIT	
SM/RN/ (after ordering SPARM & MFDTV)	SMO/MO/RN& CHI (in case of passenger train accident/ casualty/ injury) 2. AOM/RN 3. RRM/RN Other officers as desired by RRM	SM will ensure sounding of siren so that all officers and staff come to know about the accident, who in turn will check-up with the SM about the accident.
SM/VEN (after ordering ART / Self propelled ARM & MFDTV)	SMO/MO/VEN/(MAO) (in case of passenger train accident/ casualty/ injury) 2. RTM/AOM/MAO 3. RRM/KAWR 4. AOM/SS/SM/MAO SM/KAWR- for informing other Regional Officers.	

- (A) Dy. CHC on duty will inform all on duty controllers of service department.
- (B) Available following information is to be conveyed briefly while reporting first information regarding the accident (not more than one or two minutes):
- (i) Train / Trains involved
 - (ii) Type of accident
 - (iii) Kilometer of location
 - (iv) Between stations
 - (v) No. of coaches / wagons derailed
 - (vi) Whether any casualty reported
- (C) Dy. CHC will maintain LOG book keeping details of the time when the information was received and the time it was reported to particular officers.
- (D) In case of major accident, an off-duty Dy. CHC and Time Table Controllers will be called immediately to maintain the log book. The staff entrusted with the job of keeping log book will perform this duty assiduously and sincerely.

509. Duties of Chief Controller: On getting information of an accident he shall immediately take Supervisory charge of the affected section and ensure that:

- 1) Advice of the accident has been sent to all concerned.
- 2) Medical relief is arranged as promptly as possible.
- 3) Injured passengers are transported to the nearest hospitals promptly as per instructions of the Sr.MO/MO.
- 4) Arrangements are made for onward journey of the passengers.
- 5) Transshipment arrangements are made for passengers and their luggage, regulation of traffic on either side of the site of the accident is done correctly.
- 6) Passenger trains are regulated at such stations where catering and drinking water facility is available.
- 7) Information of all changes in trains timings, diversions / cancellation of trains are given to concerned stations in time for information of public.
- 8) Adjacent divisions and / or Railways concerned are advised regarding changes in traffic pattern.
- 9) Assist the COM/Dy.COM/ CTM/Dy.CTM or the Officer who takes charge of the Control Office.

510. Duties of Operating Official:

On getting information of an accident, he shall proceed to the accident site by quickest means. He shall -

- 1) Take with him trolleys, porters, torches, vendors, all available medical equipment and any other equipment that he considers necessary.
- 2) Arrange to get names, addresses and ticket particulars if any, of the passengers injured and dead, details of injuries and render assistance to the injured with the help of commercial staff.
- 3) Collect the statements from the staff involved in accident, make arrangement for breathalyzer test and medical examination of the Loco pilot involved in the accident.
- 4) Be responsible for regulating the traffic, attending the injured, making a note of all evidences, which may prove useful in ascertaining the cause of the accident, and taking general charge of the accident site till the arrival of an officer.

- 5) Arrange for photographs and videography in all cases of serious accidents especially when sabotage is suspected. If, however, the accident is suspected to be the result of sabotage, none of these objects must be disturbed until the police has opportunity of making a through examination.
- 6) Ensure in the case of a serious explosion or conflagration caused by explosives or dangerous goods, all wreckage and debris must be left untouched except, in so far as its removal may be necessary for the rescue of injured persons and the recovery of dead bodies, until the Chief Inspector of Explosives or his representative has completed his inquiry or intimated that he does not intend to make any investigation.
- 7) Obtain written evidences from as many independent witnesses as possible where a passenger train is involved in the accident. He should pass on such information to the Officer in charge at the site.
- 8) Seize the relevant record i.e. speedometer, diary, caution orders, train signal register, private number sheets, line admission book etc. and if necessary, statements of the staff concerned must be recorded; if line badges are in use, it should be recorded in whose possession such line badge concerned was.
- 9) Collect the following information with the assistance of other Inspectors / Supervisors present.
 - a) The condition of the track, with special reference to alignment, gauge, cross-levels, curvature, super-elevation, rail head-wear etc.
 - b) The condition of rolling stock with special reference to brake power.
 - c) The status of the Block Instruments including the relays controlling block entry and block clearance, position of block instruments, signals, points, point levers, indicators, the status of the track relays, routes set on the panels including lock indicators, keys etc.
 - d) Marks on sleepers and rails; and
 - e) Position of derailed vehicles, where possible, a rough sketch showing the position of derailed vehicles, marks on sleepers, etc. should be made.
 - f) The position of detached or broken parts of P Way or rolling stock and these parts should be secured to produce in the

Enquiry. Similarly sleepers and rail bearing marks of wheels between points of mount and drop must be preserved. Photographs showing the position of derailed vehicles, loose permanent way and engine fittings, dents on rails etc. useful in facilitating the Enquiry Committee to arrive at the cause of the accident must be obtained.

511. Duties of Commercial Official: On getting information of an accident, he shall immediately:

- 1) Arrange for refreshment and drinking water for the stranded passengers.
- 2) Arrange for road transport for evacuating stranded passengers.
- 3) Organize adequate number of licensed porters for carrying passenger's luggage and parcels.
- 4) Arrange for transshipment of goods/Luggage/Parcel if required.
- 5) Arrange for collecting the belongings of the injured and dead and handing them over on satisfactory proof of ownership being obtained.
- 6) Arrange to hand-over the dead-bodies to the police for further necessary action.
- 7) Organize enquiry-cum-information center at important stations enroute for giving information to the public.
- 8) Arrange for ex-gratia payment as per rules (refer appendix Q)

512. Duties of Engineering Official:

- 1) On receipt of information regarding accident, proceed to the site by the quickest available means.
- 2) Collect information about the extent of damage to the track and make arrangement for the required material, if possible depute someone to make necessary arrangements in consultation with Engineering Officials in Control office.
- 3) Action at site of accident- Report to the Site In charge and take following action.
 - (i) Ensure protection of affected track as per prescribed rules.
 - (ii) Help in rendering First Aid to injured and rescue operation by clearing obstruction.
 - (iii) Take details of damaged track, site location-Tunnel, cutting

bank, LC gate, Bridge etc., nature of accident, probable cause of accident, labour and material required for restoration and probable time of restoration.

- (iv) Apart from the Officer In charge at site, advise above information to the Central & Engg. Control, higher Engineering Officials in head quarter office and in the section, and take further instructions from them. Preserve all clues of accident and prevent tampering by anybody.
 - (v) Record the observation at site jointly with concerned Senior Sub-Ordinates of other departments.
 - (vi) Prepare detailed site sketch and if possible take photograph of the site, showing the details of damaged site position of accident spot.
4. In case of suspected sabotage, the clues of site should not be touched/disturbed, till local Police Officials reach the site and permit to attend the damaged track.
 5. In case accident at Level Crossing Gate, arrange to collect the details of whistle Board, Road Sign Board, Speed Breaker, Gradient of approach road and track etc., and draw the rough sketch and their distance with reference to centre line of level crossing.
 6. Track should not be attended till joint observation; measurements are taken and jointly signed by concerned Senior Sub-Ordinates and permitted by Officer In charge at site.
 7. Restoration work should be carried out as per the Instructions and with co-ordination of officer in charge at site.
 - (i) Deploy / distribute labour with required material at different works and monitor / supervise the work by deputing proper Supervisor and use them in planned manner. Day and night duty may be arranged depending on the site condition.
 - (ii) Arrange to keep proper record of material and labour received, distributed and used at site.
 - (iii) Give necessary help to other departments in restoration / re-railment operation by way of clearing damaged track, linking and attending new / old track for crane working as the case may be.
 - (iv) Be in touch with Control or depute a suitable person at field telephone to convey or take information from Control office for any assistance required for smooth and speedy restoration

of traffic.

8. Before giving Track Fit Certificate, check the track parameters, clearance of obstructions from track etc, personally and ensure that track is safe for passage of traffic.

513. Duties of Loco Inspector: On getting information of the accident the CLI shall immediately:

1. Proceed to the site of accident.
2. Seize and seal the speedometer chart of the loco and other relevant documents.
3. Arrange for breathalyzer test of the train crew.
4. Assist in recording of Joint Observations/ measurements of track, C & W, S & T Gears, other assets.
5. Record measurement of the Loco involved in accident.
6. Preserve all clues of accident.

514. Duties of Mechanical Official:

A) Mechanical Official

1. Proceed to the site of accident by first available means on receiving information.
2. At site, examine Engine and Rolling stock of the train involved and take details of any damage or deficiencies.
3. Secure any detached or broken part of the affected train.
4. Preserve the following in presence of concerned Sr. Sub Ordinates of other departments.
 - a) Vacuum/Air pressure Certificate (Brake Power Certificate)
 - b) Caution Order.
 - c) Speedo Meter Graph
 - d) Engine repair Book
 - e) Staff Statement
5. Record joint observation of accident site, preserve clues.
6. Record jointly measurement of rolling stock / loco involved and other aspects of rolling stock and track as per prescribed proforma with Sr. subordinates of other departments.

7. Supervise / Assist working of crane and clearance / rescue operation.

(B) Mechanical Break Down Staff:

1. Check up daily the rescue material such as Ration, Water, Equipments etc. If any thing is found short, make up the same without losing time.
2. On receiving information, Break Down staff should promptly rush to the Break-Down train without delay.
3. Break down in charge should collect information from Control office regarding nature of accident, such as collision, derailment, boulder fall, flooding etc., If possible speak to the concerned crew of involved train, regarding assistance required, dummy wagons, crane or any other requirement or which end breakdown train is required. Keeping in mind the permissible time, presence of concerned staff / officer's chase up for departure of break-down train.
4. He should record the time of important events, movements, photo & videography of the site and should work the train in absence of Guard (for which he should be thoroughly acquainted with traffic rules).
5. On arrival at site he should make a quick survey for arranging rescue material, and plan for restoration of traffic. He should record observation at site and draw a rough sketch where required.
6. After consulting the site in charge report the Prima-facie cause and forecast time to the Control Office, also mention any assistance if required.
7. If required, take necessary help such as manpower, material etc. from other departments without hesitation.
8. After completion of work take care to collect all the material issued to the staff during restoration operation. Full report of accident must be prepared and keep complete record.
9. If any toppling of vehicle is required at site / in the section, special care to be taken for securing same and also ensure that it is not fouling to running lines in any way.
10. Clearing of damaged vehicle from the site must be done with out-most care from the site.

11. Always ensure safety of the staff working at site.

515. Duties of Signal & Telecommunication Official:

1. On receiving information, rush to the site of Accident by first available means with required staff and equipments.
2. Ensure that the Emergency Telephone is provided at the site and is in working order.
3. Provide all possible communication facilities such as Landline telephone with STD facilities, FAX machine, Internet, Satellite Phone etc. at the site of accident.
4. The telephone should be continuously manned by S & T staff to ensure snag free and efficient communication between the site and Region/HQ control.
5. In case of Signal Gear, Point, Signal etc. is involved;
 - (i) Take joint observation at site with other Sr. Subordinates.
 - (ii) Ensure movement of any train / vehicle on the affected point only after proper setting and clamping the same.
 - (iii) Arrange early restoration of Signal & Telecommunication work by utilizing proper staff.
 - (iv) Where required take help of Engg. Staff and work jointly for restoration of damaged point / track.

516. Duties of Electrical Department Official: OHE/RE

(A) Duties of Tunnel Ventilation Operator / Controller:

In case a train stalls in long tunnel due to derailment / fire or any unusual occurrence, automatically alarm will be sounded in the control room to alert the Ventilation operator / controller, or if Guard / Loco pilot of a train or any other person gives such call on Emergency Telephone the ventilation operator should;

1. Control the ventilation in tunnel as per the procedure given in the Konkan Railway Safety circular No. 13 (copy of this Safety Circular No.13, should be displayed in the Ventilation Control Office and kept ready for guidance of the staff in such emergency.)
2. Arrange to illuminate the Tunnel lighting.
3. Passengers / Staff trapped in the tunnel should be alerted by sounding siren as required.

4. Be in touch with Site and Central Control for any instructions/ assistance.
5. Arrange proper ventilation to Save passengers / Staff trapped in tunnel, from suffocation and monitor the Pollution / visibility / temperature level.
6. If any train/ vehicle or any obstruction in the tunnel is appeared on the tunnel indicator board, do not allow other train / vehicle etc. in the tunnel and inform central control and station master concerned accordingly.
7. Record movements of train, vehicles, failures, unusual occurrence etc. in the register with date time of occurrence.

(B) Electrical Official:

1. Nominated officials at HQ :

The officer representing ELECTRICAL DEPARTMENT shall obtain the details of extent of damage to OHE /LOCO. He shall obtain the bio-data particulars of crew involved in the accident. He shall assess the requirement of additional material at the site of accident and shall organise movement of Tower Wagon /Material special to the site of accident.

2. Duties of Sr.REE/REE (TD) : He shall immediately :

- I. Arrange for adequate number of OHE breakdown staff, tower wagon and proceed to the site of accident by the quickest possible means.
- II. Depute Officer/ Supervisor in Control Office.
- III. Ensure that OHE is made dead and OHE is slewed as required.
- IV. Arrange and supervise restoration of OHE expeditiously.
- V. Record all relevant information.

3. Duties of Sr.REE (TRO/TRS) : When EMU or Electric Locomotive is involved in the accident, he shall;

- I. Proceed to the site by quickest available means.
 - II. Depute officer in the Control office.
 - III. Note down joint observations regarding the loco/ EMU.
 - IV. Ensure that measurements of the loco/ EMU are taken on the spot wherever possible otherwise in car/ Loco shed.
 - V. Ensure that records for maintenance of Loco/ EMU repairs are sealed in the shed.
 - VI. Ensure prompt and sufficient arrangement for clearing the line.
4. Ensure proper and sufficient lighting at site of work during night and in tunnel during day and night to facilitate smooth and early restoration, work and repairs to damaged track etc.
 5. Ensure no failure in light in case of any accident in Tunnel.

517. Duties of RPF Officials:

1. On receipt of the information of the accident the Senior Most RPF Official should immediately proceed to the site with available force by quickest means and arrange for any additional staff as required and inform Station Master accordingly.
2. Contact local District Police Official and ensure that the accident is reported to them also.
3. On arrival at the site of accident.
 - (i) Assist in extricating persons from wrecks, render First Aid to the injured and evacuate the injured and uninjured persons from the site.
 - (ii) Guard the belongings / luggage of the victims and railway properties, cargo / goods.
 - (iii) Look out for suspects in vicinity and keep note of any clue that may be useful in finding out the cause.
 - (iv) Co-ordinate with the District Police in the investigation of the case.
 - (v) Fight any fire that may break out at the site of accident.

- (vi) Guard and preserve all clues of probable cause of accident.
- (vii) In case of suspected sabotage, ensure presence of Civil Police Officer at site before starting any work of restoration & no such works should be started without their order.

518. Duties of Medical Department Official:

Medical Officer on receiving the information about serious accident in his / her jurisdiction.

1. Rush to the station and report to the SM and record the time of his / her arrival.
2. Inform the Chief Medical officer.
3. Inform the Medical Officers of the adjacent Health Units.
4. Should proceed to the accident site by the quickest mode of transport and note the arrival time.
5. The Medical Officer before leaving to the site of accident must depute an official who should take the following steps
 - a) Inform all authorities concerned to cooperate in releasing the persons trained in first aid to render medical aid and assist in transport of injured to various hospitals.
 - b) Inform local non-railway hospital about the accident and advise them about the requirements for beds and other facilities.
 - c) Be in touch with the accident site to organize and augment medical facilities required at the site.
6. Do not lose cool. Keep focused attention.
7. Assess the extent and seriousness of accident to plan medical relief.
8. Render prompt medical aid and arrange early transportation.
9. Set up field dressing units.
10. Arrange administering Breath Analyzer Test on Loco pilot and Guard.
11. Wear arm-bands for easy identification.
12. All the injured should be dealt with in a systematic manner.
13. While attending the injured, all the particulars viz name, address,

ticket no., identification marks, details of injury, etc. should be noted. Only rough notes are to be recorded at the site based on which detailed reports are to be made out later.

14. Injured persons should be shifted to the nearest Govt. hospital / Private.
15. Advise CMO/CCM/RRM about the list of the dead, injured, nature of injury, name of the hospital where the injured persons have been transported etc.
16. All dead should be sent to the mortuary and handed over to the Police Officials.
17. Due courtesy should be shown while handling the dead body.

519. Duties of Safety Officer at site: He shall immediately:

- 1) Seize and seal the relevant record / document such as train signal register, Station Diary, Guard Journal, Loco pilot Journal, Loco Defect book etc. and authenticate the same for Enquiry. The lever position / the panel counter readings should also be recorded.
- 2) Make arrangements to preserve all clues related to cause of accident. Arrange for photographs and video filming of the site of accident before commencement of restoration and during the progress of restoration.
- 3) Nominate the Supervisors team consisting of AS, LI, SE/SSE(Mech.), JE/SE/SSE/P. WAY and JE/SE(S&T) to take joint measurements of track, loco and wagons / coaches as per the attached Proforma and get the joint note prepared by the Senior Supervisors.
- 4) Arrange to obtain initial statements of concerned staff such as Loco pilot, Assistant Loco pilot, Guard, Station Staff, Gateman etc. The speed recorder graph of the loco for the train should be taken out and sealed and kept in custody for perusals by the Enquiry Committee.
- 5) Assist RRM/Officer in-charge of site in ascertaining the prima-facie cause of accident.

520. Duties of Officer -in-Charge at the site: The RRM and in his absence, the Senior most Officer at the site of the accident shall be the Officer-in-charge at site. On arrival at the site he shall immediately:

- 1) **Make an immediate assessment of -**
 - a) The number of passengers killed, grievously injured and simple injured.

- b) Extent of damage.
 - c) Probable detention to traffic.
 - d) Assistance required, and relay this information to the Officer-in-charge of the control office.
 - e) Prima-facie cause of accident & repeat to Control Office as early as possible & not later than 24 hrs. in anycase.
- 2) Depute officers and / or staff for specific duties in :-**
- a) Assisting in rescue operation.
 - b) Noting down particulars of persons sent to hospitals / given first aid.
 - c) Assisting in preservation of clues.
 - d) Maintaining a log at site.
 - e) Assisting in transshipment work.
 - f) Assisting in Railway security work.
 - g) Joint measurements.
- 3)** Arrange for ex-gratia payment, if warranted, in terms of instructions given in APPENDIX - Q of this Manual.
- 4)** Arrange temporary Mobile Control Office provided with Control phone / Railway Subscriber phone, MTNL / Public phone with STD/ Fax facilities at accident site duly manned. The site telephones should be continuously manned by a responsible Supervisor who should log the events and progress of restoration in the register and also give the latest information to Region / HQ Control.
- 5)** Catering arrangements such as food, drinking water etc. to passengers, injured or otherwise.
- 6)** Security of luggage of the involved passenger and protection of the area around.
- 7)** Transshipment of passengers and arrangements of road vehicles for clearing stranded passengers.
- 8)** Efficient communications including STD phones for passengers at adjoining stations, walkie-talkie sets at site etc.

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CHAPTER - 6

PROCEDURE FOR DEALING WITH CASES OF SABOTAGE OR TRAIN WRECKING

601. **General:** The instructions contained in this Chapter are additional instructions meant for cases where derailments and / or other serious consequences arise due to sabotage or train wrecking. Cases of tampering with track or equipment, even though not resulting in an accident, have to be reported to the Railway Board. Such cases should be immediately brought to the notice of all concerned including CSO/ Dy. CSO and RRM. The police and Security Staff should be advised and they should be given necessary assistance to carry out investigations.
602. **Duties of Guard, Engine Crew and other Railway Staff when a derailment or any other serious consequences take place due to suspected sabotage:** In case where derailment and / or other serious consequences arises due to suspected sabotage or train wrecking, the Guard along with the Engine Crew and other Railway Staff on board shall:
- 1) Protect the train.
 - 2) Report the accident to the adjacent stations/ control office / ~~adjacent stations.~~
 - 3) Render first aid to the injured.
 - 4) Carefully examine the track jointly with responsible passengers, and record the results of the examination and have the record signed by them.
 - 5) See that portions of the track, rails, fish plates, bolts and other fittings, appearing to have been tampered with are not touched or moved by any persons, and that these are closely protected till arrival of the Civil and Police Authorities.
- Note:** 1) In case of an officer or Inspector being on the train the above duty will devolve on him.
- 2) Whenever assistance is obtained from any passenger or other member of the public, their names and addresses should invariably be kept on record for future reference, if necessary.
603. **Information to the Civil and Police Authorities:** The SM of the station adjacent to the site of suspected sabotage or train wrecking must inform

the local Civil Police and RPF authorities by the quickest means available and give them all possible assistance to reach the site as early as possible.

604. Precautions by Engineering Supervisors: While proceeding to the site of suspected sabotage or train wrecking, AEN / SE (P.Way) shall take the following precautions:

- 1) Instruct the Trackmen proceeding to the site, in the first instance, not to carry any tools with them.
- 2) Ensure that tool boxes of Trackmen sent to the site are not opened until they have been checked by the Police.
- 3) Instruct them not to touch or remove any portions of the track, rails, fishplates, bolts and other fittings within the area of suspected sabotage or train wrecking till they have been inspected by the Railway, Civil and Police Authorities and photographs etc. taken.

605. Duties of Officers and other Supervisors: All concerned Officers and Senior Supervisors in addition to their other normal duties must:-

- 1) Take note of casualties / injuries.
- 2) Prepare sketches of the accident.
- 3) Do all they can to collect evidence likely to throw light on the cause of accident.
- 4) See that likely clues to the cause of accident are not inadvertently removed through ignorance or curiosity.
- 5) Make arrangements for Photography / videography of the portion of the permanent way, track, rails, fish-plates, bolts, and other fittings and the Engine and bogies of the affected train as early as possible by Local Photographer / Videographer.

606. Duties of the R. P. F. Staff:

- 1) On receipt of information of suspected sabotage or train wrecking, the Senior most RPF Official in whose jurisdiction the accident has taken place should immediately proceed to the spot with all available men.
- 2) Additional assistance, if necessary, may be requisitioned from the neighboring RPF Post or Out-Post.
- 3) Apart from making an entry in the Station Diary as usual, the SM also should be informed of this movement.

- 4) On receipt of information, SIPF/ASC of the region should proceed to the spot. Movement of the RPF Staff in these cases should be made by the quickest means available. When necessary, motor transport may be hired.
- 5) Before proceeding to the site the RPF officials shall contact the local District Police Officials to ensure that the accident has been reported to them also. On arrival at the spot they will discharge the following duties in addition to their normal duties:
 - a) Assist in extricating persons from wrecks, rendering First Aid to injured, evacuating injured and other persons from the site.
 - b) Guard the belongings of the victims and the Railway property.
 - c) Guard the Permanent Way rails, fish-plates, bolts and other materials from being interfered with by anyone till the police officials arrive at the site and take charge.
 - d) Look out for suspects in the vicinity, and keep a note of any clues that may be useful in detecting the offence.
 - e) Fight any fire that may break out at the site of the accident.
 - f) Co-ordinate with the Civil Police in the investigation of the case.
 - g) Joint Report of Accident to be submitted to RRM within 60 days.

607. Wreckage, etc. not to be disturbed until permission is given by the Police: Whenever there is delay in the arrival of Civil and Police officials at the site of suspected sabotage or train wrecking, the Senior most railway official at the site may, at his discretion, jack up any portion of a coach or shift any property to the minimum extent necessary, after noting its original position by sketch, to extricate human beings trapped under. Normal traffic, should however, not be permitted without consulting the police.

608. Joint examination by Civil, Police and Railway Officials:-

- 1) The senior most Railway Officer at the site of suspected sabotage or train wrecking must make a detailed investigation of the cause of the accident including a through survey of the site for at least 800 meters in the rear, with the assistance of representatives of Departments concerned in conjunction with senior Civil and Police Officials.

- 2) While carrying out the examination, the position of vehicles, track fittings etc., should not be disturbed as far as possible. Arrangements must be made with the assistance of the police to keep staff and outsiders who are not concerned with the examination away from the site. Precisely worded notes should be prepared specifying the various features coming to notice.
- 3) The senior most officer at the site in consultation with the police must decide what materials should be preserved for further examination. These materials should be stored under the joint custody of the police and the Railway at a safer place. As far as possible, all small fittings should be put into a box or a gunny bag and sealed jointly by the police and the Railway. A receipt must be obtained for whatever material the police has taken charge of before dismantling the damage track, the different components should be carefully numbered or match-marked so that the whole scene can be reconstructed if required later for the enquiry.
- 4) A factual note of the condition obtaining at the site after an accident suspected to have been caused due to sabotage or train wrecking should be prepared and signed jointly by the senior most police and the Railway Officials, difference of opinion if any may be recorded in the joint factual note.

609. Removal and examination of Rolling Stock:

- 1) Removal of undamaged rolling stock: Rolling stock which remain on track undamaged may be taken away after the written permission of the Senior Police Official at the site. These should be taken and stabled at the nearest convenient station where further examination of the fittings can be done under the supervision of the Sr. RME/RME/AME.
- 2) Removal and Examination of rolling Stock damaged due to accident:
A detailed examination of the engine and the vehicles damaged due to the accident must be made by the Sr.RME/RME/AME along with the Senior Police Official. All damages and deficiencies must be carefully noted down and particular comments made with regard to damages and deficiencies likely to cause derailments and whether these appear to be old or fresh and signature of the police official obtained on the note. These notes should be utilized for purpose of making the final note in the joint examination. Break- down operations to remove these vehicles should only be started in accordance with Para 612 below.

610. **Examining the site for preparation of note and drawings:** The following points should be noted by the Officers and Supervisory staff when examining the site of suspected sabotage or train wrecking:
- 1) The exact position in which engines and vehicles came to rest and also where loose component parts were found.
 - 2) The exact position in which rails and component parts, such as sleepers, fishplates, bolts, nuts, dog spikes, etc. were found.
 - 3) Wheel marks and other damage to sleepers, rails and other fittings in the accident.
 - 4) The examination of rails ends at the displaced point or points for any dents or burrs and whether burrs are vertical or horizontal.
 - 5) The position of wheels in relation to any displaced rail, its normal alignment and the landing rail.
 - 6) State of the track in rear for at least 800 meters.
 - 7) If the nature of the accident requires:-
 - a) The position and condition of signals, point and signal levers and block instruments should be inspected.
 - b) Functioning of interlocking provided at the station should be tested.
 - c) Train passing records including Train Signal Register, private number sheets, line admission book should be seized and carefully preserved. Where line badges are in use, it should be recorded in whose possession each line badge concerned was.
 - 8) Statements of staff should be recorded.
611. **Arrangements for photographs and Videography:** Arrangements must be made for videography and photography of all essential features. The services of a reliable local photographer / videographer may be utilized till the arrival of railway photographer /videographer.
612. **Restoration of communications:** Restoration of communication must only be taken in hand after complete investigation and examination have been made, a joint note and sketch have been prepared, and the police and Civil Authorities have given in writing that their investigations have been completed and that no further check is necessary.

613. **Preparation of plan for CRS or other inquiry:** A dimensional plan should be prepared for the CRS or Judicial Inquiry, which should be a reproduction of the original sketch. Copies of recorded note signed by the Railway and police representatives should form an appendix to the statements made by the senior most official in his evidence at the Inquiry.
614. **Notes and sketches to be carefully preserved:** All notes and sketches recording observations of the various officials who attend the site of suspected sabotage or train wrecking must be carefully preserved for future use in case evidence of such officers and officials is required later at inquiries, Subsequent investigations or in court trials.

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CHAPTER - 7

RELIEF AND RESCUE EQUIPMENT

701. **Self Propelled Accident Relief Medical and MFD Tool Van (SPARM &MFDTV):** The Self Propelled Accident Relief Medical and MFD Tool Van (ARM & MFDTV) is stabled in station yard. The function of SPARM & MFDTV is to carry Medical Equipment and personnel to the site, for prompt Medical Relief. The Self Propelled Accident Relief Medical and MFD Tool Van has provision of emergency tools for extricating the injured persons from the debris etc and also restoration / rerailment equipments. The details are given in Appendix A. In case of accident involving or likely to involve injuries or deaths, these shall be rushed to the site immediately.
702. **Target time for turning out of Self Propelled Accident Relief Medical and MFD Tool Van (SPARM & MFDTV) from the siding and their despatch from the stations:**
- i) In case of double exit siding : 15 minutes
Time for Despatch (Max.)
 - ii) In case of single exit siding : 20 minutes
Time for Despatch (Max.)
703. **Accident Relief Train:** Accident Relief Train (ART) is equipped to deal with relief, rescue and restoration measures. Details about Accident Relief Trains are also given in Appendix A.
704. **Target Time for movement of Accident Relief Train :** The Target Time for turning out of Accident Relief Train (ART) with complete equipment and staff from the loco shed (or the place where it is stabled) and despatch from the station, are as under :
- i) During day target : 30 minutes
time for despatch (Max.)
 - ii) During night target : 45 minutes
time for despatch (Max.)

NOTE: i) The target times for turning out Accident Relief Train/ SPARM & MFDTV are to be reckoned from the time of ordering to the time of leaving the shed/yard. Any delay in ordering or departure must be immediately examined and viewed seriously.

ii) At stations where the layout of the loco and traffic yard are such as to permit a reduction in the time limits stipulated above the Regional Railway Manager should lay down shorter time limits.

705. Promptness in movement of SPARM & MFDTV and ART:

- i) If an engine is not readily available, the nearest engine of any train including Mail/Express trains should be released and utilized for expeditious despatch of these.
- ii) SPARM & MFDTV and ART must be given precedence over all other trains while proceeding to the site of accident.
- iii) SPARM & MFDTV/ART should not be detained for want of Guard but may leave in the charge of any responsible Loco/Traffic Official. A Guard may be sent by the quickest possible means later on.
- iv) SPARM & MFDTV/ART or any special relief train, carrying injured persons must also be given top most priority.
- v) The ART after completing relief operations must be worked back to their base stations without any delay and must be given precedence over all goods trains.

706. Sounding of Accident alarm signals / Hooters / Sirens: The accident alarm Siren / Hooter must be sounded immediately when SPARM & MFDTV/ART is ordered.

Following codes are prescribed for sounding the accident alarm/siren/hooter:-

CODE	CIRCUMSTANCES
1 Two long blasts of 45 seconds duration with 5 seconds break in between	Accidents in loco/traffic yard at home station requiring only ART
2 Three long blasts each of 45 seconds duration with 5 seconds break in between	Accidents outside the home station requiring only ART
3 Four long blasts each of 45 seconds duration with 5 seconds break in between	For accidents at home station requiring both ARM & MFDTV and ART
4. Five long blasts of 45 seconds duration with 5 second break in between	For accidents outside the home requiring both ARM & MFDTV and ART
5. One long blast of 90 seconds duration.	Cancellation of ARM & MFDTV/ART. Or Testing of Hooter.

- NOTE:**
- i) The alarm signals / sirens / hooter requiring SPARM & MFDTV/ART shall be sounded as prescribed above and shall be repeated once more after interval of five minutes.
 - ii) The Loco shed In charge, Train Examiner and all other Supervisory staff concerned must ensure that the relief train gangs, break down gangs and other staff who are required to go to the accidents site

in the SPARM & MFDTV or ART, throughly understand alarm signal / siren / hooter and that their names and addresses are displayed at conspicuous place.

- iii) Testing of hooter/siren/accident alarm signal shall be done on every Monday at 8.30 hrs and same shall be recorded in a register. In case of failure of hooter/siren/signal alarm all concerned staff and officials shall be intimated about same for early repairs.

707. Action to be taken when accident alarm siren /hooter is sounded :- Immediately after the accident alarm siren /hooter is sounded, all staff earmarked for accident relief train shall report at nominated place and others at station. All official concerned shall report at the Medical Van if ordered, and proceed with medical van or to undertake any other duty that may be assigned to them. The Loco Inspector /Lobby Incharge /TPC /TLC on-duty shall immediately take action to :-

- (a) arrange for locomotive, any locomotive available should be utilised, preferably Diesel Loco, in OHE Territory.
- (b) call the loco crew and accident train relief staff.
- (c) turn out the accident relief train quickly to be despatched to the site of the accident.

708. **Arranging SPARM & MFDTV/ART from different stations:** Depending upon the seriousness of the accident and requirement at site, the SPARM & MFDTV and ART from different directions may be ordered and may be sent accordingly. This is also necessary as the track in rear of the site of accident may be badly damaged.

709. **Maintenance of SPARM & MFDTV and ART:** The repair and maintenance schedule for the SPARM & MFDTV and ART shall be prescribed by the Chief Mechanical Engineer. The specific duties of various branches in regard to maintenance etc. shall also be laid down in these schedules. Before undertaking maintenance of SPARM & MFDTV and ART in charge shall inform about it to Dy.CHC and obtain permission from him so that during emergencies alternate arrangement can be done. As soon as the maintenance work will get complete, same shall also to be intimated to Dy.CHC.

Schedule of Maintenance to be incorporated

710. **Responsibility of Different Officials:**

- a) Loco Running Staff, Shed In charge, Carriage and Wagon Superintendent or other Supervisor-in-charge of SPARM &

MFDTV/ ART are responsible to ensure that these are always fully equipped and in working order.

- b) The incharge of Break Down train /Tower wagon is responsible for seeing that the train is fully equipped with necessary tools and is in running order. He is also responsible for seeing that these are marshalled properly and kept stabled in a convenient siding ready to move out.
- c) S & T Staff is responsible to ensure that Communication equipments are always fully equipped and in working order. He must personally inspect and test the equipment quarterly.
- d) Medical Officer-in-charge is responsible to ensure that the prescribed stock of medicines and surgical appliances are maintained in the chests and almirahs and that the instruments and medical appliances are in perfect working order. He must personally inspect ARM & MFDTV once a month and maintain an updated list of hospitals (both Govt and Private) region wise with telephone numbers, mobile numbers, facilities available, distance from stations etc.
- e) Portable field telephones should be provided on break-down trains /Tower wagon which can be used from the site of the accident. The Controller or the Station Master must immediately advise the S&T staff to proceed to the site with the break-down train or with the medical van. A break-down train /Tower wagon must not however, be detained for the S&T staff but the staff should proceed to the site of accident by the quickest possible means.
- f) Sr. Regional Engineer must ensure that the permanent way tools and stores of suitable pattern, are complete and in good condition. He must personally inspect this equipment quarterly.
- g) Sr. Regional Electrical Engineer, must ensure that the equipment in the relief train is complete and in good condition. He must personally inspect this equipment quarterly.
- h) Sr. Regional Mechanical Engineer is responsible for the complete accident relief train / medical van as unit. He must ensure that deficiencies are made good after use, every time, by all the departments concerned. He must ensure that the nominated breakdown staffs are conversant with the use of all the equipment provided in the train. He must personally inspect the train and its equipment quarterly.

711. **Joint Inspections of SPARM & MFDTV / ART:** Joint inspection of SPARM & MFDTV/ART must be carried out quarterly by all the officers mentioned

above along with the Regional Safety Officer. Inspecting Officials shall enter their remarks in the Inspection Book which must be kept in the SPARM & MFDTV/ART.

712. Accident Relief Medical Equipment Scale II: The Accident Relief Medical Equipment Scale II is kept in boxes at certain stations details of which are given in Appendix A. This equipment shall be sent to the site of accident, whenever required, by the quickest possible means, from both sides of the affected section.

713. Maintenance of keys of SPARM & MFDTV and ARME Scale II:

- i) The keys of the locks on the Loco pilot cab room door of the SPARM & MFDTV will be in triplicate, one set to be kept under maintenance department, one set to be under charge of Medical Officer and the other to be under charge of the Station Master. The keys will be kept in a fixed glass case, in their offices, duly sealed.
- ii) The keys of locks inside the van should be in duplicate, one set to be kept in a glass case fixed in the vehicle, duly sealed by the Doctor-in-charge and the other set will be kept in his custody.
- iii) ARME Scale II will not be provided with locks and keys, but will be sealed by the Medical Officer. The entire ARME Scale II will be kept in a chest or in a room, which will be, locked and provided with duplicate keys, one of which will be with the Station Master in charge of ventilation control / RMV and the other with the Medical Officer and kept at a fixed place in their respective offices.
- iv) Wherever POMKA (Portable Medical Kit for Accident) sets are provided similar action should be taken as in case of ARME Scale II.

714. Mock Drills: In order to test the readiness and quick turn out of the relief trains, periodical mock drills in a planned manner should be organized. During such drills, the Self Propelled Accident Relief Medical and MFD Tool Van and Accident Relief Train should be ordered and turned out and kept ready to be despatched to nearby suitable station. The attendance and

promptness of the Railway Doctors, other medical staff and the other staff required to proceed to the site of accident, should be watched. Record should be kept of the observations and follow up action taken. The Mock drills should have an element of surprise and may also be conducted in the night. An accident drill may also be conducted to test and to train staff in the use of various equipment and to rehearse, their functions as a well knit team.

715. Trial Runs: The trial runs of SPARM & MFDTV/ART should be conducted if these have not been used out side base station for more than one

month. The trial runs should be conducted in such a manner that the vehicles comprising ART / ARM & MFDTV are inspected and tested on run for their fitness.

716. **First Aid Equipment:** First Aid Boxes are provided at the stations. These are also available with the Guard of the passenger train, ART/SPARM & MFDTV. Engineering gangs are also provided with elementary first aid boxes. The first aid boxes must be utilized wherever necessary without delay. Same shall be checked by Station Masters and Supervisors and shall be get recouped through medical department time to time if any discrepancies found. The station masters and supervisors should maintain the list of Staff qualified in giving First Aid.
717. **Miscellaneous Equipment:** Portable Control Telephones, Fire Extinguishers and Emergency Train Lighting boxes are also provided in the Brake Van of passenger train besides SPARM & MFDTV/ART. Portable Telephone and Fire Extinguishers are also available in the Diesel Locomotives. Most of the manned level crossing gates have also been provided with telephone connection with adjacent stations. These may be made use of.
718. **Distinctive Arm Bands:** The assistance rendered at accident site by the Railway Staff should be visible to the public, In order that the staff are properly identified for relief, rescue and restoration measures, adequate number of prescribed arm bands for the Doctors, para/medical staff and Other Railway Staff must be available in the Medical Van, Accident Relief Train, Control Office and with the Guards of Passenger trains. (Arm Bands have to be following specifications: "A white Band with a red cross-+")

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CHAPTER - 8

ACCIDENTS AND UNUSUAL OCCURANCES (Additional Instructions)

801.

(A) Defects in Track:

(a) Duty of Loco Pilot

- (i) In the event of a Loco pilot noticing his engine riding is abnormal over any portion or portions of the track; he must note down the location and kilometerage accurately and suitably regulate the speed of his train. He should ordinarily stop at the next stopping station and communicate through walkie-talkie or in cases where in his opinion the condition of track is liable to endanger the following trains he must stop at the next station and make a written report to the Station Master indicating the maximum speed at which in his opinion, trains may be allowed to pass over the affected locality or locations.
- (ii) Due to time lag occasion may arise where after closing the line, line clear may be granted to a following train without issue of the caution order and the train may enter the block section and come to grief. To guard against such an eventuality on a single line section worked on token less system and on a double line section the Loco pilot shall stop at a point within the rear block section and draw his train out of the rear block section only after advising the Station Master about the bad spot on the track and obtain his acknowledgement.

(b) Duty of Station Master

The Station Master on receiving this information shall stop all trains and issue caution order to the Loco pilot / Guard and repeat it immediately to the Station Master at the other end of the affected block section as well as to the Section Controller, the JE/SE/SSE(P.Way). The Station Master receiving the report must immediately arrange the issue of caution order under G. R. 4.09 (1). The speed restriction of 10 Kms. per hour or such less speed as may have been recommended by the Loco pilot, should be enforced only for the affected kilometerage unless the Loco pilot is unable to give the kilometerage in which case

the restriction should be introduced for the entire block section.

On double line section the caution order should be issued for both Up and Down lines.

(c) Duty of Pway Staff

- (i) The JE/SE/SSE (P.Way) or the Asstt. Engineer will at once inspect the track and take action considered appropriate and then issue instructions to the Station Master to continue, modify or remove the caution as circumstances demand.

Meanwhile caution orders must continue to be issued.

(d) Duty of Guard:

Should a Guard feel a heavy lurch or jerk which he considers dangerous for the passage of trains he will bring his train to a stand at the next station by destroying vacuum / air pressure and will report the matter in writing to the Station Master. If the jerk is not so severe to seem dangerous he should make his report in writing to the Station Master of the next stopping station.

(B) Defects in 25 KV OHE :-

- I. Engine crews of all trains shall keep a good look out while a train is in motion and watch the OHE and report any defect noticed to the TPC at the next stop.
- II. When a defect on the OHE, which is likely to interfere with the smooth movement of the pantograph or cause damage to it, is noticed ahead, the Loco Pilot shall trip the circuit breaker and immediately lower the Pantograph by placing the Pantograph handle in the lower position. An emergency stop should be made if necessary.
- III. If the damage to OHE is slight (such as a slight break away of the contact wire from the dropper or catenary), it may be practicable to coast under the defective section, but the defect shall be reported by the Loco Pilot to the TPC through the nearest emergency telephone circuit or in case the circuit is not available, through any other telephone.
- IV. In case of a major breakdown to OHE requiring trains to be stopped, the Loco Pilot noticing such a breakdown shall advise the TPC through the nearest emergency telephone circuit giving details of the breakdown and in case circuit is not available, convey the information through the nearest SM or ASM or any other telephone circuit. The TPC on receipt of such a message shall

pass on suitable instructions to the section controller and if necessary advise him to stop running of trains in the affected section. He shall use his discretion regarding movement of traffic and advise the nearest traction official.

- V. In case of breakage of an Overhead line, the Railway employee detecting it shall ensure that no person comes into contact with the line until an authorised person arrives on the spot. The authorised person will take immediate action to make affected line dead and earth.

802. Defective Engine:

In the event of a Loco pilot noticing that the running of his locomotive is abnormal, he must suitably reduce the speed of the train and advise the Power Controller that he is doing so and may request for a relief engine, if considered necessary. He will subsequently make a full report to the Loco Inspector. Loco Inspector/ Sr. Loco Inspector after examining the engine carefully and carrying out any adjustment necessary will communicate on telephone full particulars of the engine and details of adjustment made to the Sr.RME/RME/SME/AME or Sr.REE/REE/SEE/AEE as the case may be. If the control springs, bogie slides and axle box clearance are all found in order, a trial should be conducted with the engine by the Loco Inspector to locate the defect. The engine may then be put back to normal service with the permission of the Sr. RME/RME/SME/ AME or Sr.REE/REE/SEE/AEE as the case may be if found to run satisfactorily. If on the other hand, the Loco Inspector still considers the engine is running unsatisfactorily and cannot locate the cause, the Sr. RME/RME/SME/AME or Sr.REE/REE/SEE/AEE as the case may be should personally arrange to try the Engine out and thereafter have the defect rectified. A further trial may then be carried out before the engine is put back to normal service, in all cases the engine should be examined and a special report in triplicate should be sent by the Loco Inspector/Sr. Loco Inspector to the Sr.RME/RME/SME/AME or Sr.REE/REE/SEE/AEE as the case may be.

803. Detached part of engine or vehicle on track:

If any part of an engine or a vehicle becomes detached and there is reason to believe that the detached part has fallen on the track, a careful search must be made for the missing part by the train staff. If the missing part cannot be traced, the train must be stopped at the next block station ahead and the Station Master advised of the occurrence by the Guard. The Station Master must repeat the information to all concerned including the Station Master at the end of the block Section. It will be the duty of the Station Master concerned to issue a caution order to the Loco pilot of the first train proceeding into the section to be on the look-out for the

missing part and inform the PWS/JE/SE/SSE (P.Way)

804. Protecting places under repair:

Whenever platforms, buildings roads, etc., are under repairs and there is a possibility of any one falling into openings or over obstructions, the supervisor concerned of the work must arrange to protect it with barriers or warning boards and with lamps in the night.

805. Passengers getting into and out of moving vehicles:

Passengers must be prevented, if possible, from getting into and out of train which is in motion and Railway employees must not open the door of a moving vehicle. If a passenger about to enter a vehicle in motion is so near to it as to make interference with him dangerous, he must be left alone. If the passenger misses his footing or is otherwise in imminent danger, the train must be stopped immediately, but nothing must be done to confuse him. When a passenger can be stopped from getting into a moving vehicle without adding to his danger, he should be stopped. But if he is about to alight and is in imminent peril, he must not be interfered with till the train has stopped.

806. Explosion on track or train:

- a) On hearing an explosion the Loco pilot shall stop his train as soon as possible and examine the track along with Guard at the site of explosion to ascertain the extent of the damage. If the Loco pilot does not bring the train to a stand within a reasonable time, the Guard shall draw the attention of the Loco pilot by continuously applying the vacuum / air brake by operating the Guards brake van valve.
- b) The Loco pilot shall also examine the train along with the Guard and if little or no damage has been caused to the train, and if it is safe for the train to proceed to the next block station, the train will be taken ahead to the next block station, where the Guard and Loco pilot will jointly report the occurrence to the Station Master on duty.
- c) If the damage to the track is so serious as to render the track unsafe, a competent Railway servant will be left at the site with detonators to protect the spot in accordance with General Rules 6.03.
- d) On receipt of a report from the Loco pilot and the Guard, the Station Master shall advise the Controller, who will:
 - i) Advise the PWS/JE/SE/SSE (P.Way) to proceed to the spot immediately, inspect the track and take such precautions as are necessary to put the track right and impose speed restrictions, if necessary.
 - ii) Inform the SSE/JE Mech. and the Chief Loco Inspector for a

thorough examination of the train and the engine at the next station having C&W facility.

- iii) The Station Masters at both ends of the reported section must stop all trains and issue caution orders to loco pilot notifying the Kilometers and the speedrestriction.
- iv) No train shall pass over the affected spot at a speed exceeding 10 KMPH or such less speed as the reporting Loco pilot specified, until the PWS/JE/SE/SSE (P.Way) or the Asstt. Engineer has certified the track safe for any high speed when the Station Master will issue an “Allconcerned” message to all those originally advised.

807. Precaution against derailment at points:

The Loco pilot of a train which has come to a stop on one way spring loaded point in the trailing direction shall not restart the train unless the Guard has personally arranged for the spring loaded points to be set and clamped for the further movement of the train. In the case of light engine, this responsibility will devolve upon the Loco pilot of the light engine.

808. When carriage windows or doors are involved:

In all accidents in which carriage window or doors or their fastenings are involved, the Guard of the train shall, along with the Train Examining staff, immediately examine the windows or the doors or their fastenings and whether warning notices have been duly exhibited in the coach and record the results of the examination jointly in the Combined Train Report for the train. If there is no Train Examining staff at the scene of the accident, the Guard shall, as soon as possible advise through approved means of communication to the Train Examining Staff at the next Train Examining station. Immediately on arrival at the next train examining station ahead, the Guard shall examine the condition of the windows or the doors or their fastening etc., along with the Train Examining staff, and record the result of the Examination jointly in the Combined Train Report for the train. It shall also be responsibility of the Train Examining staff on receipt of accident message, to examine the condition of the doors or windows or their fastenings and whether warning notices have been duly exhibited in the concerned coach and advise immediately the Regional Railway Manager and Sr.RME/RME/SME/AME.

809. Unsafe Bunds etc. :

During monsoon, Station Masters and others who receive intimation from Government officials, or village authorities, or any person likely to give reliable information of the unsafe condition of the bunds of tanks or, rivers/RAW(Railway Affected Works) and RAT(Railway Affected Tanks)

should at once notify the same by approved means of communication to the Regional Railway Manager, Senior Regional Engineer, Asstt. Engineer, Permanent Way Supervisors and the Station Master at both ends of the block section likely to be affected and also the Section Controller/engineering controller on duty. The Station Master, at both ends of the block section likely to be affected should stop all trains, and issue caution order, Particulars of the river or tankbund, RAW, RAT reported to be unsafe should be given in the caution order, the following being added at the end: "Observe special caution and reduce speed as necessary"

810. Action to be taken by Railway staff regarding injured persons or corpses found on or near the Track:

(a) When life is not extinct:

- (i) When a railway employee finds an injured person on or near the track, he should do his best for rendering first aid or in the alternative summon medical help as early as possible. He should also arrange to inform the police through the nearest Station Master or any other person in the vicinity.
- (ii) When a person run over or knocked down is found by the staff of the same train or of a subsequent train, first aid will be rendered promptly by the Guard or by a qualified Doctor, if available in the train. After this, the person shall be transported to the nearest Railway Station promptly where medical aid shall be arranged by the Station Master.
- (iii) If the condition of the person is found to be dangerous; the dying declaration should be recorded by the Train Guard or Traveling Ticket Examiner or by the Railway servant who happens to find the injured person. The particulars to be recorded are name, father's name, age, residence, how he happened to be on the line and how the wounds were inflicted. The statement should be signed by the Guard and some other responsible witness and made over to the Station Master of the nearest station in the direction of the run of the train for onward transmission to the police authorities. Along with the statement a memo showing the time and place where the injured person was found and further disposal thereof should be attached. In case the railway servant, who finds the injured person, is illiterate, he should seek the assistance of some responsible person for obtaining the declaration.

b) When life is extinct:

- (i) When a dead body is found on or near the track by any railway servant or by the staff of the train involved in the accident or by the staff of subsequent train, the main requirement is to keep evidence intact specially the finger prints. Handling of the dead body by many people should be avoided as the finger prints which may be available near the scene of occurrence may be disturbed. Similarly, the dead body should not be removed until the arrival of the police as the chances of some clues which may lead to detection of case may be interfered with. However, to clear the line for the movement of subsequent trains, the body may be removed from the line; but in doing so, the movement should be the minimum required.
- ii) The body may thereafter be left in charge of village Chowkidar or any responsible person in the vicinity or TSM/Patrolman/Watchman or Gateman. If no responsible person is readily available at the site where the body is found, it shall be removed to the nearest gate-lodge in the direction of the movement of the train. Where there is no gate-lodge, it will be carried and made over to the Station Master of the next station. In all cases, a written memo, giving the following particulars shall be made out by the Guard, or if there is no Guard, by the Loco pilot of the train, or by the person who happens to find the body. This memo should be made over to the person under whose charge the body is kept, for onward transmission to the police authorities. (1) Time and place the body was detected; (2) Position of the body in relation to the track / tracks; (3) Blood stains on ballast or engine; extent of injuries and whether prima facie inflicted by a train or otherwise; (4) Position of any clothing etc., found on or near the rails; and (5) Name of the informant, his parentage and full postal address.
- iii) In case the body is found by a railway staff not working a train, he shall, unless he / himself is in a position to advise the police authorities, take immediate steps to advise any responsible person in the vicinity of the scene of the accident to enable the latter to take further action.

811. Statement of Crew in run over cases:

In the case of persons run-over the statement of the engine crew must always be obtained by the Loco Inspector (or other loco official in-

charge) of the shed at which the Loco pilot ends his journey and sent to all concerned. The Loco Official in-charge must arrange for examination of the engine and the vehicle for blood marks and report the results to all concerned.

NOTE: The Guard / Crew must note down all relevant particulars including action taken by them.

812. Persons found dead in trains or at Stations:

In case of persons found dead in trains or at station, the Station Master shall hand over the dead body to the police for disposal and, until such time this is done, depute a Railway servant to be in charge of the dead body. In case of death by contagious disease, the Director of Public Health of the State and Civil surgeon of the District and the concerned Medical Officer of the Railway should be advised.

813. Murder in running trains:

If a crime of a serious nature such as murder or serious assault is committed in a Railway carriage on a running train, the following action will be taken by the staff with a view to help the Police Officials in their investigation.

- (a) The Guard of the train will have the compartment locked up after all the shutters have been closed from outside, immediately after the commission of such an offence is known, so that remains undisturbed.
- (b) If the crime took place in a lower class compartment the carriage will be detached at the station where the crime was detected, and kept under watch till the police arrive to take over the case.
- (c) If the crime took place in an upper class compartment, the compartment will be immediately locked up and the carriage allowed to proceed to the nearest station where it can be replaced.
- (d) No Railway employee or an outsider shall be allowed to enter the compartment until the police arrive except in so far as is necessary to attend to injured persons unable to leave the compartment without assistance.
- (e) The Railway police station concerned will be advised at what station the carriage has been or will be detached. After the carriage is taken over by the police, it should not be removed or otherwise utilized without the written authority of the police officer conducting the investigation. If an abnormal delay takes place on the part of the police in releasing the carriage, the matter should be reported to the Regional Railway Manager concerned.

814. Care of dead bodies in run over / accidents cases : The senior most Railway official on the spot should discuss the question of disposal of dead bodies with senior most police officer at the scene of the accident and they should jointly determine the place for keeping the dead bodies under control of a responsible officer. The police have to take charge of the dead bodies and they should be given the requisite facilities for their transport to well protected places where they could be kept pending completion of formalities or until claimed by the next of kin. It may be stressed that respect for the dead should be the primary consideration and in any case, no dead body should be kept exposed to the weather.

815. Action in case of fire in trains:

In the event of a fire being discovered in a train, the train must be stopped immediately:

- (i) The portion of the train behind the vehicle which is on fire must be detached and front portion drawn ahead to a safe distance. The vehicles must then be detached and the vehicle in front of it drawn ahead to a safe distance.
- (ii) Every endeavor must be made to extinguish the fire by the use of the fire extinguishers, if provided, and by throwing water and sand on it. Fire brigade should be called.
- (iii) If water is available within a short distance the Loco pilot may, in consultation with the Guard, draw forward the front portion together with the vehicle which is on fire, after detaching the rear portion.

NOTE: (i) Water and steam must be not used to extinguish petrol or oil fire, or electrical fire.

(ii) Staff must keep themselves up-to-date about fighting instructions incorporated in G/SR 6.10 and contingency plans etc.

(iii) If the fire is in a vehicle carrying passengers, the safety of the passenger must be first consideration.

816. Fire near track: Whenever crew or any Railway servant noticed the fire adjoining railway line should inform the same to the nearest SM, on getting TFC from concerned officials, next train should be sent.

817. Petrol and other inflammable goods-prevention of fire: Oil lamps should not be taken inside the wagons or near the petrol tins, whether full or empty. No person shall smoke or take any naked light near any place where such goods are stored or handled.

818. Action in LPG Emergency: LPG is extremely inflammable. It may be

ignited by heat, spark or flame. Its vapors may travel to a source of ignition and flash back. Container may explode in heat of fire, vapor explosion can cause hazard indoors, outdoors, in sewers. Vapors may cause dizziness or suffocation.

i) In case of accidents involving LPG Tank Wagons:

- (i) Inform Civil authorities and summon assistance from Fire Brigade, Oil Company Depot and Bottling Plant, Refinery, etc.
- (ii) Keep unnecessary people away, isolate hazard area.
- (iii) Stay upwind, keep out of low areas.
- (iv) Isolate for one kilometer in all directions.
- (v) If tank involved is leaking or on fire, regulating / isolating trains is necessary

ii) In case of derailments of LPG Wagons:

- (vi) Check for leakage.
- (vii) Advise all people not to smoke. Extinguish all fire (including hand signal lamp) within One kilometer area.
- (viii) Examine tank barrel and all fittings carefully for any damage.
- (ix) To hoist the wagon, use diesel crane or MFD Jacks with spark arrestor at exhaust.

819. Spill or Leakage in LPG tank wagons:

- (i) Take steps as above except hoisting of wagon.
- (ii) Check possibility of stopping leak.
- (iii) Disperse vapor away from ignition source by water spray.
- (iv) Shut off ignition source. No flares, smoking or flames in hazard area about the one kilometer radius should be permitted.
- (v) If leakage is minor, put gunny bags on leakage and wet with water. Icing will reduce leakage. Do not touch spilled material.
- (vi) Give warning to District Authorities for evacuation of population.
- (vii) Arrange to transfer to another tank if it can be done safely by Oil Company.

820. Action to be taken in case of Fire in LPG tank wagons:

- (i) Isolate wagons not on fire within safe distance by uncoupling. Call fire brigade etc.

- (ii) Give warning to people living in adjoining area to evacuate for at least one Kilometer radius.
- (iii) For small fire use Dry Chemical Powder / Halon extinguisher and for large fire-water spray or fog be used.
- (iv) Stay away from ends of tanks as tanks normally burst from the ends.
- (v) Cool tanks that are exposed to flames with water from the sides well after fire is out.
- (vi) Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire.

NOTE: Summing up there are two most important aspects of disaster management in case of LPG Fire :

- (a) EVACUATE PEOPLE TO SAVE LIFE.
- (b) SEGREGATE UNAFFECTED TANKS QUICKLY.

821. First Aid - in case of LPG Emergencies:

- (i) Move victims to fresh air, call emergency Medical Care.
- (ii) If not breathing, give artificial respiration, if breathing is difficult, give oxygen.
- (iii) In case of frost bite thaw frosted parts with water.
- (iv) Keep victim quiet and maintain normal body temperature.
- (v) If clothing catches fire, stop, drop and roll, cover with a blanket.

822. Prevention of Fire in horse boxes and cattle wagons:

The Station Master at the station from which horse boxes and cattle wagons are forwarded, must personally warn the attendants in charge of the horses of animals against using any naked light or smoking or cooking in the wagons. Guards must frequently inspect horse boxes and cattle wagons enroute to see that the orders are carried out. Station Master, Guard and other concerned must also see that none of the attendants' family or persons other than the attendants actually in-charge of the horses are allowed to travel in the horse box or cattle wagons. Station Master must ensure immediately after unloading, that horse boxes are properly cleaned.

823. Acid Wagon catching fire:

When an acid wagon catches fire, the fire must be extinguished by using earth and water etc. It should be seen however, that water is not used

if the type of acid or corrosive is such that would cause further damage by chemical reaction. In all cases of fire in wagons containing acids, corrosive cotton, etc., the Guard or the Station Master or any other Supervisory Official in charge of the station must make note of the condition of containers, packing (both inside and outside) labeling of containers, manner of loading in the wagon, quantity filled in each container and affixing of “prescribed” labels on the wagon. Station Master will send a detailed report to all concerned.

- 824. Information to Police :** When any accident occurs connected with any consignments of acids and other corrosives and attended with loss of life or grievous injuries to persons or serious damage to property, or of a description usually attended with such loss, injuries or damage, the person for the time being in-charge of the consignment must forthwith advise the officer in charge of the nearest police station and the Chief Inspector of Explosives in addition to the Departmental Officer concerned.

- 825. Fire-Precaution in reporting the cause:**

When reporting occurrences of fire on train or in station premises, Railway staff sometimes ascribes the fire to spark from engine, or electric short circuit. Such statements must not be made unless they can be definitely substantiated.

- 826. Fire-Rendering of assistance by Track-men:**

If a fire occurs on any Railway premises at or near any portion of the Railway where Track-men are employed, they shall endeavor to extinguish and to prevent it from spreading. However, in the case of fire on electrical equipment, a Track-man shall report the occurrence to the nearest Station Master / Sub-Station immediately and shall inform any passing train or trolley, unless special instructions have been received directing otherwise.

- 827. Dangerous Practices:**

The following dangerous practices are prohibited.

- iii) Attempting to jump upon or alight from an engine or vehicle moving at high speed.
- iv) Going between vehicles, when a train is moving quickly for purposes of coupling or uncoupling.
- v) Hanging on to the side of a vehicle, with foot resting upon an axle box, or hand brake lever, when shunting is being performed.
- vi) Riding upon the buffers of vehicles in motion.

- vii) Moving vehicles, without first ascertaining that no person is standing between or sitting under the vehicle.
- viii) Passing too close in front of or behind the trains.
- ix) Going too close to the vehicles or between vehicles without ascertaining that the vehicles are not moving.
- x) Passing from vehicle to vehicle, while train is in motion.
- xi) Crossing the lines, or going between vehicles, without first looking in both directions for train or vehicle movements.
- xii) Unnecessarily standing on or walking on or between rails.
- xiii) Sitting or lying under vehicles.
- xiv) Working on vehicles under repairs, without the protection.
- xv) Climbing on truck loaded on the RORO (BRN) is strictly prohibited
- xvi) Climbing on coaches and wagons are strictly prohibited

828. Train passing signal at Danger: Action to be taken

When Loco pilot passes a fixed signal at danger the following action may be taken depending upon the circumstances:

- (a) (i) It is obligatory for the Loco pilot of the Train passing the signal at danger to immediately give in writing as to which of the signal / signals he has passed at danger and the distances (in places if measuring tape is not available) he has traveled after passing such Signal / Signals and hand over this written memo to the Station Master on duty, in case of mid section to the person in charge of the signal concerned. The memo should be signed by the Guard of the train also. The distance traveled after passing the signal at danger should as far as possible be measured by the Station Master or the Guard of the train.
- (ii) The station Master should also note down the aspect of signal on the Panel / Station and question the person who has operated the signal and all these should be recorded in the Train Signal Register. The Controller should immediately be informed about the passing of the signal, together with the name of the Loco pilot and the distance traveled after passing such signal. All concerned wire should then be issued.

- (b) In case of dispute or if the Loco pilot hesitates to give in writing about his passing of the signal at danger, the following instructions should be followed. (It should be clearly understood that the instructions prescribed below should not be considered as exhaustive or applicable in all cases since most of the factors would be dependent upon the layout of the Station or the interlocking provided).
- (i) On the controlled section the Station Master shall immediately inform the Control about the passing the signal and the action be proposed to take.
 - (ii) The Station Master on duty together with the Guard and Loco pilot(the Loco pilot only in case of Light Engine) and one or two members of the staff of other Departments who are readily available on the spot must be proceed to the signal / signals concerned and certify in writing the following particulars :
 - a) Description of all Signal / Signals;
 - b) Time and date of examination;
 - c) Condition of weather, visibilities;
 - d) Distance traveled after passing the Signal at danger;
 - e) Position of the Signals and relevant points, Station panel;
 - f) Position of running lines at stations; and
 - g) Data logger data to be preserved
 - h) Any other condition required to be noted.
- The Loco pilot, Guard and the Station Master and the witnesses should sign this paper and this should remain in the safe custody of the Station Master on duty and shall be handed over to the Enquiry Committee.
- (c) In addition to the instructions of clauses (a) & (b) above, if any of the staff (viz. Loco pilot, Assistant Loco pilot and Guard) is required to wear glasses, he should immediately make a declaration in writing.

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CHAPTER - 9

ACCIDENT INVESTIGATION AND INQUIRIES

901. Investigation on the spot:

The Officers and Senior subordinates present at the site of accident must jointly investigate the cause thereof and advise the RRM and other officers concerned, their opinion, mentioning the Department or Departments responsible and person or persons responsible for the occurrence. The investigation on the spot includes recording of statements of staff concerned and, if necessary, other independent witnesses. The various points to be noted in case of an accident have already been described in Para 237 and 610.

902. Information to be collected on the spot to facilitate Inquiry Committees to arrive at the cause of the accident:

- 1) After every accident certain vital information bearing on the cause of the accident is to be collected on the spot which later may not be available on account of clearance operations undertaken and the resumption of normal traffic. Due to failure to collect such information, it often becomes difficult for the Inquiry Committee to ascertain the cause of the accident. The information to be collected in different cases is given below:

(a) Loco pilot passing signal at danger:

- (i) In order to avoid any dispute later, the fact that a Loco pilot has passed a signal at danger should be formally brought to his notice.
- (ii) The Points man / ASM/SM must confront the Loco pilot and Guard with regard to the position of the signal concerned. The position of the signal and route should be recorded by the SM and signed by the SM, Loco pilot, guard and other witnesses, if available.
- (iii) The distance by which the train has passed the signal should be recorded in engine + bogie lengths and/or Hectometer wise, and by measuring the actual distance in meters.

- (iv) In the night time, the brightness of the signals should be noted.

The weather condition and visibility should also be recorded.

- (v) If the Loco pilot is required to use glasses, it should be checked whether he was in possession of them and using them.
- (vi) Arrangement for testing brake power of the train shall be made by Officers / Sr. Subordinates at the nearest C & W examination point.
- vii) Breath analyzer test of the Loco pilot should be done immediately and the Loco pilot shall be sent for further medical examination.
- viii) Data Logger details shall be analysed.
- ix) Brake Power Certificate shall be examined

(b) Collision and averted collision:

- (i) The position of the signal post, point machines and block instruments should be immediately checked and noted down.
- (ii) The Train Signal Register should be signed so as to indicate the last entry made and then seized.
- (iii) The position of the two trains or train and obstruction should be marked on the sleepers. The distance between the two should be measured in meters in case of averted collision. A rough sketch should be drawn showing their position vis-a-vis signals, station platform, turnouts and other fixed land marks.
- (iv) Arrangement for testing brake power of the trains shall be made by Officers / Sr. Subordinates at the nearest C & W examination point.
- (v) Breath analyzer test of the Loco pilots should be done immediately and the Loco pilots shall be sent for further medical examination.
- (vi) Aspect of signal, status of signaling panel snap shot shall be taken.

- (vii) Data Logger details shall be analysed
- (viii) Bio-Metric details of Stations shall be analysed
- (ix) Brake Power Certificate shall be examined

(c) Derailments:

- (i) Track measurements should be taken and a sketch should be prepared in accordance with instructions given Appendix - M and
- (ii) Measurements of rolling stock should be taken as per appendix -M
- (iii) For locomotives derailments, Examination of locomotives should be done as per proforma given in Appendix - M.
- (iv) The rail fittings and the point roddings including the locking arrangement should be examined. It should be seen whether there was any obstruction resulting in a gap in the points. Marks on the rails and sleepers should be observed.
- (v) In cases of derailments during shunting operations, it should be noted as to who was actually supervising the shunting.
- (vi) The position of the shunt signals, if any, should be recorded.
- (vii) Aspect of signal, status of signaling panel snap shot shall be taken.
- (viii) Data Logger details shall be analysed
- (ix) Brake Power Certificate shall be examined

(d) Accident at manned level crossing:

- (i) Location and number of the gate.
- (ii) Whether engineering or traffic?
- (iii) Whether interlocked or non-interlocked?
- (iv) Gate working instructions - validity
- (v) Visibility of signals.

- (vi) Visibility for road users.
- (vii) Condition of the road surface and approaches of the level crossing.
- (viii) Duty roster of the Gateman.
- (ix) Competency certificate of the Gateman.
- (x) Last census - date and TVU.
- (xi) Length and clearance of the checkrails.
- (xii) Availability of the safety equipment.
- (xiii) Frequency of inspections and last inspection by officers/ Supervisors.
- (xiv) Availability of Whistle boards, Road signs, speed breakers and stop boards etc.

903. Object of Accident Inquiry: The object of an inquiry are:-

- 1) To ascertain the cause of accident. In addition to finding out the immediate cause, root cause of the accident should also be looked into.
- 2) To fix responsibility for the accident. The responsibility should be fixed at higher level and should be specific i.e. primary, secondary and blameworthy. In fixing individual responsibility if there are any extenuating circumstances, these should be mentioned.
- 3) To formulate proposals for preventing a recurrence.
- 4) To determine whether there was any laxity in working to which the accident could also be attributed.
- 5) To examine whether there has been any laxity/delay in rendering relief and restoring through communication.
- 6) To suggest improvement in system, practices and procedures.

904. **Inquiries, Time limit for holding:** The inquiries must be held as per the following time table:

A : Schedule of Procedure for completion of Accident Inquiry

Sr	Model Time	Remarks	Maximum Time
1	Dt. of Accident	Telephonic advice to Head quarters, Reporting of prima facie cause of accident by RRM to DyCSO/CSO.	D
2	D +1 Day	Ordering of inquiry	D+1 Days
3	D+2 Days	Accepting responsibility unilaterally by any department.	D+2 Days
4	D+3 Days	Holding of Inquiry by Committee	D+3 Days
5	D+7 Days	Submission of Committee's Report to RRM	D+7 Days
6	D+10 Days	Forwarding Proceedings of Inquiry by RRM to DyCSO/CSO or Acceptance of Inquiry in to Yard Accident & unusual by RRM.	D+10 Days
7	D+11 Days	Issue of Chargesheets to delinquents	D+12 Days
8	D+15 Days	Review by CSO / Submission of RRM's report to higher Authority Thr' Dy.CSO	D+16 Days
9	D+21 Days	Reply to Chargesheets	I+10 Days
10	D+27 Days	Prelim.Inq.Completed..Finalization of Inq. report & Submission to the Competent Authority by CSO / Dy.CSO	D+27 Days
11	D+90 Days / I+50 Days	DAR action to be completed (Actually 50 Days time is given for concluding Major Chargesheet cases)	I+79 Days

D = Date of Accident, I = Issue date of Chargesheet in all Cases

Note- a) Even if particular department accepts the liability, RRM may decide to have conducted inquiry for enabling through review of associated systems involved into accidents.

b) The time limits given are with reasonable slack, but best efforts to be made to conclude well before.

B : For Unusual Incident cases Report shall be submitted to RRM within three days

905. Classification of Accident Inquiries:

(1) The Commission of Inquiry :

The Central Government may appoint a Commission of Inquiry under the Commission of Inquiry Act, 1952 (LX of 1952) in a very serious accident. In such an event any other enquiry / investigation or other proceeding in relation to that accident shall not be proceeded with and all records or other documents relating to such enquiry shall be forwarded to such authority as may be specified by the Central Government in this behalf.

(2) Commissioner of Railway Safety's Inquiry:

The CRS may order and personally conduct an inquiry into an accident, which he considers to be of a sufficiently serious nature to justify such a course being adopted. The CRS shall inform the CMD/D(O&C)/CSO/Dy.CSO of his intention to hold an inquiry and shall at the same time, fix and communicate the date, time and place of the inquiry.

(3) Magisterial inquiry:

In case of reportable train accident, the District Magistrate or any other Magistrate may himself make an inquiry or depute a subordinate magistrate or direct investigation to be made by the police as detailed in appendix.

(4) Joint Inquiry:

When a reportable train accident has occurred, a joint inquiry shall be held for thorough investigation of the causes which led to the accident as detailed in appendix.

(5) Departmental Inquiries:

When a joint inquiry / magisterial inquiry / CRS inquiry into a reportable train accident is dispensed with as detailed in appendix II A, departmental inquiry consisting of railway officers shall be held to determine the cause and / or responsibility for the accident.

NOTE: (a) When loss of or damage to Mail Vans and Mail forms the subject of an inquiry, the Superintendent, R.M.S. concerned shall be intimated. He may be present at the inquiry but will take no part therein.

(b) In Railway inquiries into accidents where military personnel or

property are involved, the Headquarters of the Military Command should be advised of the date, time and place of inquiry so that the Headquarters may send a Military representative to attend the inquiry if they so desire. The Military representative so deputed will only be an observer to watch the proceedings and not act as a Member of the Inquiry.

- (c) The CRS may attend all or any of the above inquiries, if he desires to do so.
- (d) In case of an inquiry into an accident which has occurred in a private siding and for which the owner of the siding or his employees may be in any way responsible, opportunity should be given for the owner of the siding to attend the inquiry, but he will take no part therein.
- (e) In case of an inquiry into an accident involving container / private train, the employee / owner as the case may be of such train operator should be given notice to attend the inquiry.

906. Ordering of Inquiries:

Normally the RRM shall order all inquiries in accidents. The CMD/D(O&C) or on their behalf CSO/Dy.CSO may order an inquiry into serious accidents, as deemed fit.

907. Composition of Inquiry committee : Safety Officer shall be one of the members of all departmental inquiry committee. In case Safety officer in same grade as of the Inquiry committee is not available in the region, Safety officer of one grade below may be nominated for the inquiry committee.

908. Inquiries, composition of:

- 1) Inquiry committee will normally consist of the officers from Safety, Operating, Mechanical / Electrical and Engineering Department. Other departments may also be represented when necessary.
- 2) When staff or engine of another division is involved, representative of that division may also be included in the inquiry committee.
- 3) No Officer or a Subordinate official whose evidence is required to be recorded before an inquiry committee should be appointed as a Member of that committee except when allowed only under the personal orders of D(O&C)/CMD.

909. Inquiry, president of:

- 1. At a joint Inquiry, the senior most official amongst those present at

the inquiry committee will be the president of the enquiry committee. He will be responsible to ensure that the enquiry proceedings are properly finalized in time.

910. Inquiry, Time and Place:

An inquiry must be held either at the place where the accident took place or at the nearest station, unless the Committee unanimously agree that the holding of the inquiry elsewhere will best suit the circumstances of the case and the convenience of the witnesses.

911. All concerned to be relieved for Inquiry:

Whenever an inquiry has been ordered, it will be the duty of the Regional Officer of each Department to direct all persons concerned under his charge or any other witnesses whom the committee may require to give evidence to be present at the place and on the date and time fixed for the inquiry along with all relevant documents and other information required.

912. Failure to attend inquiry: If a member of the Inquiry Committee fails to attend the inquiry due to any reason, he shall submit his written explanation to the President of the Inquiry Committee. When an officer or a Subordinate is unable to attend a inquiry at which his presence is essential on account of the technical knowledge or knowledge of other facts which he possesses and it is not desirable to postpone the inquiry, an Officer or a Subordinate Officer of similar standing should, if possible, represent him and the Regional Officer or Head of the Department, as the case may be, must be approached in order that this may be arranged. Witnesses who are summoned for an inquiry and fail to appear must similarly explain the absence. Absent without substantial reason may attract D&AR action.

913. Postponing of an inquiry:

An Inquiry will not ordinarily be postponed owing to the absence of a witness, but if after recording all other evidences, a decision cannot be arrived at, the inquiry may be adjourned till the witness is available. In case of a witness being sick, the President of the inquiry committee will advise the medical authorities to instruct the witness to attend the inquiry, and if the witness is unable to attend himself, he may depute representative to record his evidence, subject to the concurrence of the Medical Officer.

914. Some guidelines for the members of inquiry committees: Following are a few guide lines for the members of inquiry committee:

- 1) Strict impartiality must be observed by all members of the committee.
- 2) Findings shall be drawn unanimously, as far as possible dissent note should not be given.
- 3) Different technical data as well as evidence bearing on the accident have to be collected and an attempt should be made as far as possible to reconstruct the sequence of events leading to the accident.
- 4) Unless the cause of accident is evident, each of the factors that could result in the accident should be examined and its contribution, if any assessed.
- 5) In case of contradictory evidence, the value of such evidence should be discussed giving reason why a particular version is given credit, another version is discounted.
- 6) The sequence of events prior to and after the accident should be brought out in the proceedings.
- 7) To check general laxity in working or ineffective supervision the relevant record should be examined over some period to check whether irregularities that have come to light relating to the accident had been repeated previously. The inspection notes of Supervisory staff should be pursued and it should be determined whether the irregularities could have been detected earlier and set right if effective supervision had been exercised.
- 8) The following points should also be examined when relevant:
 - a) Whether the staffs have passed the prescribed medical examination. In case of staff who are required to use glasses whether they were using them at the time of the accident, or not,
 - b) Hours of work and previous rest of the staff and whether it complied with the rostered duties and the hours of employment regulations,
 - c) Whether the staff was acquainted with the rules pertaining to their duties and possessed the necessary competency certificates.
- 9) **Loco:** For details to be inquired into in case of derailments of locomotives, refer to Appendix - M.
- 10) **Track :** For details to be inquired into in case of track defects, refer

Appendix - M.

- 11) **Signal and interlocking:** Following aspects should be examined in case of accident involving signal and interlocking.
- a) If the station is interlocked, standard and system of interlocking and classification of station.
 - b) Visibility of signals concerned from the place of operation. If the signals are not visible whether repeaters are provided and what was the condition of the repeaters on the day of the accident?
 - c) If the first stop signal visible from the required distance? What is the approach like?
 - d) Is the home signal visible before approaching the outer most signal. If so, at what distance before the outer most signal?
 - e) Were the signals, points, ~~repeaters or slots~~ tested by the Committee concerned and what were their observations?
 - f) Recent history of signal concerned.
 - g) Are other points worked from a cabin or a ground frame?
 - h) Method of locking the points.
 - i) Were the rules and instructions complied with?
 - j) When did the maintenance staff last attended the maintenance of the apparatus?
 - k) Are the points provided with W.P. stretchers and if so, is the first stretcher hugging the stock rail?
 - l) Were the points found correctly set and locked and what is the condition of the switches? Are they worn out or chipped?
 - m) Are stop collars provided and were they used or whether instructions in force in force adhered to?
 - n) Was the Relay Room properly locked and Operating Key is in possession of SM/ ~~CASM~~.
 - o) Are the Relays properly sealed?
 - p) Bio-Metric details shall be examined
 - q) When was the crank handle last used and for what purpose?
 - r) Was the Crank Handle sealed?

- s) Was the Block instrument properly sealed and locked.
- t) Was the location Box at site sealed and no interference has been done.
- u) Were Motor points in intact position and no tampering has been done.
- v) Was panel sealed and all the counter reading were properly recorded for last operations.
- w) Whatever indications are shown on the panel (viz. Routes, Sub-routes, Signal aspects, indications etc. should be recorded as shown on the panel).

915. Essentials of Inquiry Reports:

The proceedings will comprise of the following:

- 1) Index and list of documents accompanying including list of witnesses.
- 2) Preliminary - including names and designations of members of Major Joint Enquiry and others present.
- 3) History of accident.
- 4) Description of site of accident.
- 5) Sketch of the scene of accident.
- 6)
 - a) Findings
 - b) Dissent note, if any
 - c) Comments of Majority on dissent note
 - d) Staff responsibility primary / secondary and rulesviolated.
- 7) Remarks and reasons for findings.
- 8) Note for information of administration and its legal advisers in case of litigation arising.
- 9) Other observations and matters brought to light.
- 10) Recommendations, if any
- 11) Comments on adequacy and promptness of relief measures including delays in movement of Medical Van / Breakdown trains and transshipment and catering arrangements, for the injured and the stranded passengers.

- 12) Statements of witnesses. Each witness should be serially numbered, name, designation, Headquarter Station, Region, Age, Length of service, pay scale should be recorded before recording the statement.
- 13) List giving full particulars of persons injured or killed.

916. Appendices of Inquiry Reports:

The following appendices shall also form part of Inquiry Report:

- i) An appendix stating nature, extent and damage to Railway Property, viz.:
 - a) P.Way
 - b) Locomotives
 - c) Rolling Stock
 - d) S & T gears
- ii) An appendix stating the damage caused to goods consigned by the public.
- iii) Events and time log of relief operations.
- iv) Proforma to be filled in, in case of derailments.
- v) Certificate of warning to the witnesses.
- vi) Report of Metallurgical Analysis, etc.

Proceedings should be filled in the above order. The papers should be filed in logical order paying due regards to sequence of evidence and importance of the witnesses concerned. The President of the Major Joints Enquiry Committee shall get the proceedings typed / written.

917. Preparation of History, Description of Accident and Locality:

This must be a concise account in narrative form indicating:

- a) History
 - i) The time, date and event leading up to the accident.
 - ii) What actually occurred?
 - iii) The result and consequences including interruption of traffic.
 - iv) Description of and comments on the adequacy and

- promptness or otherwise of first aid and Medical assistance.
- v) Description of and comments on the adequacy and promptness or otherwise of general relief operations and
 - vi) Description of the site of accident and its approaches.
- b) The description (summary of the accident and the locality): This shall be a record of the actual facts and will include such of the following items, as may be relevant to the accident under inquiry:
- 1) Date and time of the accident
 - 2) Nature and summary of the accident,
 - 3) Kilometerage
 - 4) Nearest Station
 - 5) Terminal stations at either end,
 - 6) Single or double line / quadruple / multiple line,
 - 7) If the line is electrified
 - 8) Number and class of train,
 - 9) Load in tones and vehicles
 - 10) Marshaled order of train,
 - 11) Condition of rolling stock,
 - 12) Brake power on train,
 - 13) Whether the train was booked to run through or stop,
 - 14) Train lights and headlight whether burning.
 - 15) System of working at the time
 - 16) Weather conditions.
- c) Description of the locality:
- Formation, grades, curves, type and conditions of permanent way, gauge, cross levels, cant, super elevation, description of signals, sighting of signals from approaching train and from the point from which they are worked system of interlocking and when no interlocking is provided method of setting and locking of points and controlling of signals.

918. Evidence:

- 1) **How recorded:** Evidence should be recorded as a connected narrative, subsequent admissions brought out in cross - examination should be recorded in the form of questions and answers. Care

should be taken not to intimidate witnesses.

Witnesses must read and sign their recorded statement on each page.

- 2) **Evidence of illiterate witnesses:** When witnesses are not conversant with English, their evidence should be read over and explained to them before their signatures are obtained and the President should certify that this has been done. Statement of the witnesses must be same translated. If the witness is unable to sign his name, his thumb impression should be taken on each page and attested by the President.
- 3) **Evidence by whom recorded:** The President of an Officers Inquiry Committee may utilize the services of a Stenographer to take down the evidence in shorthand and then transcribe on the computer / typewriter. The computerized / typed statement must be read and signed by the witness on each page. At a subordinate Officers departmental inquiry, the Area Supervisor, or in his absence, a Member nominated by the President of the Committee will record the evidence in his own handwriting or by computer/ typewriter. A Stenographer may be utilized.
- 4) **False evidence at inquiries:** The president of the Inquiry Committee shall warn the witnesses that, if false evidence is given at an inquiry, exemplary punishment will be given to staff including removal from service.

919. **Findings:**

- 1) The findings should consist of a simple statement of the opinion of the Committee as to what caused the accident, mentioning the staff responsible, if any, and the rules violated or the offence committed by them. It should also be mentioned under which of the following categories the accident falls:
 - a) Failure of Railway staff;
 - b) Failure of other than Railway Staff;
 - c) Failure of equipment,
 - d) Sabotage;
 - e) Fires;
 - f) Accidental or act of God;
 - g) Other miscellaneous cause;
 - h) Cause could not be established.
- 2) **Dissent reasons for:** If a member does not agree with the findings,

he must record his note of dissent and reasons thereof, the note of the dissent must be drawn up on the spot. This document must accompany the proceedings. This document along with the remarks of the President and other members of the inquiry committee on it, shall accompany the proceedings

- 3) **Reasons for findings:** In the “Reasons for findings”, the Committee must state fully the reasons which have led them to arrive at their findings. The Committee should bear in mind that the proceedings have to be considered by those who have not had the advantage of hearing the evidence and reviewing the circumstances on the spot. The description of the accident and the remarks of the Committee should, therefore, be as complete as possible, and knowledge on the part of others, who have to peruse the proceeding, of the conditions obtaining at the time and place of occurrence should not be assumed. The value of the evidence of each witness should be commented upon, and it should be stated, in the case of doubtful witness, whether the witness is impartial or whether he is one to whom the decision is a matter of indifference, or whether he is likely to be interested in securing a particular decision.

920. **Recommendations:**

The committee may recommend the proposals for prevention / recurrence of such accidents. The practical feasibility of the recommendations proposed should be borne in mind, the repercussions of the proposals on any other aspect of working should also be examined.

921. **Suggestions for system improvement:** The Committee should examine the system of working and may suggest improvements in the system, or practice of working which, in their opinion, would prevent such accidents in future. Rules and procedures which cannot be implemented or difficult to implement should also be commented upon.

922. **Other matters brought to light:**

The committee should also highlight the observations made at the site or during the inquiry which have not contributed directly in the cause of accident but are of a serious nature. Any alertness shown by any staff or other persons to prevent the accident should also be highlighted. Necessary action should also be taken by the RRM/CSO/Dy.CSO on the other matters brought to light.

923. **Submission of Inquiry reports :**

- 1) **Submission of inquiry report to RRM by president of the inquiry committee:** The President of the inquiry Committee shall be responsible for the timely preparation and submission of the inquiry

report. The inquiry report shall be submitted within 7 days from the date of accident.

- 2) **Submission of the Inquiry reports to the CSO/Dy. CSO:** The inquiry report shall be submitted to CSO/Dy.CSO within 10 days from the date of accident in all accidents asunder:

All reportable train accident	2 copies
All other train accidents and fire cases	1 copy

While forwarding the report, the RRM will offer his remarks:

- a) On the recommendations of the inquiry committee.
 - b) On other aspects of the enquiry e.g. other matter brought to light and systems improvement, if any.
- 3) **Submission of the inquiry report by CSO/Dy.CSO to D(O&C) / CMD:** The CSO/Dy.CSO will submit all accident inquiry reports with his remarks to the Managing Director for the acceptance of the findings.
- 4) **Forwarding the inquiry report to CRS:** A copy of the inquiry report of reportable train accident shall be forwarded to the CRS by CSO/Dy.CSO after acceptance by the competent authority / CMD.

924. Disposal of Inquiry Reports:

- 1) CSO/Dy.CSO will advise the RRM of the acceptance of the findings by the MD with direction to take follow up action.
- 2) If the findings are not accepted by the RRM/D(O&C)/CMD, a fresh / review inquiry by new or same committee shall be ordered.
- 3) If enquiry committee concludes that other Railway /Division establishments such as workshops, C & W Depots, Loco Shops, etc. are responsible for the accident, a copy of the enquiry report along with CMT's Analysis report etc. shall also be sent to that establishment for fixing staff responsibility and taking action under DAR.

925. Norms of punishments to be imposed in accident cases:

The norms of punishments prescribed by railway board are given in appendix. The norms should be followed rigidly. The CSO/Dy.CSO shall personally monitor that the punishment awarded to the defaulters is as per the norms. If it is inadequate, he will put the case to the RRM for review. A monthly summary of such cases shall be sent by regional safety officer to CSO/Dy.CSO at HQ.

926. Acceptance of Accident Inquiry Reports:

Since Yard accidents are trivial in nature, same could be dealt at Regional level itself. In view of expediency in finalization & adopting Indian Railways standard practice of delegation of power for acceptance of inquiry report (vis-a-vis level of inquiry and the gravity of accident) following procedure is stipulated over Konkan Railway for different types of accidents.

Sr No	Level of Inquiry	Inquiry Authority	Accepting Authority	Review Authority
i	All serious accidents	CRS	CMD	----
ii	In case CRS or CCRS is not in a position to inquire into serious accident cases involving coaching train, notified to him under section 113 of Railway Act.	Committee of SAG Officers and CSO is convener / Chairman of the such committee	CMD	----
iii	All cases of collisions (A-1 to A-4 Categories)	SAG officers committee if not enquired by CRS	CMD	----
iv	All other Consequential accidents	JA grade Committee of Officers with Dy.CSO as one of the member	CMD	----
v	All Other Train accidents-	Sr./Jr.Scale officers Committee as decided by RRM	RRM	D(O&C)
vi	All Yard accidents	Committee of senior Supervisor as decided by RRM	RRM	CSO
vii	a) All cases of Indicative Train accidents except all cases of Signal Passing at Danger(SPAD	a) Sr./Jr.Scale officers Committee as decided by RRM	RRM	D(O&C)
	b) All cases of Signal Passing at Danger(SPAD)	b) JA grade Committee of Officers at Regional level with Dy.CSO/ SOM/S as one of the member	RRM	D(O&C)
viii	CMD, D(O&C) or RRM can have the inquiry conducted by a committee of higher level of officers than the above mentioned levels depending upon the seriousness of accident			
ix	In accident cases, where RRM is Accepting Authority, wherein inquiry Committee determines responsibility on the Staff of Foreign Railway, the inquiry Report should be put up to the Principal Head of the Department of concerned department of the Railway on which the accident took place through CSO after which such inquiry report shall be accepted by the D(O&C) instead of RRM. Finalization of Inter Railway DAR cases arising out of such inquiry reports be followed up by the Principal Head of the Department of concerned department of the Railway on which the accident took place. If suitable response is not received from the respondent railway at General Manager' level, then the case should be referred to Railway Board.			

	<p>In case foreign railway staff is held 'blameworthy' only, the accident inquiry case may be accepted by RRM.</p> <p>It is clarified that the SAG level inquiry report has to be put up to GM (CMD on KR) for acceptance irrespective of the lien of the staff involved, whether Home Railway or of Foreign Railway Staff</p> <p>(Ref: Exe.Dir /Safety-1,Rly Bd's Letter No. 2005/Safety (A&R) / 6 / 4 Dtd. 08.05.2014)</p>
x	All cases of Equipment Failures shall be inquired into by Senior Supervisors / Supervisors of respective departments.
xi	All inquiries will be ordered by the concerned RRM except for inquiries falling under item ii.iii & iv of the above wherein the CMD will order the inquiries.

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CHAPTER 10

TRAIN OPERATION IN TUNNEL

1000. GENERAL :

There are 91 tunnels on the Konkan Railway with aggregate length of 84.496 Kms. Out of these tunnels 9 are longer than 2 kms. 14 are between 1 & 2 kms. and the 68 are up to 1 km. 7 tunnels are having ventilation facility. Two types of ventilation systems are provided in long tunnels of Konkan Railway:

- (i) Jet fan ventilation system is provided in:
 - (a) Nathuwadi Tunnel between VINH-DWV
 - (b) Parchuri Tunnel, between SGR-UaKC
 - (c) Tike Tunnel, between RN-NIV
 - (d) Berdewadi Tunnel between ADVI-VID
 - (e) Barcem Tunnel, between BLLI-CNO and
 - (f) Karwar Tunnel between KAWR -HAA
- (ii) Centrifugal fan ventilation system is provided in:
 - (a) Karbude Tunnel between UKC-BHOKE

1001. TRAIN WORKING IN LONG TUNNELS :

The tunnel ventilation system is provided for long tunnels. The tunnel control is to be manned round the clock by trained operators {tunnel control room operator (TCRO) and Asstt. Tunnel control room operator (ATCRO)}.

The control/operation of Tunnel ventilation system of KARBUDE Tunnel is done locally and that of NATHUWADI, Parchuri, TIKE and BERDEWADI tunnels is done remotely by the TCRO/ ATCRO from the tunnel control room located at the top of the shaft at Similarly, the control/ operation of the tunnel ventilation system of KARWAR tunnel is done locally and that of BARCEM Tunnel is done remotely by the TCRO/ATCRO from the tunnel control room located at north portal of KARWAR tunnel.

- i. The passage of train inside a long tunnel is indicated on the mimic panel by illuminating the segment corresponding of the train occupation of the track inside. The normal passage of the train from any direction is indicated by movement of the illuminated segment from left to right or right to left. Occupation of the track by the train inside the tunnel is to be indicated by Red color and non occupation by Yellow color.
- ii. For normal train operation in block sections which have long tunnel with Artificial Ventilation system control room mentioned in para (i) above, the

Station Master of either end of the concerned block section shall exchange private number with TCRO/ATCRO of the tunnel control room from where the ventilation system of such tunnels is controlled /operated before granting line clear to the other end station master. TCRO/ATCRO shall ensure that the ventilation parameters are within the permissible threshold values while exchanging the private numbers with the station master.

- iii. Movements of trains, trolleys and other rail vehicles in side tunnels are allowed with the permission of TCRO. Whenever trolley, RMV, self propelled lorry etc are required to enter such tunnels for maintenance, line block shall be obtained from other end station master under intimation to ventilation control operator who will give his private number for this purpose. The ventilation control operator shall ensure that the ventilation parameters are within the permissible threshold values before maintenance staff are allowed to enter the tunnel. Tunnels light which are normally 'OFF' shall be switched 'ON' to facilitate maintenance work as per request of maintenance staff.
- iv. Any obstruction noticed by the maintenance staff inside the tunnel shall be immediately brought to the notice of the TCRO/ATCRO and section control through the emergency telephone sockets provided in the tunnels, who shall advise the concerned for immediate action for clearing the obstruction. If obstructions infringes safe running of trains, then train services will be suspended. Clearance of obstruction shall also be brought to the notice of the TCRO/ATCRO and section control through the emergency telephone sockets provided in the tunnel.
- v. Maintenance staff of Engineering, Electrical, S&T dept. etc. when entering the tunnel on foot shall intimate TCRO/ATCRO of the tunnel control room where the ventilation system of such tunnels is controlled and operated, through emergency telephone. They shall intimate the name of maintenance gang in charge, number of staff/ labours, location of maintenance to the TCRO/ATCRO who shall record same in a register along with the time when they entered in and came out from the tunnel. Maintenance gang in charge of the respective department shall also maintain a register containing the name and other required details of staff/labours entering the tunnels along with the time when they entered in and came out from the tunnel. Tunnel lights of the particular segments which are normally 'OFF' shall be switched 'ON' by the TCRO/ATCRO to facilitate maintenance works.
- vi. If a train is to be passed, when maintenance staff are working inside the tunnel, ventilation control operator shall alert the maintenance staff by operating siren twice for 1minute duration with a interval of 1 minute in between, as soon as they exchange private number with the station master. In addition to sounding siren for drawing attention of the maintenance staff inside the tunnel, TCRO/ATCRO shall switch tunnel light 'OFF' & 'ON'. Loco Pilot of the train shall blow the whistle while passing in the tunnel.

- vii. The tunnel control room must have uninterrupted communication facilities to contact central control, section control and outside agencies. The communication system through emergency telephone to contact TCRO/ATCRO by the Guard / Loco pilot / working parties inside the tunnel shall also be maintained so as to ensure uninterrupted communication. TCRO/ATCRO shall immediately report the failures if any noticed by them or brought to their notice by the working parties etc. to the concerned S & T control and central control and shall maintain record of same along with date and time of restoration. S&T department shall attend such failure on top priority and advise the restoration to TCRO/ATCRO, S&T control, in charge electrical supervisor and central control and section controller.

1002 TUNNEL VENTILATION SYSTEM

A) CONDITIONS FOR OPERATION OF TUNNEL VENTILATION :

The tunnel ventilation system shall be operated in the following conditions (detailed procedure for operation of ventilation system under various conditions like stalling of trains, derailment upon the type of ventilation system detailed in subsequent paras shall be followed):

- i. After clearing of the train from inside the tunnel and not during the passage of train inside the tunnel.
- ii. In case of pollution / visibility / temperature levels increasing beyond the pre-set values i.e. CO : 50PPM, Temperature: Dual range 40 degree centigrade during passage of train and 60 degree centigrade due to fire inside the tunnel. and if the visibility sensor shows POOR in control console.
- iii. In case of stalling of train inside the tunnel
- iv. In case of emergencies when the work parties are required to work inside the tunnel.
- v. In case of train / locomotive fire inside the tunnel.

B) THE VENTILATION CONTROLLER HAS TO ENSURE THAT:

- i. Power supply either normally from local electricity supply or from the DG sets wherever provided for this purpose is always available for operating of the ventilation system to the extent possible.
- ii. All Control parameters are operative from the control console.
- iii. Tunnel environmental parameters such as temperature and toxic gasses (CO) levels are within the permissible threshold limits.
- iv. Prompt reporting of failures in Communication facilities as per the given procedure and chasing as in clause (viii) of 1001 above.
- v. Prompt reporting of obstruction noticed & reported by the maintenance staff to TCRO/ATCRO and chasing for clearing of same.
- vi. Periodical updating of Contact numbers of hospitals, fire station, in the control room, ambulance service, power supply authorities etc. on the boards displayed

- vii. The sirens provided inside the tunnel are in working order to warn the staff / work parties inside the tunnel well before the passage of the train.
- viii. Permanent lights provided near the trolley refuges at intervals of 50 m are normally kept “ON” all the times so that in case of stoppage of train inside the tunnel, Loco pilot/ Guard can contact TVCRO immediately.
- ix. All tunnel lights are switched “ON” in case of stalling of train or trains fire / derailment inside the tunnel in co-ordination with the train’s crew / running staff.
- x. Tunnel lights in the vicinity are also switched “ON” as and when work parties working inside the tunnel request.

C) OPERATION OF TUNNEL VENTILATION DURING ABNORMAL CONDITION:

- i. In case the adjacent station master is not able to exchange Private Number (PN) with the concerned TCRO/ATCRO. the train shall be given line clear with caution order to approach the tunnel portal with 15 KMPH and ready to stop the train. If the Loco pilot finds that the tunnel is clear of smoke and that permanent lights are ON, he shall clear the rest of the section with normal speed.
- ii. In case of total communication failure, the standard procedure for opening up of communication shall be adopted.
- iii. In case of failure of remote operation of the Ventilation system, the TCRO/ATCRO from the controlling TVCR shall send a competent person to the remotely controlled tunnel portal/TVCR for local operation of the ventilation system. Till the time staff reaches the remotely operated tunnel portal / TVCR, the trains in the section shall be operated as given in Para (i) above.
- iv. In case of stalling of “End on generation operated train” inside ventilated tunnel, Power car operating staff shall insure that, power car adjacent to train Engine shall be operated and to avoid rear car operation to avoid direction of smoke towards passengers. Training of ventilation system shall be given to Power car operators.

1003 OPERATION OF JET FAN VENTILATION SYSTEM :

PROVIDED IN NATHUWADI, PARCHURI, TIKE, BERDEWADI, BARCEM AND KARWAR TUNNELS:

- 1003.1 Train Stalling:** Whenever the train stalls inside the tunnel, the corresponding segments of the mimic panel will light up red color indicating the stalling of the train. If the train stalling situation persists for more than 10 minutes, an alarm will sound to alert the operator. The controller shall ascertain the exact location of the train and the direction of movement.

1003.1.1 PROCEDURE FOR OPERATION OF JET FANS: Start batches of fans in front side of the train to move the smoke away from the Passengers. If the train stall situation persists for more than 20 minutes, start batches of fans on the rear side of the train to ensure that the air flow inside the tunnel is maintained to drive the smoke away from the passengers.

1003.2 TRAIN FIRE SITUATION: When the fire breaks out, mechanical ventilation acts as powerfully. Increase in air supply reduces the fire progression by lowering the flame temperature which in turn diminishes the combustibility of the material. The ventilation can master the drift of smoke emission in order to speed-up a rapid well .oriented and safe evacuation of the stranded passengers.

The train crew report the fire to the Tunnel Controller giving position of the train inside tunnel (which is also indicated on the mimic panel) and location of the fire on the train, natural air flow direction at head height, location and approximate No of passengers on board, size of fire and amount of smoke.

The train crew evacuates the passengers through vestibules in the coaches behind the fire to the rear and evacuates the passengers located in the coaches ahead of the fire to the front into smoke free area. The ventilation controller operates the ventilation fans in complete co- ordination with the train crew to avoid smoke going towards stranded passengers.

The TCRO alerts the emergency service.

The TCRO directs fire and other emergency services which portal to enter from. He also gives details of the size of the fire, location of the train, and the number of passengers and crew involved.

In case of fire in locomotive or train inside the tunnel, all efforts should be made to take out the entire train outside the tunnel as fast as possible as rescue operations inside the tunnel are most difficult.

If due to certain reasons it is not possible to take out the entire train outside the tunnel, the efforts should be made to isolate the portion of the train on fire. The passengers should be advised to move into the train portion not affected by fire. TCRO should be contacted immediately through emergency telephone clarifying the complete position to help in deciding the operation of batches of Jet fans so as to ensure that smoke does not go towards the stranded passengers.

All the passengers should be moved through the vestibules to the coaches unaffected by fire. The passengers should be requested to alight from the train and move outside the tunnel by walking on the pathway provided on the covered drain on either side.

Fire extinguishers available with the Guard of the train and also provided inside the trolley refuges should be used liberally to extinguish the fire. (Two nos. of 5 Kg capacity DCP type fire extinguishers are provided in alternate refuges of ventilated tunnels)

Efforts should be made to move away the burning portion of the train outside the tunnel or leave the burning portion inside the tunnel and the unaffected portion of the train, where the passengers have been advised to move, should be taken outside the tunnel with the help of the locomotive. If this is not possible, the loco should be shut OFF to prevent generation of smoke by the locomotive.

The batches of JET fans on front and rear side of the fire should be started first. This has the cooling effect on the fire and propagation of fire is controlled for quite some time helping rescue operations.

All the jet fans should be started in batches to maintain the air flow in such a direction to prevent smoke coming towards the passengers.

The fire extinguishing process inside the tunnel should be continued by the train crew and other train servicing staff, i.e. conductors, coach attendants etc. till subsiding of fire or the arrival of fire brigade.

Efforts should be made to operate only Power Car which is next to the engine, so that smoke from power car and engine can be exhausted easily in similar direction.

1003.2.1 PROCEDURE FOR OPERATION OF JET FANS.

A) LOCOMOTIVE FIRE.

- Shut" OFF" the locomotive.
- Start the fans in batches ahead of the locomotive in the direction of the movement of the train so as to move the smoke away from the passengers.
- After communicating with the train crew start batches of fans on the rear side of the locomotive to ensure that the air flow inside the tunnel is maintained to drive the smoke away from the passengers.

B) FIRE IN THE FRONT PORTION OF TRAIN.

- Start the fans in batches in the direction of movement of the train, starting with those farthest from the location of fire.

- Do not immediately start the fans in the vicinity of the fire. This is to avoid mixing any stratified smoke confined to a layer at the roof of the tunnel with smoke-free air below. Once forced air flow inside the tunnel has been established, the fans situated in the fire zone can be started.

C) FIRE IN THE REAR PORTION OF TRAIN.

- Switch “ON” batches of fans in the direction opposite to the original train movement, starting with those farthest from the location of fire, so as to move the smoke away from the passengers.
- Note that in this case the fans will have to oppose the residual air flow and it could take some minutes to establish the ventilation flow.

D) FIRE IN THE MIDDLE PORTION OF TRAIN.

In case of fire in the middle coaches, operate the fans in batches in the direction of the movement of the train.

1003.3 DERAILMENT INSIDE TUNNEL.

Rescue operations and fan operations should be on the same lines as detailed in “TRAIN FIRE SITUATION.”

1004.0 OPERATION OF CENTRIFUGAL FAN VENTILATION SYSTEM IN KARBUDE TUNNEL.

- The centrifugal fans are uni-directional but the direction of air flow in the tunnel is controlled by combination of air dampers. Air curtains are provided inside the tunnel to isolate air-sections on either side of the central shaft for effective utilization of the ventilation system.
- Ventilation system normally functions in “SUPPLY” mode to purge the smoke from the tunnel after passage of the train in the direction of natural air flow to aid the forced ventilation.
- Tunnel ventilation control room provided on top of the central shaft has all the features and operational facilities as brought out in clause 1001 (i) to (viii).
- In case of failure of all means of power supply i.e. both state electricity and Generator set supply, reported by Ventilation control to central control at Belapur, supported with private number, ON DUTY controller at Belapur would allow the passenger carrying train into the block section between Bhoke-Ukshi only after ensuring the availability of a light engine or an engine on train at either end of the ends of affected block section, so that the same can be utilised for clearing the train if stalled inside tunnel.

1004.1 TRAIN STALL SITUATION.

Whenever the train stalls inside the tunnel, the corresponding segments of the mimic panel will light up red colour indicating the stalling of the train. If the train stalling situation persists for more than 10 minutes, an alarm will sound to alert the operator. The controller shall ascertain the exact location of the train and the direction of movement.

1004.1.1 PROCEDURE FOR OPERATION OF CENTRIFUGAL FANS: (REFER SKETCH NO. KR/CO/EL/AV/SK/6)

A) Train stalling at location “A” or “B”.

Close mechanical damper DI of the tunnel shaft and start air curtain AC2. Start the centrifugal fan in the “EXHAUST” mode. This will allow fresh air to enter from behind the train towards the middle shaft and smoke will not be allowed to go towards the passengers.

B) Train stalling at location “C”

Open the damper D2 switch “ON” the air curtain AC1. Operate the ventilation fans in “SUPPLY” mode to force the air from behind the train towards the stalled loco forcing the smoke to go away from the passengers towards the shaft, where the damper D2 is kept in open condition, and also towards the opening of the tunnel.

C) Train stalling at location “D” : Close damper D2. Switch “ON” air curtain AC1. Start the ventilation fans in “SUPPLY” mode to force the smoke of the loco to move towards the mouth of the tunnel and thus prevent the smoke coming towards the passengers.

1004.2 TRAIN FIRE SITUATION:

Operation of ventilation system in case of train on fire has to be done in complete co- ordination with train crew to avoid smoke going towards passengers. The operation of dampers, air curtains and fans shall be done by TCRO after watching the position of the train inside the tunnel on the Mimic panel.

The rescue operations as detailed in clause 1003.2 should also be followed in this system of ventilation.

1004.2.1 PROCEDURE FOR OPERATION OF CENTRIFUGAL FANS.

A) Locomotive Fire : (REFER SKETCH No. KR/CO/EL/AV/SK/6)

(a) Train stalling at location “A” or “B” as indicated in the sketch :

Shut “OFF” the locomotive.

Close the mechanical damper D1 of the tunnel shaft and start air curtain AC2. Switch “ON” the centrifugal fan in “EXHAUST” mode to move smoke in the direction of train movement i.e. towards the middle shaft so that smoke is not allowed to go towards the passengers.

(b) For train stalling at location “C” .

Switch “ON” Air curtain AC1. Operate the ventilation fan in “SUPPLY” mode to force the air from behind the train forcing the smoke to go away from the passengers towards the shaft and also towards the mouth of the tunnel.

(c) For train stalling at location “D”.

Close damper D2 of the portal shaft and switch “ON” air curtain AC1. Operate the ventilation fans in “SUPPLY” mode to force the smoke of the loco to move towards the mouth of the tunnel and thus prevent the smoke going towards the passengers.

B) Fire in the middle coach. (REFER SKETCH No. KR/CO/EL/AV/SK/6)

(a) Train stalling at location “A” or “B” as indicated in the sketch :

Evacuate passengers through vestibule in coaches behind the fire to the rear into smoke free air. Evacuate passengers located in the coaches ahead of the fire to rearwards past the fire into a smoke free air if it is safe to do so. Otherwise evacuate them under the plume of smoke as rapidly as possible. The operation of ventilation system in such a case has to be done in complete coordination with train crew to avoid smoke going towards passengers trapped on either side of the fire.

Close the damper D1 of the tunnel shaft and start air curtain AC2. Switched “ON” the centrifugal fans in the “EXHAUST” mode to move smoke in the direction of train movement i.e. towards the middle shaft so that the smoke is not allowed to go towards the passengers. Evacuate passengers from the rear of the train.

(b) For trains stalling at location “C”.

Switch “ON” air curtain AC1. Open damper D2. Operate the ventilation fans in

“SUPPLY” mode to force the air from behind the train forcing the smoke to go away from the passengers towards the shaft, and also towards the opening of the tunnel.

(c) For train stalling at location “D” .

Close damper D2 of the portal shaft and switch “ON” air curtain AC1. Operate the ventilation fans in “SUPPLY” mode to force the smoke of the loco to move towards the mouth of the tunnel and thus prevent the smoke coming towards the passengers.

C) Fire in rear coach : (REFER SKETCH No. KR/CO/EL/AV/SK/6)

(a) Train stalling at location “A” as indicated in the sketch:

Operate fans to provide air flow in the opposite direction to the original train movement. Evacuate passengers from the front of the train into smoke free air. Close the damper D1 of the tunnel shaft and start air curtain AC2. Operate the centrifugal fans in “SUPPLY” mode to move smoke in the direction opposite to train movement
i.e. away from the passengers.

(b) Train stalling at location “B” as indicated in the sketch.

Operate fans to provide air flow in the opposite direction to the original train movement. Evacuate passengers from the front of the train into smoke free air. Open the damper D1 of the tunnel shaft and start air curtain AC2. Operate the centrifugal fans in “SUPPLY” mode to move smoke in the direction opposite to train movement i.e. away from the passengers.

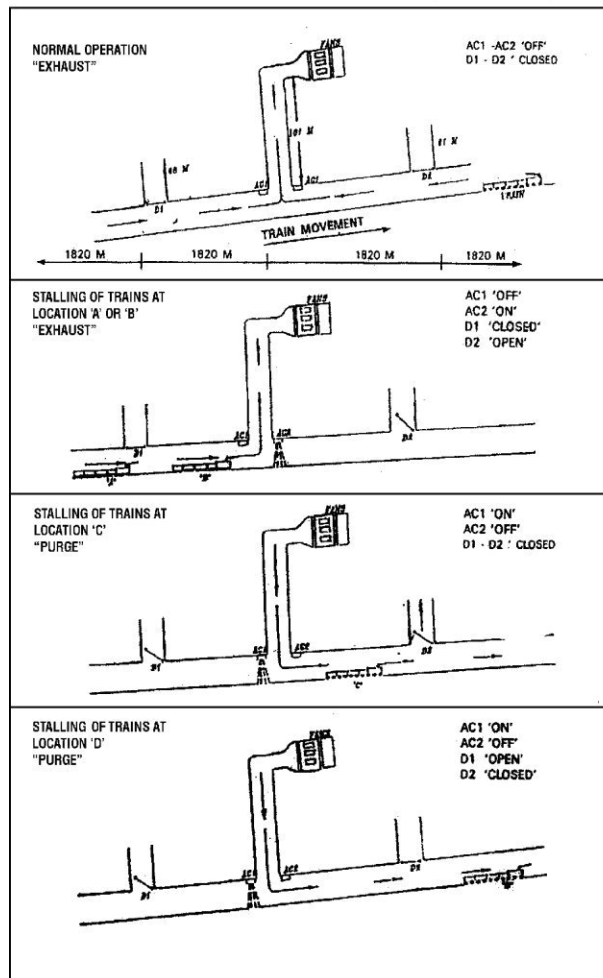
(c) For train stalling at location “C”.

Switch “ON” air curtain AC1 and operate the ventilation fans “EXHAUST” mode to force the smoke to go away from the passengers and exhausted through the middle shaft.

(d) For train stalling at location “D”:

Close damper D2 of the portal shaft and start air curtain AC1. Operate the ventilation fans in “EXHAUST” mode to exhaust the smoke through the middle shaft and thus prevent the smoke going towards the passengers.

SKETCH No. KR/CO/EL/AV/SK/6



1004.3 DERAILMENT INSIDE TUNNEL.

Rescue operations and fan operations should be on the same lines as detailed in "TRAIN FIRE SITUATION"

1005.0 INSTRUCTIONS TO STAFF - SAFE OPERATIONS OF TRAINS INSIDE THE TUNNELS

1005.1 LOCO PILOT / ASSISTANT LOCO PILOT

- Note that application of Rheostatic brakes is not permitted inside tunnels longer than 800 m.
- Use engine whistle while approaching "W/T" Engineering indicator erected to intimate that the train is approaching a long tunnel. Look back to ensure that the train is running in a safe and proper manner exchange all right signal with Guard.

- Be alert on the run, keep the engine headlight & marker lights burning during night, foggy or tempestuous weather and while entering and passing through tunnels.
- Never detach the train from the formation in the block section, without permission of the Guard and unless the load is secured by pinning of hand brakes to avoid rolling of load.

(A) Passenger Train

- Train shall be stopped as far as possible outside the tunnel portal.
- Inform, Guard, protect the train from front and rear and secure the train from rolling, by applying handbrakes.
- Call for necessary assistance from station through Section Controller and Tunnel Ventilation Controller (wherever available).
- Inform the Passengers about the stalling, to avoid any panic.
- Ensure illumination of tunnel wherever lights are provided by operating switches provided in the tunnel or advising Tunnel Ventilation Control (Wherever available) and operation of Ventilation system (wherever available).
- In case the train cannot be pulled out of the tunnel, the engine shall be shut down, the train secured by applying the brakes and protected in front and rear and Central Control informed of Relief Arrangements.

Goods Trains

- As far as possible, the train shall be driven out of the tunnel. If this is not possible, the engine should be shut down, the train secured by applying the brakes and the train protected in front and rear. Central Control / Tunnel Ventilation Control (wherever available) should be informed of Relief arrangements.

(B) Fire in Train

- If fire is noticed in a train, all efforts be made to stop the train before entering the tunnel, failing which the train should run through the tunnel and then stopped out in the open.
- Coach attendants should make efforts to extinguish fire with the help of fire extinguishers available in the coaches, and evacuate the passengers through the vestibules to the adjacent coaches.

- First aid should be rendered to the injured passengers.
- On complete evacuation of coach / coaches on fire, the rolling shutters in the vestibule should be closed to avoid spread of fire to adjacent coaches. After the train is brought to a halt, Loco pilot / Asstt Loco pilot / Guard shall inform the Central Control / Ventilation Control (wherever available) of the incidence and other details.
- Ensure tunnel illumination (wherever provided) by operating the switches available in the tunnel or through Tunnel Ventilation Control (wherever available).
- The portion of the train behind the vehicle which is on “Fire” must be detached, front portion drawn ahead to a safe distance, the vehicle on Fire detached and the front portion drawn ahead to a safe distance. Train load shall be secured by pinning hand brakes and protected in front & rear.
- Evacuate passengers away from the source of fire to a safer place, after evacuation of passengers from affected coach.

(C) Fire in Locomotive

- The train shall be stopped clear of tunnel, the engine shall be shut down and fire extinguished with fire extinguishers available in the loco. Assistance / Relief engine should be called for through Tunnel ventilation control (wherever available) / Central Control / Station Masters at either end. The train should be secured by applying the hand brakes and protected from front and rear and Passenger counseled to be patient.
- In case of longer duration of fire in the locomotive in the tunnel and unable to clear the tunnel.
- Provide illumination by operating switches provided inside the tunnels or through the Ventilation Control (wherever available)
- Assistance, Relief Engine called for through Central Control / Tunnel Ventilation Control (wherever available).
- The engine should be shut down.
- Passengers evacuated from the rear of the train to a safer place.
- The fire extinguished with fire extinguishers available in the train / in the tunnel
- Station Masters at either end informed of fire.

NOTE: Fire extinguishers have been provided in train engine, front / rear SLRs of passenger train, First Class coaches, Non-AC coaches, AC coaches, Generator Vans, Pantry Car, Inspection carriages, Trolley refuge in tunnels longer than 1 Km. Rail Maintenance Van, Tower wagon etc. for emergency use.

(D) Derailment in Tunnel

- On noticing a derailment the train shall be stopped. Passengers from the affected coach shall be rescued to unaffected coach / coaches.
- Tunnel illuminated by operating switches provided in the tunnel or through Tunnel Ventilation Control (wherever available) and also with the help of plug in type of flood light available in the Guard's brake.
- Summon all railway staff on duty / leave, Doctors on duty / leave for assistance in rescue operation.
- Arm bands to be supplied and worn by all staff & officers deployed in rescue operation.
- Inform the Section Control / Tunnel Ventilation Control (wherever available) about the accident with brief details. Train number, engine number, position of coach / coaches involved, type of coach, nature of injury if any, assistance required such as Medical Van, ambulance, ART, Doctors, hamals, other staff from adjacent nominated station, drinking water, transport to send the injured to nearest hospital Civil / Government/ Railway. Security forces to guard luggage of passengers, etc. Whether engine required from the rear end to clear rear portion.
- Evacuate the passengers to safer coaches via the side footpaths or through vestibules.
- Dispatch the injured to nearest hospital by quickest means.
- Get the train protected both in front and rear.
- All available clues leading to the cause of derailment shall not be touched.
- The unaffected front portion in any along-with passengers shall only be dispatched to station ahead after taking the Joint Observations.
- Secure the load of the train by pinning down the brakes.
- Passenger comforts and belonging shall be ensured by the coach attendant, Train superintendent and fellow railway-men on the train.
- Details of records of the passengers transported to various hospitals shall be got

maintained by Train Superintendent.

- Portable field telephone shall be manned for supplementary information to Central Control / Tunnel Ventilation Control (wherever available for dispatch of relief and rescue measures.

(E) Alarm Chain Pulling

- Slight drop in vacuum / air pressure shall be noticed, the train shall be driven through the tunnel, stopped outside the tunnel portals.
- Assistant Loco pilot, Guard, TTE, Coach Attendant shall ensure that the alarm chain apparatus is restored to normal position. Reason for alarm chain may be obtained from the passengers of the affected coach.

1005.3 TRAIN SUPERINTENDENT

- In case of any unusual / accident
- He shall be courteous / friendly with passengers.
- He shall maintain a list of railway staff / Doctors traveling on duty / leave with name, designation, coach number and seat number who can be summoned at the time of need.
- In case of stalling of train in the tunnel he shall counsel passengers not to panic and duration of halt shall be intimated.
- Arrangement of drinking water from nearby village shall be made through Coach attendant and fellow railway men.
- First Aid rendered to passengers in need of the same.
- Stranded passengers to be rendered all possible assistance.
- Help passengers in case of transshipment to relief trains.
- Keep an up-to date record of the passengers rendered first aid and sent to hospitals in case of accident, which shall contain Name of the passenger, sex, age ticket number, compartment number, brief nature of injury, the mode of transport used, the name of hospital sent, address of the hospital, etc.

1005.4 STATION MASTER

In case of any unusual / accident

- Tunnel Ventilation Controllers shall inform the Station Master of the brief

particulars of the unusual / accident in tunnel, on receipt of which Station Master shall take all possible action for relief, rescue arrangements, facility of drinking water, etc. Send spare Commercial Staff by the quickest means and expeditiously.

- When a train carrying passenger is overdue by 10 minutes and 20 minutes for goods train, he shall depute suitable staff to the section to gather information about / condition of the train and nature of assistance required. Central Control shall be advised of the same so that Medical Van and ART shall be kept in readiness.
- Rush medical aid to the site of accident, to assist to transport injured passengers to the nearest hospital Civil / Government / Railway.
- Open information centre manned by Commercial Staff for furnishing details of rescue operation for stranded passengers and disposal of injured / casualty passengers. Prompt guidance to kith and kins of the aggrieved passengers.
- Shall keep one of the lines in the station yard clear for reception of medical van / relief trains and accommodation of a room for field dispensary if need arises.
- Shall assist in the remarshalling of ART for dispatch to site of accident.

1005.5 COACH ATTENDANTS

In case of any unusual / accident

- Ensure that Rolling shutters of coaches are open and working for movement of passengers.
- Assist passengers in orderly evacuation when needs arise.
- Advise passengers when train held up for any reason to be patient not to panic.
- In case of fire noticed on the coach, evacuate the passengers through vestibule to safe coaches, make efforts to extinguish fire, after which rolling shutters should be closed to prevent spread of fire / smoke to the unaffected coaches.
- Assist the Guard in restoring the alarm chain apparatus in the normal position, in case of chain pulling.
- On demand shall procure drinking water to stranded passengers.
- Render first aid to passengers when need arises.
- Follow the instructions of Train Superintendent / Guard.

1005.6 CENTRAL CONTROL

In case of any unusual / accident

- Close monitoring of running trains on sections.
- Regulate trains on stations at either end of the block section where emergency has occurred so as to keep the running lines clear for speedy movement of Accident Relief and Rescue operations in the event of accident.
- Tower wagon movement to be monitored & ensured.
- Power block to be ensured.
- Ensure OHE staff availability.
- When passenger train is overdue in the block for more than 10 minutes, and freight train 20 minutes, after allowing normal running time, shall immediately warn the station where break down to keep them in readiness to be moved immediately on receipt of further advice and keep in constant touch with either side station staff.
- When a train is immobilized due to accident, failure, obstruction, other exceptional causes, the Loco pilot unable to proceed, Controller shall advise the Loco pilot to shut down the engine, train secured by pinning down the hand brakes, Relief Engine sent for clearance. Tunnel Ventilation Controller (wherever available) advised to take action in regard to illumination and ventilation in tunnel.
- Application of Rheostatic brake of diesel engine is not permitted inside tunnels longer than 800 m.
- In the event of accident involving passenger train, medical aid from the local resources to be mobilized and rushed to site of accident.
- In addition of above, rush Auxiliary- cum - Medical Van and Ambulances to the site of accident.
- Relief arrangements for clearing the stranded passengers shall be made on Top priority.
- Passengers shall be advised through Public address system and through other Railway staff.
- Senior officers shall be in-charge of the site of accident assigning specific duties for rendering all possible assistance to the stranded passengers.
- Relief train shall be moved with utmost speed.

- Drinking water, catering arrangements shall be made available through local village / town people.
- Monitoring of medical aid to the injured and rushing them to Hospital.
- Officers present in the control office shall monitor relief arrangements, catering arrangements, conveying information regarding casualties, movement of material for restoration etc.
- Commercial Officer in the Control Office shall arrange for conveyance of information about running of relief train, details of injured passengers, catering arrangement enroute, etc. to important Stations, originating & destination stations.
- Whenever on account of an accident to a train necessitates termination of passenger carrying trains short of destination notice should be given to adjacent railways so that they can advise the passengers at stations enroute and at destinations. At the same time suitable catering arrangements on the diverted route shall be made well in time duly keeping passengers informed of the revised timings.
- Special enquiry booths shall be opened at important Junction nearby stations, at originating, destination and for conveying information to public.
- Monitoring of ex-gratia payments to injured watched on daily basis.

1006.0 Train Parting: (As per G. R. 6.08)

If any portion of a train should while in motion, become detached:

- a) Loco pilot shall use his judgment to keep the front portion in motion, if possible until the rear portion has been brought to a stand so as to avoid the chance of a collision between the two portions, and sound the prescribed code of whistle to inform the guard of the parting train.
- b) Guard in the rear portion should do all they can to prevent a collision with the front portion

If parted train has passed the tunnel and enters the section the Loco pilot should give continuous prescribed whistles to attract station staff. (W/T).

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CHAPTER - 11

DISASTER MANAGEMENT

1100. GENERAL

Railway Board has unified the definition of Railway Disaster as, "A serious train accident or an untoward event of grave nature, either on the railway premises or arising out of railway activity in that area due to natural or man-made causes, that may lead to loss of many lives and/or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating large scale help from other Govt./ Non-Govt and Private organizations."

The aim of disaster management plan is to plug in the lacunae and management during disaster by the way of instructions, experience and professional judgement.

1101. CONCEPT OF DISASTER MANAGEMENT

The Concept of Disaster Management is briefly discussed described in Disaster Management Plan of Konkan Railway.

1. Objectives of Disaster Management Planning

The objective of Disaster Management Planning is to raise the bar of Safety, Efficiency & Quality of service rendered through preventive & mitigating dimensions. Successful management of a crisis depends on one's ability to foresee and control it in time. Planning is a must to minimize disaster effects, quick recovery and resumption of traffic. The key to develop an effective disaster plan is to anticipate every possible vulnerability. Preplanning systematic strategies to tackle various disasters leading to significant improvement response to an accident. Although organisation may be prepared for disasters, it is not possible to prevent them entirely. The advantage of introduction of the new term 'Disaster Management' is that Railway men will now have to look afresh for improving their response to an accident and plan proactive action to mitigate consequences of such accident. A good starting point could be the inspection of vulnerable location, prime stations, station yards, loco sheds and other important infrastructures.

2. Declaration of Railway Accident as a Disaster:

Depending upon the seriousness and gravity of a mishap, the Administration would take a conscious decision whether the situation is to be classified as a Disaster or not. CSO/ Dy.CSO & in his absence COM is the authorised / nodal officer to declare an accident as a Disaster in consultation with Directors. Such declaration will be issued to all concerned. If the accident is declared as a Disaster, all instructions as contained in the Disaster Management Plan would automatically

come into force, and officers and staff of all departments would take action as laid down in Disaster Management

Plan of KR. All officers and Supervisors concerned should be fully conversant with various duties listed therein and carry them out without fail on war footing.

3. Formation of Disaster Management Cell

Once a mishap is declared as Disaster, immediately a multi disciplinary Disaster Management cell shall become operational at Corporate office, Belapur. This cell shall consist of Medical, Safety, Operations, Commercial, Mechanical, engineering, S&T, Electrical, Security, Stores, Personnel and Public Relations Dept. The detailed functioning of the cell is discussed in Disaster Management Plan of Konkan Railway. Priorities during Disaster are:-

- Save life , alleviate sufferings and provide succour
- Preservation of clues and security of passengers' luggage and Railway property
- Restoration of through communication as early as possible

4. Disaster Preparedness and Relief Measures:-

In order to face any Disaster, proper planning and preparedness with necessary training and resources development is a must. Full Fledged Responding Mechanism is required to be ready for mobilization at shortest notice. Vital information of varied strengths of Railway & Non - Railway organisations within reach shall be kept handy and response priorities of local and central action units are hence decided strategically. Core Competency and Capacity building are the pre-requisites of Disaster Preparedness.

5. Post Disaster Management

Immediate action to be taken once a disaster is declared in taking control of the situation, assessment of damage & perils, requisitioning and mobilising of resources, immediate rescue and rehabilitation measures. All departments of Railway have to play their role as prescribed in expediting the restoration.

To arrest the recurrence, the root cause of accident, contributing factors need to be explored and properly addressed.

6. Disaster Response

On declaration of disaster / major accident immediate response from all concerned is a must as the first (Golden) hour after an accident is most vital for saving precious human life. For this, quick relay of vital information, evacuation

of passengers, first-aid & succour are bare necessary.

7. Types of Railway Disasters

A) Railway Accidents : The following disasters / accidents may be caused by human / equipment failure, which may affect normal movement of train services with loss of life or property or both and also called as Consequential Train Accidents:

- Collisions.
- Derailments.
- Level crossing accidents at Manned/Unmanned Level Crossings.
- Fire on Train.

Mitigation

- Proper maintenance of rolling stock, track, signaling gear
- Rigid observance of rules for train passing,
- Remain vigilant while on duty on foot plate, at station, in the brake van, on Permanent Way inspections,
- Proper maintenance of S & T gears.
- Up keep of fire extinguishers, keeping ART / ARM & MFDTVs, / Tower wagon in good fettle.
- Mobility of infrastructure to be checked by conducting periodical mock drills.

B) Natural Calamities: Natural calamities may also cause serious disruption to traffic with loss of life/property. Some of the natural calamities are :

- Landslide.
- Earthquakes.
- Floods.
- Storm/Cyclones/Tornadoes.

Mitigation.

- Proper liaison to be maintained with the meteorological dept of the Region/HQ by the control,
- Proper maintenance of Anemometer where provided,
- Regular weather forecast to be recorded by Central Control & repeated to concerned SMs.

C) Sabotage : Sabotage causing deliberate loss of life and/or damage to property.

- Setting fire to train/railway installations and railway property.
- Terrorist acts like bomb blasts, Hijacking, disrupting traffic by any mischief
- Tampering with railway fittings to cause accidents.

Mitigation :

Sabotage causing deliberate loss of life and/or damage to property, therefore all due care must be taken and any railway staff noticed points mentioned below, he shall promptly report the event to Station Master or Station Master of the nearest station for further necessary action.

- There is suspicious activity in the railway premises, train or on the track
- Whenever there is a unclaimed luggage in railway premises

8. Database

“The best help is at your wrist end ”. As such, to provide the optimum succour in train accidents, comprehensive database is required handy for multi-pronged relief operation. For this purpose, use of Telephone Directory of Disaster Management Plan is solicited which is having important telephone numbers Govt.& Non-Govt. organizations, help- groups of regions, district & state authorities and Railway Top Brass.

9. Fire In Train

In case of fire in train prompt action is required to shift entrapped passengers through vestibules & emergency exits and extinguish the fire by all possible means. Fire extinguishers are provided in Locos, SLRs, Pantry Cars, AC Coaches etc. Preferably, train on fire should be stopped

- Out of tunnel, cuttings and fixed structures wherein access is restricted.
- Ahead of jungle & condensed localities.
- On flat plateau.

10. Accident inside the Tunnel:

Konkan Railway has number of tunnels which are equipped with ventilation, communication and lighting arrangements. Fire extinguishers are also provided inside tunnel. The important factors which have a direct bearing on the safe operations of the trains inside long tunnels and the detailed guidelines regarding procedure/action to be taken in case of an accident inside the tunnels are discussed in disaster management plan.

11. Approach Roads

It is essential to know the road approaches available over KR route as it will be critically important and facilitating rescue team to reach the site of accident, by quickest mode. These are illustrated and elaborated in Disaster Management Plan.

“Disaster Management” outlines broadly the various activities by different departments to cope-up with the situation. All officers and staff must familiarize

themselves with the guidelines included in the Disaster Management Plan of Konkan Railway which will help the Railway system to respond effectively in case of any disaster. Disaster management plan of Konkan Railway can be referred for detailed guidelines to provide relief/ rescue and mitigation on the occurrence of a disaster.

12. Role of Railways in the event Aircraft in Distress (Ref: Railway Board's letter No. 2003/ Safety (DM)/ 6/ 3 dtd. 08.01.2016) (CS No. 4 dtd 20.09.2016)

Railway officials can play an important role in assisting the Search & Rescue Organization by ensuring speedy transmission of information related to aircraft in distress to the Rescue Co-ordination Centre through the Railway Control Room for taking appropriate action. Railway controls, when requested by the rescue coordination Centre of alerting post to assist in locating a missing aircraft shall direct all stations and staff in the area to be on the lookout.

In the event the aircraft in distress falls on or near Railway lines or infringes Railway tracks, Railway control shall speedily transmit the information relating to the aircraft to Rescue Co-ordination Centre for appropriate action. Railway Controls when requested by the Rescue Co-ordination Centre of alerting post to assist in locating a missing aircraft shall direct all stations and staff in the vicinity of the area to be alert & on lookout.

Contact details of Aerodromes of Mumbai, Goa and Manglore are as below:

SN	Aerodromes	Operat or / in- charge	Telephone number				E-mail Address
			STD Code	Office	Mobile	Fax	
1	Mumbai	IVC(AAI/ MIAL) WSO(AT C)	022	26156400 26819332 26156500 26329112 26329130 26828088	9821442603	26828066	gargmanoj1 7@ rediffmail.co m
2	Goa	INDIAN NAVY AAI APD	0832	2540806 2538456 2541835	9823196393	2541610	apdgoa@ aai.aero
3	Mangalore	AAI APD ATC	0824	2220400 2220410	9448125412	2254175	apdmangalore@ aai.aero

APPENDIX - A

Details of ART/ SPARM & MFDTV

ACCIDENT RELIEF TRAIN (ART) :

ART configuration consists of 140T Brake Down crane of Gotwald make with Match Truck, 4 coaches (Equipment van, Equipment Van, MFD Van, Staff Van, Power Car), two BCNAHS wagons, One brake van and two BRNAHS wagons.

Spare of crane and rerailing equipments like Diesel / Electrical power packs, Jacks, bridges etc. are kept in equipment van. Another set of MFD rerailing equipments like Diesel / Electrical power packs, Jacks, bridges etc., hydro electrical rescue devices, fire extinguishers and gas cutting equipments, POMKA kit are kept in MFD van.

Mini kitchen along with cooking items and Officers / Staff retiring berths are available in staff van.

Electrical equipments like 7.5 / 10 KVA generators, portable generators, light fittings etc. and S&T equipments like walkie-talkies, megaphone, magneto phone, cell phone, etc are kept in Power van.

Engineering materials like sleepers, rails, rail cutters, pandrol clips, dip lorry etc. are kept in wagons.

Base Station : At Verna

SELF PROPELLED ACCIDENT RELIEF MEDICAL AND MFD TOOL VAN (SPARM & MFDTV) - SCALE I.

SPARM & MFD TV is Self Propelled Accident Relief Medical and MFD Tool Van and consists of three coaches – Power car, MFD equipment van and Medical van.

MFD van consists of rerailing equipments like diesel / electrical power pack, MFD jacks, bridges control panel etc., Electrical and hydraulic rescue equipments like spreader, cutter and rescue ram etc , S&T equipments like satellite phone cum fax unit, walkie - talkies, megaphones, magneto phone & cell phones.

Medical van consists of ward room and mini Operation Theatre room for attending stranded / injured passengers during accidents.

Power van consists of electrical equipments like portable generators, light fittings, etc. and main engine and mini office room. However , due to space constraints, location of some additional equipments may vary.

Base station: Ratnagiri and Verna.

ACCIDENT RELIEF MEDICAL EQUIPMENT (ARME) SCALE II: Based at the following stations :-

i) Mangaon ii) Diwankhavati iii) Chiplun iv) Sangameshwar Road v) Vaibhavwadi Road vi) Kudal vii) Madgaon viii) Cancona ix) Karwar
x) Bhatkal & xi) Udupi

AMBULANCE: is based at Ratnagiri station.

APPENDIX - B

JURISDICTION OF DISTRICT MAGISTRATES / COLLECTORS / DCs

Note : Jurisdiction and Headquarters can be changed by the State Government any time; as such Station Masters and Control Offices etc., should keep up to date list in their office.

Station From	Station To	District	Headquarter
Roha	Vinhere	Raigad	Alibag
Vinhere(Excl)	Rajapur Road	Ratnagiri	Ratnagiri
Rajapur Road (Excl)	Pernem (Excl)	Sindhudurg	Oros
Pernem	Karmali	North Goa	Panaji
Karmali (Excl)	Loliem	South Goa	Madgaon
Loliem (Excl)	Bhatkal	Uttara Kannada	Karwar
Bhatkal (Excl)	Nandikur	Udupi	Udupi
Nandikur (Excl)	Thokur	Dakshina Kannada	Mangalore

APPENDIX - C

JURISDICTION OF DISTRICT SUPERINTENDENT OF POLICE

Note: Jurisdiction and Headquarters can be changed by the State Government anytime as such Station Masters and Control Offices etc. should keep up to date list in their office.

Station From	Station To	District	Headquarter
Roha	Vinhere	Raigad	Alibag
Vinhere(Excl)	Rajapur Road	Ratnagiri	Ratnagiri
Rajapur Road (Excl)	Pernem (Excl)	Sindhudurg	Oros
Pernem	Karmali	North Goa	Panaji
Karmali (Excl)	Loliem	South Goa	Madgaon
Loliem (Excl)	Bhatkal	Uttara Kannada	Karwar
Bhatkal (Excl)	Nandikur	Udupi	Udupi
Nandikur (Excl)	Thokur	Dakshina Kannada	Mangalore

APPENDIX - D

JURISDICTION OF GOVERNMENT POLICE / RAILWAY POLICE:

Note : As in Appendix - B.

APPENDIX - E

JURISDICTION OF POSTAL AUTHORITIES

Note : As in Appendix – B.

APPENDIX - F

FORM 'A'

**Particulars of persons killed.
(use only one form for each person)**

1. Name of Passenger :
2. Father's Name / Husband's Name
3. Passenger's Address
4. Occupation
5. Compartment No. and Carriage Compartment No in which travelling at the time of accident
6. Particulars of tickets held from Station
To Station
Class Ticket No..... and Date
7. Position where the dead body Was found (Give full particulars).....
8. How dead body disposed of (Whether handed over relatives, police etc.) (Give full particulars)
9. Details of belongings killed and how disposed (whether boxes or suit-cases or bedding etc. approximate Weight and size and whether Relatives etc.)
10. Any other information

Place :
Date : ..

Signature ____
Designation .

APPENDIX - F
FORM 'B'
PARTICULARS OF PERSONS INJURED
(Use only one form for each person)

1. Name of Passenger
2. Father's Name / Husband's Name
3. Age
4. Occupation
5. Address
6. Compartment No. and Carriage No. Compartment No. In which traveling at the time of accident
7. Particulars of tickets held From StationTo Station Class Ticket No. and Date
8. Nature of injuries and full Description
9. Whether given First Aid on the spot, if so nature of aid rendered and time
10. Whether sent to hospital for treatment, If so how and at what time, or whether allowed to continue his journey to destination
11. Whether made over to relatives and First Aid was given

Give details of belonging of the injured And how disposed off

Any other information

Obtain injured person's statement on the sub- jointed form by tearing off and handing portion below the dotted line. If he is in a sufficiently sound state to give a statement. This statement should be signed by the Passenger and attached to this

Place :

Date : ..

Signature ____

Designation

Counter signature of Medical Officer_

Officer in charge of the operation at the site of the accident

STATEMENT OF INJURED PASSENGER

Name of the Passenger Statement of the passenger ____

Place :

Date : ..

Signature of Passenger ____

APPENDIX - F

FORM 'C'

EYE WITNESS STATEMENT

(Use only one form for each person)

1. Name of the eye-witness
 2. Father's Name / Husband's Name
 3. Age
 4. Occupation
 5. Address
 6. Carriage in which traveling at the time of accident
 7. Particulars of ticket held From..... To____Date____
..... Class.....Ticket No.
 8. Time, Date and Place of Accident : Time..... Date
..... Place
 9. Description of Accident
- Place :
- Date :Signature of the Passenger
- *****

APPENDIX - G

Sub: Relief to Passengers of Train / Trains involved in accidents.

1. Arrangements for drinking water, food and beverages:
 - I. Refreshments to be given to passengers involved: Food and drinks must be provided free to passengers involved in the accident as necessary. The careful account must, however, be kept of the refreshments thus served. COM/CCM/RRM have full powers to incur expenditure in any one accident towards the payment of bills in connection with refreshment supplied to passengers at the scene of accidents. The funds required may, if necessary, be drawn from Station earnings.
 - II. The senior-most official at site shall have the powers to arrange conveyance of the affected passengers free of charge by any available mode of transport and also incur expenditure for carriage of passengers luggage, etc.
2. A proper account should be kept of the expenditure incurred duly supported by the vouchers to enable post-audit of the same after the event is over. A statement of the expenditure incurred should be signed and put up by the authorized officer to the CE /RRM within a period of one month after the accident for his sanction duly post-audited with reference to the funds provided for on this account as also the supporting vouchers for the expenditure incurred. In case any specific area where glaring instance of excess expenditure in comparison to the event is observed, it should be specifically brought to the notice of RRM so that corrective action for non-recurrence of such a situation in future, is taken. Chairman and Managing Director may lay down, in consultation with their Director (Finance), the overall limits for the purpose of sanctioning of expenditure (not for incurring at the time of accident), beyond which specific sanction of the Managing Director with Finance concurrence may have to be obtained for regularizing the expenditure after the event in such cases. The Post-audit report should incorporate the various aspects of item-wise expenditure and observations of Dy. FA & CAO and clarification of the authorized officer for sanction by the competent authority. The check note of the Dy. FA & CAO should indicate the extent of check that was possible with reference to vouchers submitted.

APPENDIX - H

Free of Cost of Dispatch of Telegram / Fax in case of serious Accidents.

The Railway Board vide their letter No. 703-TG-I-57-64/dated 6th November 1957, have agreed that inland Telegrams may be dispatched free of cost to the closest relations conveying the news of safety of those travelling by a train involved in a serious accident.

As the circumstances under which such telegrams / fax should be sent free of costs would depend on the merits of the case i.e. the nature of the accident, the senior most officer in charge of the local arrangements regarding the accident should decide when this facility is to be granted.

The telegram / fax will only convey information about the safety of the sender travelling in the train / trains involved in the accident. Only one telegram / fax should be issued for a passenger travelling in the train or trains involved in the accident.

The cost of such telegrams / fax will be taken to account in the Coaching Balance Sheets taking corresponding special credit, quoting reference to RRM's letter authorizing the S.M's to book the telegrams / fax free of costs on such occasions.

The Stations Masters of stations at which such telegrams / fax are accepted will prepare a statement in quadruplicate showing the sender's name, the addressee and his address, the TMR No. fax reception and date and the class and costs of the telegram / fax and send one copy of each to the RRM, CCM and Traffics Accounts Office.

If a serious accident occurs on a station which is not a Railway Telegraph Office or Fax, such Telegrams should be sent to the Post Office for clearance if the same is nearby. The specimen authorization form to be used for this purpose is appended below. The authorization can be issued by an official not below the rank of an inspector. RRM to submit a copy thereof to the Account Office concerned together with the original receipts obtained from the Postal Department. On the office copy of the authorization letter, the postal date stamp of the Post Office where the telegrams / fax were handed in must be obtained and the same preserved for a year.

SPECIMEN FORM

STATION:.....

DATE:.....

TO

THE POST MASTER,
..... POST OFFICE

Dear Sir,

I certify that the attached Inland Telegram
(.....in numbers) are from bonafide passengers of train No:
.....running between.....Station and.....station which
have met with an accident at.....Hours on date and are addressed to their closest relations
conveying the news of their safety and request that these may be telegraphed immediately
without pre-payment.

The cost of these telegrams may please be debited to the Financial Advisor and Chief
Accounts Officer, Konkan Railway Corporation Limited, in accordance with the agreement
arrived between Ministry of Railways (Railway Board) and P&T Department vide letter's Office
Memo No.....

Dated

Dated:

Signature in full

Encl: Telegrams.

APPENDIX - I

(Ref.: Board's xxR No. 85/Safety (A&R)/1/20, Dated 14th June, 1985.)

Issue of Complimentary passes to the next of Kin of Victims as well as to the surviving victims of the Railway accidents.

The Board have authorized the Railways to issue complimentary passes to the next of Kin of Victims from any station in India to the site of accident and back to their destinations as well as to the surviving victims who are discharged from the hospital to their destination.

The class of passes should, of course, be the same in which the surviving victims were traveling or higher if recommended by the doctor. The class of pass for the relatives may be determined according to the status of the person. The Board desires that while issuing such passes the following aspects should be borne in mind.

1. The issue of such complimentary passes may be centralized in the Corporate Office and should have the approval of the Chairman and Managing Director.
2. Such complimentary passes may be issued to not more than two relatives of the injured or deceased passenger.
3. Sufficient safe guards may be adopted so that these passes are not misused.
4. Break journey on such passes should not be allowed.
5. The complimentary passes so issued may be included in the half yearly statement submitted to the Board in accordance with their letter No. E (G) 57/PS 5-6/2 dated 18th March, 1957.

APPENDIX - J

Sikri Committee Report - Definition of Accident

Copy of the Railway Board's Letter No. 88/Safety (A&R) 29/8 Dated 18.4.88 addressed to

**The General Manager,
Indian Railway.**

Sub : Sikri Committee Report - Definition of Accident.

1. Attention of the Railways is drawn to paragraphs 458 to 461 of Chapter X of the Railway Accidents Inquiry Committee 1978 (Sikri Committee) wherein the Committee has gone into the question of the scope of the term 'Accident' and the manner in which the accidents statistics should be compiled. Paragraphs 458 to 461 of Chapter XII of the Report.
2. It would be observed the Sikri Committee divided 'accidents' under three main groups and has emphasized the need to concentrate on the incident falling under groups I & III thereof. With a view to drawing pointed attention to the incidents which really should fall under the category of 'accidents' the Committee desired that a distinction should be made between I & III on the one hand and those incidents which can be termed as 'accidents' only the technical sense of the term. The Committee pointed out that groups I & III constitute one fourth of the all 'accidents' shown in the statistics as compiled as present. The remaining three fourth are really failures of railway equipment and other unusual incidents.
3. Board had accepted these recommendations of the Committee and this question has been further examined to bring about clarity in those incidents resulting in mishaps and other unusual incidents.
4. The term accidents, as used in railway parlance, has a very wide connotation and is used as a generic term, encompassing in its ambit, a wide variety of occurrences which include not only those which result in casualties and damage to rolling stock, track, etc. but also those which may cause interference in the normal working. Over the years, however certain other types of occurrences have also been classified as accidents, which correctly fall in the realm of law and order (for example murder in a train, theft of railway property). While other cases may not even have relevance to train working. With a view to demarcating clearly the various types of incidents. Board has decided that the occurrences listed in classes A to P (excluding I and O in the Accidents Manuals of the Railways may be classified as given hereunder.

The term 'accidents' will apply to the incidents falling under categories (i) and (ii) given below. The incidents, falling under categories (iii) to (v) shall not be termed as 'accidents' and shall be referred to by the heading given hereunder. For instance, _____ incidents included in category iv hereunder shall be referred to as -'Equipment Failure' and not as 'accidents'

5. Annexure II attached herewith gives the revised head under which each occurrences will fall i.e. accidents classes A to P (except I and O as per the existing Accidents Manual classification).
6. Class P of the Classification is a residuary class where Regional Railways can add certain type of occurrences which they consider fit to be classified under the generic term 'accidents'. The incidents covered under this class very widely from railway to railway. A separate circular indicating standardized sub-classification will follow separately.
7. The following will be the grouping of the occurrences.
 - i. Consequential train accidents: These will include collision, derailment, accidents at level crossings and fire in trains as the present. These may have serious repercussions in terms of casualties and damage to property.
 - ii. Miscellaneous accidents: These accidents include certain types of train accidents not covered under categories (i) above (for example Train Running over Cattle, where derailment is not caused) as also yard shunting/sliding accidents.
 - iii. Breach of Rules (indicative) : These are at present termed as indicative Accidents. These are potential hazards and include cases of Trains Passing Signals at danger, Breach of Block Rules and Averted Collision.
 - iv. "Equipment Failure": These include cases like engine failure, rail fracture, signal failure, OHE failure etc. not resulting in a mishap.
 - v. "Unusual Mishap" like murder, suicide within railway premises, thefts attempted thefts etc.
8. Publication of statistics shall not be affected by the above rearrangements. Statistics as published hitherto shall continue to be published for the purpose of comparison at least for a period of five years i.e. till the financial year ending 31st information regarding various categories e.g. for consequential accidents, breach of rules, equipment failure etc. March, 1993. However, separate chapters will be devoted to.
9. Train partings shall be shown under a separate head but in the chapter on statistics relating to equipment failure.
10. Action on all incidents whether falling under the category of Accidents or Breach of Rules, Equipment failure or Unusual incidents will be treated with the same seriousness as hitherto and other procedure regarding advice to various authorities, follow-up action, etc. will continue to be taken as at present. For instance, the extant instruction on the punishment to be meted out to the delinquent staff responsible for Breach of Rules, etc. will continue as at present.

APPENDIX – K

Weather Warning Messages

Joint Engineering & Operating Department's Circular

1. Arrangements exist with the Meteorological Department of the Government of India for issuing telegrams / fax of warning, whenever storms, gales or heavy rainfall are expected. The conditions under which warnings are issued are detailed below :-
 - i. Amount of rainfall considered : 2 inches / 50 millimeters dangerous and above in 24 hours.
 - ii. Wind velocity considered dangerous : 40/65 kilometers per hours and over
 - iii. Period when warning will be given : Throughout the year.
2. The entire Konkan Railway has been divided into two Regions.

List showing these Regions, the Railway officials to whom the warning telegrams/ Fax will be addressed and the Meteorological Department offices which will issue the warning telegrams / Fax, is shown at page.

3. Weather warning telegrams / Fax will be classified as XXW (Weather Warning) or 000 (Weather immediate). These telegrams will be normally delivered by the P & T Office direct to the Railway Control Office.

In addition to telegraph / Fax warnings, Meteorological Centers at Colaba, Mumbai will communicate weather warnings on the Zones controlled by them, on telephone locally to the Chief Controller, Control Office, Belapur.

Long distance telephone calls will not be resorted to normally. But on special occasions, this mode of communication may be utilized by the Forecasting Officer at his discretion.

4. On receipt of a weather warning telegram / Fax in the Control Office, the following action will be taken :-
 - (a) Action by the Control Office.
 - i. The Chief Controller or in his absence the Controller must immediately repeat the weather warning telegram Verbatim on the telephone or by a written message to the CE/ RRM/ Sr.REN/ REN/AEN when his headquarters is at the same station.
 - ii. At the same time the Chief Controller or in his absence the Controller must immediately arrange for the weather warning telegram to be repeated verbatim to the following officers on the control telephone. The Controller repeating the telegram must record the initials of the S.M. on duty to whom the telegram has been repeated.
 1. The A.E.Ns and the JE/SE/SSE (P.Way) through the S.M.s concerned.
 2. All the S.Ms. in the region concerned.

NOTE: In respect of section - when the control phone is interrupted an ~XXR (immediate) telegram / fax / control message should be issued by the Chief Controller or in his absence the Controller to the officials referred to above

The preamble of the weather warning telegram / Fax and the text as received from the Meteorological Department should be reproduced verbatim in the text of the XXR telegram / Fax.

The text of the message should be worded as shown below :-

Regional Meteorological Centre _____ (here enter the name of Meteorological Center) XXW / 000 (insert whichever class is used by the Meteorological Department) telegram coded _____ (insert code time of the original message) Dated (date of original message) reads _____.
(reproduce the text of Meteorological telegram / Fax verbatim)

(iii) A register should be maintained in each Control Office showing full particulars of the receipt and action taken on the weather warning telegram/Fax, showing the date and time of receipt of weather warning telegram, the full text of the telegram / Fax, and the date and time of dispatch of telephonic advice to the officials concerned, and the initials of the S.M. on duty to whom the telegram / Fax has been repeated.

(b) Action by the Station Master.

On receipt of weather warning advices from the Controller, the S.M. will take the following action.

1. The S.M. on duty where A.E.Ns / JE/SE/SSE (P.Way) are at headquarters will immediately hand over to the parties concerned a copy of a verbatim telegram / Fax received from the controller and obtain an acknowledgement. If the AEN, JE/SE/SSE (P.Way) is out of Headquarters, the S.M. will advice the Controller on duty, who will then be responsible for ensuring that the contents of the telegram are communicated verbatim to the Engineering Officers at the station concerned.
2. The S.M. on duty will also send written memo for the JE/SE/ SSE (P.Way). PWS/APWS of the station, yard gang, explain to him the contents of the telegram / Fax / weather warning message and obtain his acknowledgement.
3. A register will be maintained at each station in the proforma given below.

Date and time of receipt	Content of the message in full	Name and designation of official to whom message was repeated	Signature of the S.M. on duty

The office copy of the telegram / Fax on which an acknowledgement has been given should also be pasted in the register.

(c) Action by the JE/SE/SSE (P.Way).

- i. The JE/SE/SSE (P.Way) on receipt of weather warnings, will arrange to advise monsoon patrolmen, watchmen and PWS/ APWS to be extra vigilant. During the fair season, he will introduce monsoon patrolling as soon as possible and post watchmen at all vulnerable location and bridges by day as well as by night for a period extending upto 48 hours beyond the period specified in the weather warning telegram.
- ii. Should there be very heavy rain or a severe storm during the period, whether during the monsoons or fair season, the PWS/APWS and trackmen, on their own initiative, shall commence monsoon patrolling by day as well as by night for the duration of warning and 48 hours beyond.
- iii. The JE/SE/SSE (P.Way) should be out on his section as far as possible by trolley, during the period of warning and 48 hours beyond.

(d) Action by the PWS/APWS

On the receipt of advice from the S.M. the PWS/APWS will take the following action.

- i. During the fair season, the PWS/APWS will depute two reliable trackmen provided with patroller's equipment for patrolling the block sections on either side.
 - ii. During Monsoon period, the PWS/APWS of the station yard gang will send two trackmen in opposite directions to alert patrol men, and watchmen.
5. A copy of this Joint Circular should be available in each Control Office, Station Master's office and with each JE/SE/SSE (P.Way).
6. List of weather warning zone.

(a)

Maharashtra Zone (Mumbai)	Raigad, Ratnagiri, Sindhudurg
	North Goa, South Goa
Karnataka Zone	Uttara Kannada, Udupi,
	Dakshina Kannada

(b) Office to be addressed.

Regional Railway Manager (Ratnagiri and Karwar) and COM / Chief Controller, Control Office, Belapur.

(c) Meteorological Offices.

Regional Meteorological Center Colaba, Mumbai.
Regional Meteorological Center, Bangalore.

APPENDIX – L

INSPECTION OF ROLLING STOCK IN CASE OF ACCIDENT

The following stock involved in accident must be inspected in the presence of nominated team of Supervisors and results should be recorded in prescribed format.

The main items of inspection are as under:

1. **WHEEL GAUGE:** Wheel gauge is the distance between inside faces of the flange on the right and left side wheels of an axle (fig.1).there should be no variation in the values of wheel gauge- measured at four points 90 degrees part on a wheelset.

However the actual value of the wheel gauge can vary as per – tolerance gives in Table 1 (IRCA part III Para 2.8.7):

Table : 1

	B.G	M.G
Standard	1600 mm	930mm
Maximum	1602mm	932mm
Minimum	1599mm	929mm

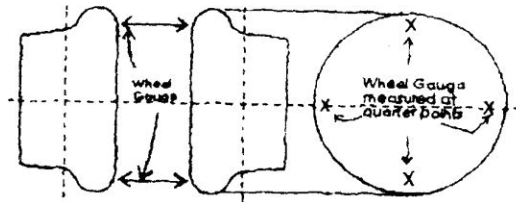


Fig.1 Measurement of Wheel Gauge

The wheels are required to be gauged at three or four - quarters (as per possibility) and recorded duly indicating the following:

Tightness or slacking of gauge

Whether any indication exists about shifting of wheel on the axle.

NOTE: It must be ensured that the back surfaces of wheel are cleaned thoroughly before measuring the wheel gauge in order to avoid erroneous readings.

- 1.1 If the wheel gauge is more than permissible limit, there exists a relatively newer wheel hitting the nose of crossing. This happens because the wheel gauge is one of the parameters affecting the clearance at check rail opposite the nose of crossing.
- 1.2 If the wheel gauge is less than minimum value, there is possibility of wheel hitting at the back of a tongue rail while passing through the switch and thus damaging the tongue rail.

- 1.3 The variation in wheel gauge after lowering the coach body on wheels was examined by RDSO Lucknow and circulated to all railway vide their letter no. MC/WA/GENL, Dated 27.06.88 as follows:

The question of variation in the wheel gauge under no-load and loaded condition has been examined by RDSO. The calculation for the 15 ton BG axle under tare load condition indicates that a variation of about 3 mm in the wheel gauge when measured at the top and bottom location in the vertical plane is likely to take place due to bending of axle under coach load

This variation in wheel gauge under loaded condition, however, has no bearing on the safety of coach operation. However, if the measurements for wheel gauge are done in horizontal plane passing through the axle then the effect of bending of the axle will not be there.

It is therefore clarified that the wheel gauge tolerance of 1600 ± 2 mm as laid down in IRCA rule book is required to be checked under “no- load” conditions.

2. BENT AXLE

A bent axle wobbling during motion causing severe vibrations. In order to confirm whether an axle is bent or not, it must be checked carefully on a sensitive machine or measuring table.

3. **TYRE PROFILE:** The outer periphery of a wheel which comes in contact with the rail is known as tyre profile. The standard tyre profile of B.G. is the fig.2

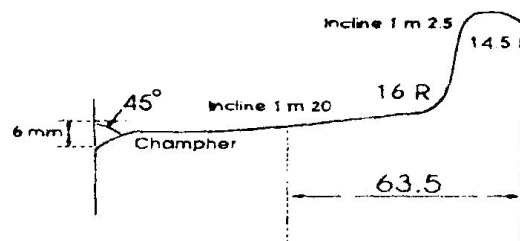


Fig. 2 Tyre profile of a new wheel

The important features of the tyre profile are as under :

- 3.1 A chamfer of 6 mm at 45 degrees on outer edges. This is provided to avoid sharp edges and also prevent small burs (chips of metal) projecting beyond the outer surface of wheel due to spreading of small thin layer on outer periphery of the tyre.
- 3.2 An upward inclination of 1 in 20 towards inside. It is provided to ensure that the wheels remain in central position of the track and allows the outer wheel to travel on the higher tread diameter and inner wheel on a smaller wheel diameter on curves.
- 3.3 Root radius : A root radius is provided at the bottom of the flange. This radius for B.G is 16 mm.

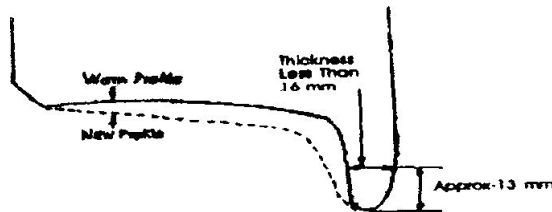
34 Height of wheel flange: The height of wheel flange is measured from the tread of the tyre .it is kept .28.5 mm B.G. this height also forms an important part in determining the tyre profile.

4. **WHEEL DEFECTS:** The following aspects should be checked on the suspected wheels:

- a) Condemning limits
- b) Flat places on tyre/skidding
- c) Flanges sharp/deep /thin
- d) Radius too small at the root of the flange
- e) Gauge slack/ tight
- f) Cracks

The above mentioned defects can be detected with the help of Tyre defect gauge and Wheel gauge meant for this purpose.

4.1 Thin flange: When the flange thickness reduces to less than 16 mm for B.G., The flange is called a thin flange. It should be measured at the distance of 13 mm below the flange tip (fig.3)



1Fig.3 Thin flange

A thin flange increases lateral play between the wheel set and track and increases:

- Lateral oscillations adversely affecting Y/Q and
- Angularity of wheel set on run.

4.2 Sharp flange: This occurs when the flange wears in such way that radius at the tip of the flange becomes less than 5 mm. The flange forms a fine sharp edges. Due to this, the wheel set can take two roads at slightly gaping point or wheel may ride over the chipped tongue rail (fig.4)

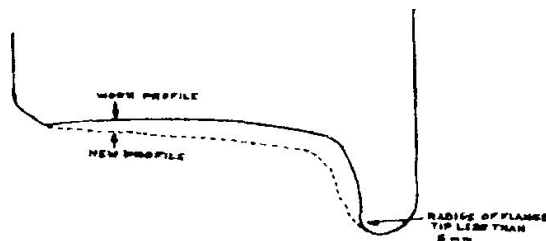


Fig. 4 Sharp Flange

4.3 Worn out flange : When radius at the root of the flange becomes less than 13 mm, it is called worn out flange. A worn out flange increases the value of \square (fig.5)

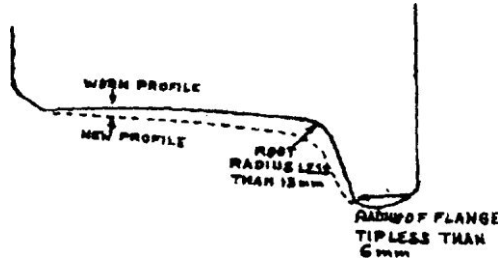


Fig.5 Worn out Flange

4.4 Deep flange: When the depth of flange, measured from the flange top to a point on the wheel tread (63.5 mm away from the back of B.G. wheel), becomes greater than 35 mm, it is called a deep flange ($35 - 28.5 = 6.5\text{mm}$) as shown in fig. 6 under this condition. The wheel flange would tend to ride on the fish and check-block-and may damage the track components.

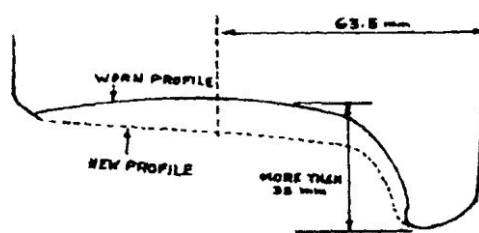


Fig.6 Deep Flange

4.5 False Flange/Hollow Tyre : When the projection of outer edge of the wheel tread below the hollow of the tyre exceeds 5 mm, the outer edges of the wheel forms a false flange and the worn tread is called hollow tyre (Fig.7)

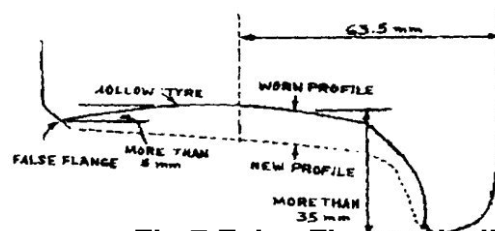


Fig.7 False Flange / Hollow Tyre

The hollow tyre has the danger of developing a false flange, there is no effect on angularity or eccentricity but wear on tyre has the effect of increasing the conicity of the wheel tyre. This reduces the critical speed of the rolling stock beyond which excessive hunting and oscillations take place thereby – increasing the flange force “Y” and the chances of derailment.

A false flange may spilt open the points while travelling in trailing direction while negotiating the crossing (fig.8). It may tend to get wedged in between the tongue rail and the stock rail.

The wheel going across the wing rail would then get lifted as instead of travelling on the tread portion, it would be travelling on the false flange. This will make the wheel to suddenly lift up and down near the nose of the crossing.

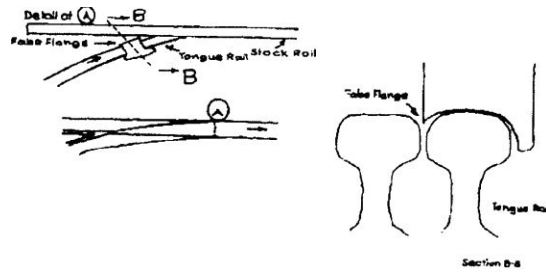


Fig.8 Hollow tyre on a switch crossing

- 4.6 Flat Places on Tyre:** Wheels having flats on tyre damage the rails due to impact and cause high contact stresses. This may cause rail fracture leading to derailment. The maximum permissible value of flatness on a B.G. wheel tyre is as under (Fig.9).

Good stock IRS – 60 mm Coaching stock – 50 mm

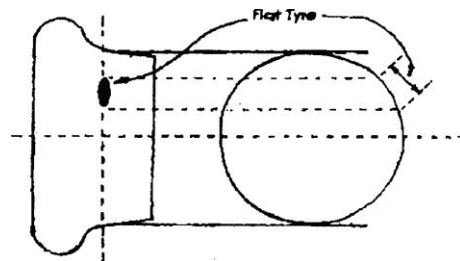


Fig. 9 Flat tyre

- 4.7 Difference of wheel diameter on tread:** Wheel diameter is measured on the tread at a distance of 63.5 mm from the inside face of the the wheel in case of B.G.(Fig 10). Two measurements 180 degree apart should be taken for each wheel. No limits have been laid down or prescribed for variation of wheel diameter on the same axle during service.

(Ref : GM (Mech) letter No. M/153/C&W/Appendix dtd. 23rd September 2004 from the Office of CRSE (Fr)/Central Railway.) The workshop leaving limits for the difference in diameters are indicated in table two.

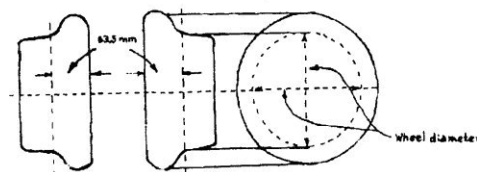


Fig.10 Measuring wheel diameter

Limits of wheel diameter variation on the same axle: the limit of variation of wheel diameter s on the same axle during service is 1.5 max, vide Rly. Bd. letter No. 86/M/(N)/960/8 Dated 22.8.86. the workshop leaving limits for the difference in diameter are indicated in table 2.

Table 2 workshop Leaving limits for wheel Diameter on BG

	On the same Axle(mm)	On the same trolley	On the same coach or wagon (mm)
a) Four wheeled trolleys	0.5	0.5	13
b) Six wheeled trolleys	0.5	6	6
c) Six Wheeled units	0.5	6	6
d) Four wheeled units	0.5	--	25
e) Power coaches	0.5	5	13

5. AXLE BOX LATERAL AND LOGITUDINAL CLEARANCE:

5.1 Later play between B/Brass & journal collar

Minimum – 5mm

Maximum – 10mm

5.2 Total lateral clearance between Axle guard and axle box groove - 10 mm max.

5.3 Lateral longitudinal clearance between axle box lug and horn cheek for box type trolley:

	Lateral	Longitudinal
Minimum	20 mm	12mm
Maximum	25mm	18mm

Due to spring suspension the lateral motion induced by track irregularities is dampened. Experiments have established that the lateral force due to hunting is much higher for a vehicle beyond above clearances. On the other hand below minimum limits given above, freedom of wheels during run gets restricted beyond desirable limits. Bent axle guards will not be able to move up and down freely the axle box will get jammed making spring assembly spring assembly ineffective thus increasing proneness to derailment

6. BUFFING GEAR

6.1 Buffer projection limits from head stock:

	For long case buffers	For short case buffers
Maximum	635 mm	456 mm
Minimum	584 mm	406 mm

Note: i) Buffer projection for POH stock should not be less then 625mm for long case and 445 mm for short case buffers.

ii) No dead buffers shall be permitted from the sick line, the buffers shall be considered dead when the projection is below the prescribed minimum limits.

6.2 Buffer height: Buffer heights in BG coaches should be (Para 2.15.2 IRCA Part IV)

Empty	Loaded
1105mm	1030mm

Note:

- I. Buffer heights in BG Stock shall be within the limits and should be measured on level track.
- II. The measurement should be taken from the centre the buffer socket to the top of the rail head. The buffer height should never be taken from the centre of the buffer face because it will not give correct value.
- III. While recorded buffer height, it should be ensured that buffer bolts are in tight condition and buffer is not drooping. If it is drooping, the amount of drooping should be measured and recorded.
- IV. To make up buffer heights to maximum permissible limits, a packing piece of required design and size may be inserted :

For Goods stock: between axle box crown & bearing spring buckles.

For ICF coaching stock: between lower spring (Dash pot spring) & axle box wing.

6.3 Displaced Buffer : Buffer displaced 35 mm in any direction from its normal position in case of adjacent stock and 38 mm for coaching stock are called displaced buffers. Loading or spring characteristics, the buffer draw gear takes an inclined position in case of sag on the track or brake application on a down gradient, the buffers exert compressive forces. It makes the lighter vehicle prone to derailment due to lifting, because of vertical component of the – buffing force.

—————

APPENDIX – M

General Guide lines and Proforma .

1. The proforma given in this appendix are required to be filled at the site by the Sr. Supervisors of the respective department in presence of the TI/ Representative of traffic department and signed jointly by them and countersigned by the senior most officer present at the site.
2. The Proforma should form a part of the proceeding of the inquiry.

3. The sketch of site of the accident

The engineering representative should prepare dimensioned sketches adequate for the preparation of a scale plan covering the entire site of the accident. In preparing the sketch due care should be paid to the following instructions:

1. The sketch giving train number, date, kilometer of the site of accident should be properly labeled.
2. The north point should be indicated.
3. It should indicate prominently the direction of movement and also the names of stations in rear and advance of the accident site.
4. It should cover a length of about 300 meters behind the point of accident and almost an equal distance in front.
5. A pair of the lines must denote each track of P. way.
6. The position of the level crossing, Telegraph post, Bridges, Tunnels, Gradient, post with gradient symbols, curves, de-marking the beginning and end length of transitions should be indicated. It should also indicate:
 - a. The position of the all derailed vehicles & the marks left by them either on sleepers, rails or ballast.
 - b. Point of mount with position of rails joints on either side.
 - c. Point of drop.
 - d. The pair of the wheels of the first derailed vehicle.
 - e. The position in which every displaced rail/wagon or part of a rail/wagon and detachable components were found.
 - f. In all cases dimension from nearest kilometer post and centre line of track should be given.
7. In case of accident within station limit, sufficient details about the station layout should be shown in order to fully explain the movement of the affected train in relation to the topography of the place. The signal aspects at the time of accident should be correctly depicted.
8. The distance of the site of accident from a permanent structure to fix the site of accident precisely should be included.
9. The distance should be indicated to show the extent of the distance caused in the P.Way or train composition on account of the accident.
10. A good sketch should always accompany the proceedings duly signed by the president. If necessary, more than one sketch should be enclosed, one clarifying the yard layout & the system of working it and other giving details, such as, position of wheels, wheel marks, etc. In the former, one line should be used to represent both rails

of a track and as such portion of the station yard (In case of accident within station limit) should be covered as may be necessary. All necessary details relevant to the issue must be embodied in the sketch. The terminal station on the Down side should be mentioned on the right extremity of the sketch, the terminal station on the up side being mentioned on the left extremity. If the accident takes place within station limits the shorter sketch should be based on the SWR diagram.

11. Careful observation of clues and a comprehensive record thereof is vital for accident inquiry. In addition, a comprehensive record of track and rolling stock parameters and operating features is required for investigation of derailments.
12. There are two broad categories of derailment.
13. Sudden derailment caused by wheel set jumping of the rails. Such a derailment indicates that the derailing forces were high enough to suddenly force the wheel off the rail. These are typically caused by failure of vehicle/ track components, obstruction on track, entanglement of hanging parts of rolling stock etc. These derailments are characterized by a short mark on rail table between Point of Mount and Point of Drop. In some cases the Point of Mount may even be absent.
14. Derailment by flange climbing, caused by wheel mounting the rail in a relatively gradual manner. It indicates that the derailing forces were powerful enough to overcome the normal stabilizing forces, yet not sufficient to cause a sudden derailment. Such derailments are characterized by a longer mark on the rail table between Point of Mount and Point of Drop. Track and rolling stock parameters and operating features influence the rail-wheel interaction forces and, hence, their complete record and a comprehensive analysis is required to arrive at the mechanism of derailment. Cause and consequence of derailment are required to be differentiated through this comprehensive analysis.
15. Locating and examining the wheel mounting mark(s) at the initial point of derailment is very important for identifying the category of derailment. Precise measurements and critical and detailed examination of the wheel mounting marks should be made e.g. their length, strong or faint, broken or continuous, single or multiple, etc. Photographs should be taken of such marks, not only on the rail, but also on the fastenings, sleepers and ballast.
16. Derailment proneness increases with increased Lateral wheel force, reduced Vertical wheel load (Off loading) and increased Positive Angularity of wheel. Derailment proneness becomes substantially higher in case of axle moving with a persistently positive angularity. Track and rolling stock parameters and operating features should be critically analyzed for their contribution towards these causes. In case of derailments in curve, proper functioning of Bogie rotation system to ensure undue angularity needs close examination. Contribution of track twist and spring defects and twist in bogie frame/ vehicle under frame to derailments caused by wheel Off loading needs to be analyzed. In case of derailments at high speed, parameters affecting vehicle oscillation and damping thereof needs a close analysis.
17. While analysing the mechanism of derailment, relative contribution of track and rolling stock parameters to the rail-wheel interaction forces needs a comprehensive analysis. Reference should be made to the safety limits/ Maintenance limits specified in IRPWM/ IRCA Rules/ Maintenance Manuals.

18. Proforma for measurement of locomotive, wagon, and carriage are attached as annexure-A, B and C respectively for recording the details. The joint measurement to be submitted by senior supervisors shall not be complete till all the measurement of rolling stock and track as per enclosed proforma have been recorded. Only completed joint measurement w.r.t. rolling stock and track shall become a document to be relied upon by the inquiry committee for drawing conclusion regarding cause of accident.
19. No inquiry shall be completed before the complete measurement of rolling stock and track is available and made part of the inquiry report. inquiry Committee may get additional measurements done as per requirement of the derailment case.
20. The photographs of the concerned sections of track and part of rolling stocks shall be taken and annexed in the inquiry report. ART personnel should be trained for identifying such relevant part of track and rolling stocks involve in the accident.
21. In case of derailment of passenger trains causing injury to passengers, video recording of the concerned part of track and rolling stock shall be carried out by nominated ART personnel, trained for the purpose.
22. Photography & videography of accident site shall be with great care & precision, similar to a crime scene photography/videography. ART personnel nominated for this shall be suitably trained for the purpose. The photographs, videos should be self explanatory such that relevant conclusion can be drawn.
23. Site sketch of the derailment/accident location shall be prepared giving due care that all the relevant items are included along with the dimensions. A sample sketch is attached for the guidance. Instructions for the preparation of sketch of the site of accident has given in "Accident Manual" shall be followed.
24. Preservation of relevant clues, documents& photographs/videography of the accident scene shall be done under supervision of Safety Officials of the Division.
25. M&C report from RDSO must also be part of accident inquiry report in case accident is attributed to breakage of any component of track or rolling stock.
26. In case of a suspected sabotage, Tell-tale sign must be preserved and recorded.
27. If rail/weld failure is suspected to be cause of derailment, assessment of impact loading to which the rail/weld was subjected to prior to its failure becomes important. In such cases, WILD data for few preceding trains shall be analyzed for critical alarms and any critical alarm shall be brought out and deliberated by inquiry committee.
28. Observations of SM's Panel need to be recorded in case accident takes place in station area.
29. Speed recorders and event recorders in the locomotives shall be freezed immediately post the accident. SM's control panel shall be freezed till the time position of the knobs, switches, points & crossings etc. are jointly recorded. It is the responsibility of the concerned controlling officer / safety officials to ensure freezing of the above. Safety official shall take into custody of all the relevant documents, broken parts etc.
30. Any other details considered necessary.

Proforma for Motive Power/ Locomotive (Diesel & Electric)

Proforma to be filled in case of accident /derailment when loco is involved in accident.

1. Basic information:
 - a. Date of Accident:
 - b. Train No. :
 - c. Loco Class:
 - d. Loco Number:
 - e. Loco manufacture year and place:
 - f. Base Shed of Loco :
 - g. Date & Place last POH :
 - h. Kilometres earned after last POH :
 - i. Date & place of last major inspection:
 - j. Date & place of last schedule inspection:
 - k. Whether any schedule is overdue? :
2. Give brief particulars of the safety items not provided or provided but missing/not working

Whether Loco is provided with:

Safety fittings	Provided	Working
Headlight		
Speedometer		
Speed Recorder		
Flasher light '		
Horn		
Brake System		
VCD		
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SUPERVISOR (C&W/ Loco)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

3. Check & record the observations as follows:
 - a) Position of control handles, cutout cocks etc after the accident.
 - b) Functioning of brake synchronizing valve-whether working or not.
 - c) Position of brake blocks after the accident- whether applied or not.
 - d) Condition of cattle guard.
 - e) Any sign of seizure of roller bearing in Axle box including condition of its components

- f) Condition of Pivot and Side Bearer arrangement of bogie including obstruction to Bogie rotation.
- g) Condition of Friction Damper components/ Hydraulic Dampers.
- h) Condition of Traction Rod/ Guide Rod including its connection.
- i) Condition of Traction Link including its connection.
- j) Condition of Lateral Stop components between Bogie and Loco body underframe.
- k) Any other observation in respect to mechanical defect of the locomotive, which might have any bearing on safe running of loco.

Note: Defective or broken material should be sent to CMT for testing, if necessary.

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4. Measurement for Wheels for All Classes of Locomotives with wheel gauge (04 locations applicable for Bo-Bo Locos)

Sno.	Description	Observed Value (in mm)			Remarks
1	Particulars-of axle (ID No.)	1			
		2			
		3			
		4			
		5			
		6			
2	Diameter of wheel at tread		LH	RH	
		1			
		2			
		3			
		4			
		5			
3	Wheel thickness Flange		LH	RH	
		1			
		2			
		3			
		4			

		5			
		6			
4	Wheel Root wear		LH	RH	
		1			
		2			
		3			
		4			
		5			
		6			
5	Tread wear		LH	RH	Tread wear should be measured from tread at 63.5 mm from wheel gauge face (from the back face of flange) in BG and at 57mm from wheel gauge face (from the back face of the flange) in MG.
		1			
		2			
		3			
		4			
		5			
		6			
6	UST of Axle: Give the date of last UST test done	Axle	Observation		Information is relevant in case of axle breakage
		1			
		2			
		3			
		4			
		5			
		6			

Notes:

1. Wheel number one is the outer end axle of truck under the short hood and wheel count increases towards the Long hood on diesel loco, whereas for Electric Loco, wheel number one is the outer end axle under Cab-1(Cab- | is that side of the loco which has the compressors and Cab-2 is that side of the Loco which has the ARNO convertor) and wheel count increases towards the Cab-2.
2. The measurements of wheels are to be done using wheel gauges to ROSO drawing No.SKDL-3592 for all BG locomotives except WAP5 locos. For WAPS5 locos RDSO's drawing No. SKOL-4446 and SKDL-4447 may be followed.
3. All measurements are to be taken on a level, un-canted track at the nearest yard.
4. Service limits given in the Maintenance Manual are for good maintenance practice and these are not safety limits. However, the measured values shall be compared with the service limits and degradation in values shall be discussed while finalizing the findings.

Sno.	Description	Observed Value (in mm)	Remarks
------	-------------	------------------------	---------

1	Wheel gauge: For checking wheel gauge three measurements at equal spacing on the inner periphery of the two wheels on the same axle is to be recorded. Check for bent axle, if any.	1		All measurements shall be taken on a level tangent uncanted track. Information is relevant in case of wheel disc shifting/bent axle only.
		2		
		3		For safety, similar limits as applicable for track gauge are relevant for wheel gauge also.
		4		
		5		

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5. Measurement of other relevant items:

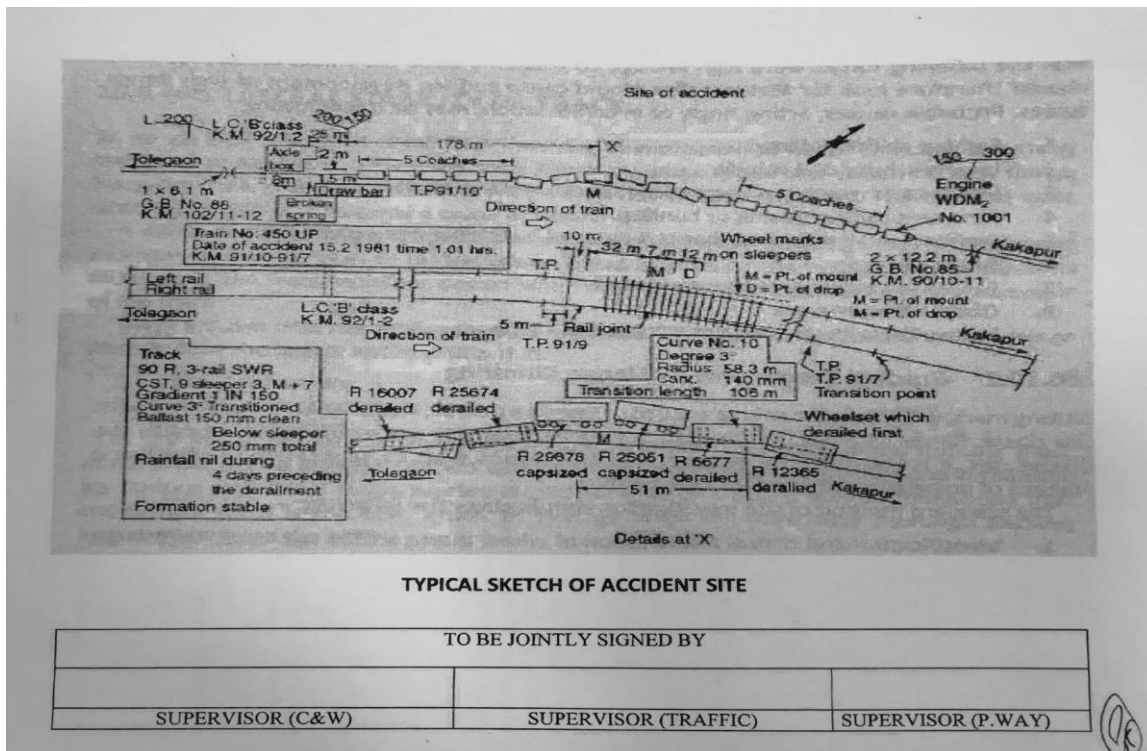
Sno	Description		Observed Value (in mm)	Remarks
1	Buffer / coupler height Measurement of parameters such as buffer length etc may also be done to check possibility of buffer entanglement.			All measurement shall be taken on a level tangent un-canted track. This measurement is required to be taken only in case of trailing stock is with buffers.
2	Lateral clearances	End Axles (1,3,4&6)		
		Middle Axles (2&5)		
3	Lateral clearances	End Axles (1,2,3&4)		Applicable for Bo-Bo locomotives only
4	Longitudinal clearances, between axle box & bogie. Pedestal liner (for all axles)			Except WDP3A, WDG4, WDP4, WDP4B, WAP5, WAP7, WAG9 locomotives
5	Longitudinal clearances between axle box & bogie pedestal liner (for middle axles)			Applicable to WDP3A locomotive only.
6	Height of Rail Guard from rail level			
7	Condition of suspension Springs i.e. normal/broken fresh and old fracture or deformities occurred after derailment due to sudden impact.			

8	Deflected height of coil spring after re-railing on level, uncanted track		
9	Condition of Rubber/ Elastomeric Spring Assembly at the Secondary stage		

Note – Measurement of item (e) to (j) in Para 3 & item 8 & 9 in Para 5 will be done as per site condition.

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Proforma for Wagon

Note: Details regarding all derailed vehicles should be given except: -

1. (i) Where vehicles have derailed due to locomotive derailment
(ii) When the obvious and indisputable cause is sabotage or an obstruction on track
2. Front and rear and left(L) and right (R) are with respect to direction of movement.
3. For an obvious cause of derailment such as a broken axle, spring dropping off the run, and/or some part of under gear hanging loose and causing obstruction only relevant particulars need be filled.
4. Particulars for each derailing vehicle should be given in one sheet. Information against columns(5), (6), (8), (16), (17), (21), (22) should invariably be given for adjacent wagons on the same sheet.
5. Relevant details of adjacent vehicles should also be given if cause of derailment is not apparent.

S.No.	Date of Incident & Time	Train No.	Details of BPC along with the name of station from where it is issued and of Engineer (C&W) who issued	Wagon No.	Type	Mech. Code	Tare in Tonnes	Carrying capacity and axle load	Built Date	Return Date
1	2	3	4	5	6	7	8	9	10	11

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POH Particular		ROH Particulars		Payload in Tonnes		Commodity loaded and remarks regarding uneven loading (give sketch for details of uneven loading)	Station		Position from Engine
Date	Shop	Date	Depot	From Labels	From Actual Weighment		From	To	
12	13	14	15	16	17	18	19	20	21

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Buffer/Coupler Height	Wheel and axle face Particulars (in case of breakage of wheel / axle)		
(i) Measure Buffer/ Coupler height after uncoupling & re-railing on uncanted level track (ii) Record whether there is buffer entanglement (Yes/No)	Axle face particulars	Ultrasonic particulars on the hub of the disc	Stamping particulars on wheel disc regarding Manufacturer/RA/RD
22	23	24	25
End 1L	1L	1L	1L
	1R	1R	1R
End 1R	2L	2L	2L
	2R	2R	2R
End 2L	3L	3L	3L
	3R	3R	3R
End 2R	4L	4L	4L
	4R	4R	4R

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)
Wheel and Axle		

Wheel diameter (i) Measurement (ii) Record whether below condemning size (Yes/No)	Wheel gauge in mm *(taken at three places)	Observation after measuring the profile with tyre defect gauge (Good/ Rejectable)**						
26	27	28						
	1		Thin flange	Sharp flange	Worn out root	Deep flange	Hollow tyre	Flat tyre
		1L						
	2	1R						
		2L						
	3	2R						
		3L						
	4	3R						
		4L						
		4R						

The wheel gauge is to be measured at the horizontal place passing through the center of the axle.

** The wheel profile is to be checked with Tyre defect gauge only (Ref: IRCAPt.III Rule No. 3.2.2(d) and 4.18.1 Plate No.57 to 66)

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Roller Bearing (To be recorded in case of any abnormalities observed in Roller bearing / Axle Box)		
Condition of face cover plate	Condition of locking plates & studs	Condition of Roller Bearing and its components
29	30	31

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Axle Box (for IRS Stock/UIC) (To be recorded only when failure of plain bearing is involved as a cause).				
Brass thickness mm	Condition of box and brass	Condition of sole plate	Condition of journals	Clearance between brass and collar of journal in (mm)
32	33	34	35	36

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Axle Guard (For IRS/UIC Stock)			
Lateral clearance between axle box and axle guard in (mm)	Whether axle guard can work clear of axle box	Are the axle guard bent or otherwise damaged to prevent free movement of axle box	Remark regarding bridle bar
37	38	39	40

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Clearances For casnub Bogie (Corresponding measurements to be taken for IRS/UIC Bogie)			
Type of Bogie	Lateral clearance between side frame & bolster in mm	Lateral clearance between side frame & axle box adopter in mm	Longitudinal clearance between side frame & axle box adopter in mm
41	42	43	44

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SPRING AND SPRING GEAR						
Any Broken/cracked/m issuing/clearance of shackle and shackle pin and general condition (for UIC/IRS)	Thickness of packing plate under spring seat in mm	Remarks whether any spring eye touches sole bar (for laminated spring only)	Condition of suspension springs i.e. Normal, broke/fresh and old fractured or deformities occurred after derailment due to sudden impact	Camber of spring in mm after re- railing on a level uncanted track (for laminated spring only)	Deflected height of coil spring after re- railing on level, uncanted track (for Casnub)	Condition of elastomeric pad above adaptor (for Casnub)
45	46	47	48	49	50	

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Bogie		
Condition of Center Pivot including lubrication and wear (for Casnub)	Condition of Side Bearer including Vertical clearance at side bearers (for stock having clearance type side bearers only)	Condition of friction Snubber Wedge Assembly (for casnub)
52	53	54

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Whether a load is place on more than one wagon	Any other defect in vehicle which may have contributed to or caused the derailment	Details of broken parts giving location w.r.t. Point of mount and drop	List of damages to the wagon due to accident	Other observations*
55	56	57	58	59

Note – Measurement of Item 3,4 & 5 of opening note, item 42,43,44,46,47,49,50,56 & 59 will be done as per site condition.

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Proforma for Carriage

Annexure — 'C'

Proforma to be filled in case of Derailments:

Note: Details regarding all derailed vehicles should be given except: -

- (i) Where vehicles have derailed due to locomotive derailment.
(ii) When the obvious and indisputable cause is sabotage or an obstruction on track or broken axle or wheel.
- Particulars for each derailed vehicle should be given in one sheet. Information against columns(5), (6), (7), (14), (50), & (51) should invariably be given for adjacent coaches on the same sheet.
- Front and Rear and Left(L) and Right (R) are with respect to direction of movement.
- For an obvious cause of derailment such as a broken axle, spring dropping off the run, and/or some part of under gear hanging loose and causing obstruction, only relevant particulars need be filled.
- Relevant details of adjacent vehicles should also be given if cause of derailment is not apparent.

S.No.	Date of Incident & Time	Train No.	Details of BPC along with the name of station from where it is issued and of Engineer (C&W) who issued it	Vehicle No.	Type	Tare in Tones	Carrying capacity in tones	Built Date	Return Date	POH Details
1	2	3	4	5	6	7	8	9	10	11

Station		Position from engine	Wheel gauge in mm (to be measured at three locations) measured in empty condition at the horizontal place passing through the centre of the axle	Wheel diameter (i) Measurements (ii) Record whether below condemning size (Yes/No)		Any indication of bent axle or wheel having shifted on axle	Wheel and axle face particulars (in case of breakage of any wheel / axle)		Stamping particulars on wheel disc regarding Manufacturer/RA/RD (in case of breakage of any wheel / axle)		Observations after measuring the profile with wheel defect gauge (Good/Rejectable)	
From	To						Axle face particulars	Ultrasonic particulars on the hub of the disc			L	R
12	13	14	15	16(i)	16(ii)	17	18	19	20		21	22
							1L	1L	1L			
							1R	1R	1R			
							2L	2L	2L			
							2R	2R	2R			
							3L	3L	3L			
							3R	3R	3R			
							4L	4L	4L			
							4R	4R	4R			

ROLLER BEARING (To be recorded in case of any abnormalities observed in Roller bearing / Axle Box)			
Condition of axle box, rear and front covers / end cap (FIA)	Condition of face cover plate	Condition of bearing seal & studs/locking plate and bolts (FIAT)	Condition of Roller Bearing and its components
23	24	25	26

Spring and Spring Gear								
Condition of Coil suspension spring i.e. Normal/ Fractured (Old / Fresh)	Condition of Rubber spring i.e. Normal / Cracked including length of crack (for LHB only)	Condition of Air Spring including leakage in piping	Deflected height of Coil spring after re-railing on a level uncanted track	Vertical clearances (for ICF)			Condition of Rubber Disc and Bump Stop of Primary Suspension (for LHB)	Height of Bogie Bolster base plate from rail level (for LHB)
				Crown clearance	Bogie frame-Bolster clearance	Body bogie frame clearance		
27	28	29	30	31	32	33	34	35

Condition of Bogie Components			
Condition of Hanger (for ICF)	Condition of Equalizing Stay (for ICF)	Condition of Anchor Link (for ICF)	Condition of Control Arm, Rubber element and Bore (for LHB)
36	37	38	39

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Damping System		
Condition of Axle Guide Cum Dash Pot including Oil level for (ICF)	Condition of Hydraulic Dampers	Condition of Anti Roll Bar (for LBH)
40	41	42

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System of Bogie Rotation and Clearances						
Condition of Center Pivot including criticality of Pivot Pin (for ICF)	Condition of Side Bearer including Oil level and Wear (for ICF)	Condition of Longitudinal / Lateral flexibility of Secondary Spring (for LHB)	Clearance between Traction Centre and Longitudinal / Lateral Bump Stop (for LHB)	Remarks regarding free movement of bolster and pivot and their condition	Condition of grounding cables, Wheels Slip Protection (WSP), and Speed sensor (for LHB)	Condition of Brake Gear Assembly
43	44	45	46	47	48	49

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Buffer/ Coupler height (to be taken on a level uncanted track after uncoupling and re-railing) (in mm)		Condition of Side Buffers Working, dead, drooping, entanglement	Details broken parts giving location w.r.t. Point of mount and derailment and whether breakage considered due to accident	Any other defect in the vehicles which may have contributed to or caused the derailment such as condition of coupler, draft gear pocket, shearing plates etc.	List of damages to the Coach due to accident	Other Observations considered relevant to derailment
Front	Rear					
50	51	52	53	54	55	56

Note – Measurement of Item 5 of opening note, item 24, item 28 to 49, item 54 & item 56 will be done as per site condition.

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Proforma for Track Measurement (PART – A)

Proforma showing the detailed particulars to be collected in the case of Permanent Way during an Accident.

Soil			Type of Formation	Rain Fall	Ballast		
S.No.	Type eg. Sandy, loamy clay, Moorum, Black cotton etc.	Condition firm, Wet, slushy etc			Type / stone, Moorum, Sand, Ash etc.	Depth below sleeper bottom in cms. Stating whether clean or caked	Drainage
1	2	3	4	5	6	7	8

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Width of shoulder in cms out side of rail.				Sleepers				
Left	Right	Left	Right	Type Wooden, CST-9 ,steel trough etc	Condition – New/second hand/damaged/unse rviceable etc	Density	Square or not	Packing loose or sound
9	10	11	12	13	14	15	16	17

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Rails			Rail fastenings		Rail joints		
Weight 52Kg. /90R/75 R etc (Year of Manufacturing)	Condition of wear (attach rail profile if wear is heavy)	GMT Carried	Dog/screw spikes, keys, tie bars, cotters, loose jaws etc		Condition: Hogged battered, low etc.	Staggered of square	Creep-Direction and extent of creep type of creep anchors used with numbers per rail in the affected section
			Number per sleeper seat	Condition: Tight or loose or missing (in each sleeper)			
18	19	20	21	22	23	24	25

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

General remarks about cracks or fracture of fish-plates, fish bolts and other components	Description of anti-sabotage measures like reverse jaws welded rails etc.	Location of points of mount		Location of points of derailment	
		Whether on straight, curve or transition	Whether on a falling grade, level or rising grade and or on sag	Whether on straight, curve or transition	Whether on a falling grade, level or rising grade and or on sag
26	27	28	29	30	31

Note-

- (1) Left and right are with respect to direction of Train movement.
- (2) The data in Col. 2 to 26 need not be collected when the defect is obviously and indisputable on account of sabotage and/or obstruction on track.
- (3) Only broken track material which is not indisputably to be broken after the accident should be included in Col.26 and should be preserved.
- (4) Col.27 need be filled in only when there is a suspicion about sabotage being the cause of derailment.
- (5) Sag extends 90 metres on either side of theoretical junction of the grade lines Col. 29 and 31.

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Proforma for Track measurement (PART-B)

Station No.	Distance apart (metres)	Gauge slack or tight from the Exact in loaded condition (mm)	Cross Level under loaded condition (mm)	Marks on sleepers or rail top	Grinding or rubbing marks on rails
1	2	3	4	5	6

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SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

Examination of alignment for perceptible kinds of track distortion in the vicinity of the point of derailment	Subsidence of track	Versine in mm in loaded condition		Remarks regarding length of transition, degree of curve and specified super elevation general alignment etc.	Longitudinal level to be recorded in the case of M.G, and N.G. In case of sags and curves
		On 20 M. or 10 M. chord depending on practice prevalent on the Railway for flat curves more than 600 M. radius	On 10 M. or such shorter chords as considered necessary for sharp curves (less than 600 M. radius on B.G. And M.G.)		
7	8	9	10	11	12

Note -

- i. The point of mount should be marked station No.0 and the stations numbered serially as (+) for measurements ahead of site of derailment an (-) for measurements in rear.
- ii. The cross level will be measured on the left rail only as determined from the direction of movement.
- iii. Normally measurement will be taken at station 3 M. Apart for a distance of 45 metres on either side of 0 station if the cause of derailment is indisputably known, otherwise they will be taken for a distance of 100 metres in rear and 45 metres ahead of zero station.
- iv. Where necessary measurements for Col. 3, 4 and 5 may in addition be taken at individual sleepers.
- v. This proforma need not be filled when the cause of derailment is obviously established as due to sabotage, obstruction on track, broken axle and/or spring having fallen off prior to point of derailment.
- vi. Longitudinal level should be recorded for 300 metres on rear and 100 metres in front, in case of straights at the middle of each rail and at versine recording points on curves @20/10 M intervals.

TO BE JOINTLY SIGNED BY		
SUPERVISOR (C&W)	SUPERVISOR (TRAFFIC)	SUPERVISOR (P.WAY)

APPENDIX - N
Railway (Notices of and Inquiries into Accidents) Rules, 1998.

Published in the Gazette of India dt. 2nd Jan, 99 and 6th March 99
GSR No: 5 & 64 (PART II, SECTION – 3, SUBSECTION –(I))
MINISTRY OF RAILWAYS (RAILWAY BOARD) NOTIFICATION

New Delhi, The 21st December 1998

G.S.R. 5 & 64 – In exercise of powers conferred by section-122 of the Railways ACT, 1989 (24 of 1989), the Central Government hereby makes the following rules, namely –

1. Short Title and Commencement:

- (1) These rules may be called the Railway (Notices of and Inquiries into Accidents) Rules, 1998.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. Particulars to be given in the notices: The notices mentioned in Section 113 of the Railways Act, 1989 (24 of 1989) (hereinafter referred to as the Act), shall contain the following particulars, namely –

- 1) Kilometrage or station or both at which the accident occurred.
 - 2) Time and date of accident
 - 3) Number and description of the train, or trains.
 - 4) Nature of the accident
 - 5) Number of people killed or injured, as far as known
 - 6) Cause of the accident, as far as known.
 - 7) Probable detention to traffic.
- 3. Responsibility for sending notices, to whom to be sent and mode thereof:**

Whenever any accident, as falls under Section 113 of the Act (hereinafter referred to as 'Reportable train accident') occurs in the course of working a Railway, the Station Master nearest to the place at which the Section of the Railway on which the accident has occurred or any other Station Master In-charge of a Section of Railway to whom the report of the accident is made, shall give notice of the accident by telegraph to the Commissioner of Railway Safety, the District Magistrate and the District Superintendent of Police of the district in which the accident has occurred or such Other Magistrate or Police Officer as may be appointed in this behalf by the State Government concerned and by telegraph, telephone or through special messenger or such other quick means as may be available, to the Superintendent of Railway Police and to the Officer in charge of the police station within the local limits of which the accident has occurred.

Explanation: For the purpose of this rule, "Reportable Train Accident" under Section-113 of the Act, also include those usually attended with loss of human life (such as accident to passenger trains involving collisions, derailments, train wrecking, or attempted train wrecking, cases or running over obstructions placed on the line, of passengers falling out of trains or of fires in trains), or grievous hurt as defined in the Indian Penal Code (hereinafter referred to as the grievous hurt), or serious damage to Railway Property of the value exceeding Rs. 2 Crores which have not actually occurred but which by the nature of the accident might reasonably have been expected to occur, and also cases of landslides or of breach by rain or flood which cause the interruption of any important through line of communication for at least 24 hours.

- 4. Mode of sending notices to the State Government:** The notice of accidents, required under Section -113 of the Act, to be send without delay by the Railway Administration, shall be sent to the State Government –
- a) By Telegram in the case of–
 - i. Accidents deemed under the Explanation to Rule-3, to be serious by reason of loss of human life,
 - ii. Accidents by reason of which the permanent way is likely to be blocked for more than twenty four hours, and
 - iii. Train wrecking or attempted train-wrecking, and
 - b) By letter in all other cases.

5. **Railway Servant to report accidents:** Every Railway servant shall report, with as little delay as possible, every accident occurring in the course of working Railway which may come to his notice and such report shall be made to the nearest Station Master, or, where there is no Station Master, to the Railway Servant in-charge of the section of the Railway on which the accident has occurred.
6. **Station Master or Railway Servant in-charge of the section to report accidents:** The Station Master or the Railway Servant-in-charge of the section shall report all accidents in accordance with the rules laid down by the Railway Administration concerned for the reporting of accidents.

6A Responsibility of ensuring correct reporting of accidents: The responsibility of ensuring correct reporting of accidents shall be of the Regional Railway Manager (RRM) at Regional Level and Chairman and Managing Director at Head quarter Level.

7. Railway Administration to report serious accidents:

- 1) Whenever a serious accident, as defined in Sub-Rule 2 of Rule: 2 of the Statutory Investigation into Railway Accident Rules – 1998 occurs, the Railway Administration concerned shall, as soon after the accident as possible, by telegraph, supply to the Press such particulars as are mentioned in Rule 2 and as are till then available, and by supplementary telegrams, if necessary, immediately after further information is available. A copy shall be sent simultaneously by Express Telegrams, to the Railway Board, the Commissioner of Railway Safety of the circle concerned and the Chief Commissioner of Railway Safety. In addition, the Commissioner of Railway Safety shall be informed, telephonically, of any serious accidents, by the control of the Region in which the accident has occurred.
- 2) For the purpose of sub-rule (1), an accident shall be serious Railway accident, where
 - i. Accident to a train carrying passengers which is attended with loss of life or with a grievous hurt to a passenger or passengers in the train, or with serious damage to Railway property of the value exceeding Rs. 2 Crores. If the damage to the Railway property exceeds Rs. 2 Crores, which may not have actually occurred, but by the nature of the accidents might reasonably have been expected to occur, the accident is required to be reported to the CRS under section 113 and 114 of the Railway Act 1989 and any other accident which in the

opinion of the Chief Commissioner of Railway Safety or Commissioner of Railway Safety requires the holding of an inquiry by the Commissioner of Railway Safety shall also be deemed to be a Serious accident. A workmen's train or a ballast train or a material or an Accident Relief Train or a Tower Wagon or such other trains carrying workmen, or cattle special/military special authorized escorts or similar such train shall be treated as a passenger train.

- ii. An accident involving a train carrying passengers leads to loss of life or grievous injury to any Railway servant irrespective of whether he was travelling in that Passenger train or not, it shall come under the purview of inquiry by the Commissioner of Railway Safety and shall be treated as 'Serious Railway Accident'.

Provided that –

- a) Cases of trespassers run over and injured or killed through their own carelessness or of passengers injured or killed through their own carelessness, and
 - b) Cases involving persons being Railway Servants or holding valid passes/tickets or otherwise who are killed or grievously injured while travelling outside the rolling stock of a passenger train such as on foot board or roof or buffer but excluding the inside the vestibules between coaches, or run over at a Level Crossing or elsewhere on the Railway track by a passenger train, and
 - c) Collision between a Road Vehicle and a passenger train at a Level Crossing where no passenger or Railway Servant is killed or grievously hurt shall not be treated as a "Serious Railway Accident" even if those travelling in the road vehicle are killed or grievously hurt shall not be treated as serious Railway Accident, unless the Chief Commissioner of Railway Safety or Commissioner of Railway Safety is of the opinion that the accident requires the holding of an inquiry by the Commissioner of Railway Safety.
8. **Facility for reaching the site of the accident :** Whenever any accident has occurred in the course of working a Railway, the Head of the Railway Administration concerned shall give all reasonable aid to the District Magistrate or the Magistrate appointed or deputed under Rule – 17 or to the Commission of inquiry appointed under the Commissions of inquiry Act-1952 (60 of 1952), or any other authority to whom all or any of the provisions of the said Act have been made applicable, and to the Commissioner of Railway Safety, medical

officers, police and other concerned to enable them to reach the scene of the accident promptly, and shall also assist those authorities in making inquiries and in obtaining evidence as to the cause of the accident.

- 9. Medical aid to the persons grievously hurt in accidents :** Whenever any accident, occurring in the course of working a Railway, has been attended with grievous hurt, it shall be the duty of the head of the Railway Administration concerned to afford medical aid to the sufferers, and to see that they are properly and carefully attended to till they are removed to their homes or handed – over to the care of their relatives or friends. In any such case, or in any case in which any loss of human life or grievous hurt has occurred, the nearest available local medical officer shall be sent for if such medical officer is nearer at hand than the Railway medical officer.
- 10. Arranging attendance of Railway servants at the places of judicial inquiries or inquiries conducted by Commissioner of Railway Safety or Magistrate :** When an inquiry under Rule – 2 Statutory Investigation into Railway Accidents Rules – 1968 or under Rule – 17 these, or a judicial inquiry is being made the Head of the Railway Administration concerned shall arrange for the attendance, as long as may be necessary, at the place of inquiry, of all Railway servants whose evidence is likely to be required at such inquiry; and if the inquiry is to be held by the Commissioner of Railway Safety under Rule – 2 the Statutory Investigation into Railway Accidents Rules-1968. The Head of the Railway Administration concerned shall –
- a) Cause notice of the date, hour and place at which inquiry will be held to be given to the officers mentioned in clauses (a) and (c) of sub – rule (1) of rule – 14, and
 - b) Arrange for the attendance of the regional officers, Railway servants required as witness at the inquiry.
- 11. Action to be taken by Head of the Railway Administration on receipt of the report of Commissioner of Railway Safety:** Whenever the Head of the Railway Administration concerned received a copy of the report of the Commissioner of Railway Safety under Rule – 4 of the Statutory Investigation into Railway Accidents Rules -1998, he shall at once acknowledge its receipt, and –

- a) Submit his remarks, on the view expressed in the Report, to the Chief Commissioner of Railway Safety with copy to the Commissioner of Railway Safety immediately on receipt of the Report by the Railway he shall in his acknowledgement of the report indicates his intention to submit his remark later as early as possible.
- b) If the Head of the Railway Administration concerned agrees with the views expressed in the Report and considers the prosecution of any persons desirable, he shall immediately forward a statement of such persons to the District Magistrate of the district in which the accident occurred, or to the such other officers as the State Government may appoint in this behalf and to the concerned police authorities;
- c) In case the District Magistrate or Police authorities require copies of the Report, it may be sent to them and the confidentiality of the Report should be made clear to the District/ Police Authorities, and the Police Authorities shall, as soon as possible, intimate the Head of the Railway Administration concerned about their decision regarding launching any prosecution.

12. Head of the Railway Administration to offer remarks on the suggestions made in the report of Commissioner of Railway Safety: Whenever the report of the Commissioner of Railway Safety points to the necessity for or suggests a change in any of the rules or in the system of working of the Railway, the Head of the Railway Administration concerned shall, intimate the action which has been taken, or which it proposes to take, to the chief Commissioner of Railway Safety with copy to the Commissioner of Railway Safety.

13. Joint Inquiry – When dispensed with :

1. Whenever a reportable train accident, such is described in section 113 of the Act has occurred in the course of working a Railway, the Head of the Railway Administration concerned shall cause an inquiry to be promptly made by a Committee of Railway officers (to be called a “Joint Inquiry”) for a thorough in the cause which led to the accident .

Provided that such an inquiry may be dispensed with –

- a) If any inquiry is to be held by the Commissioner of Railway Safety under Rule – 2 of the Statutory Investigation into Railway Accidents Rules – 1998, or a Commission appointed under the Commissions of Inquiry Act – 1952 (60 of 1962), or any other authority appointed by

the Central Government to which all or any of the provisions of the said commission of Inquiry Act have been made applicable under Rule-2 of the said Statutory Investigation into Railway Accidents Rules, or

- b) If there is no reasonable doubt as to the cause of the accident; or
- c) If the any department of the Railway Administration concerned intimates that it accepts all responsibility in the matter

2 Where such inquiry is dispensed with under clause –(b)or Clause (c) of the provision to Sub – Rule – (1), it shall be the duty of the Head of the Department of the Railway Administration responsible for the accident to make such inquiry (to be called a “department inquiry”) as he may consider necessary and, if his staff or the system or working is at fault, to adopt or suggest such measures as he may consider necessary for preventing a recurrence of similar accidents.

14. Notice of joint Inquiry :

- 1) Whenever a joint inquiry is to be made, the Head of the Railway Administration concerned shall cause notice of the date and hour at which the inquiry will commence, to given to be the following officers, namely:
 - a) The District Magistrate of the district in which the accident occurred or such other officer as the State Government may appoint in this behalf, the Superintendent of Police;
 - b) The Commissioner of Railway Safety for the section of the Railway on which the accident occurred; and
 - c) The Head of the Railway Police having jurisdiction at the place where the accident occurred; or, if there are no Railway Police., the Officer – in charge of the police station having jurisdiction at such place.
- 2) The date and hour at which the inquiry will commence shall be fixed so as to give the officers mentioned in sub – rule (1) sufficient time to reach the place where the inquiry is be held.
- 3) When a joint Inquiry is held into an accident after receipt of information about the inability of the Commissioner of Railway Safety to hold an inquiry, under Sub-Rule (5) of Rule-2 of the Statutory Investigation in Railway Accidents Rules – 1998, the Head of the Railway Administration concerned shall issue a press note in this

behalf inviting the public to tender evidence at the inquiry or send information relating to the accident to the Joint Inquiry Committee at an address specified in the Press Note.

15. Report of joint inquiry or departmental inquiry to be sent to the Head of the Railway Administration and action and to be taken thereon:

- 1) As soon as any joint inquiry or departmental inquiry has been completed, the President of the Committee of Railway Officers or the Head of the department, as the case may be, shall send to the

Head of the Railway Administration concerned a report containing inter alia :

- a) Brief description of the accident;
 - b) Description of the locality of the accident;
 - c) Detailed statement of the evidence taken;
 - d) The conclusions arrived at together with a note of dissent; if any;
 - e) Reasons for conclusions arrived at;
 - f) The nature and extent of the damage done;
 - g) When necessary, a sketch illustrative of the accident;
 - h) The number of Railway servants killed or injured;
 - i) The number of passengers killed or injured;
 - j) An Appendix containing extracts of the rules violated by the staff responsible for the accidents.
- 2) The Head of the Railway Administration concerned shall forward, with his remark as to the action that is intended to be taken in regard to the staff responsible for the accident or for the revision of the rules or the system of working, a copy of the report referred to in sub-rule(1)
 - a) To the Commissioner of Railway Safety for the section of the Railway on which the accident occurred;
 - b) If no inquiry or investigation has been made under Rule – 7 or if a joint or departmental inquiry has been held first, to the District Magistrate or the officer appointed under clause (a) of sub – rule (1) of rule – 14; and
 - c) If any judicial inquiry is being made, to the magistrate making such inquiry.
 - 3) The copy of the report aforesaid shall be accompanied :-

- a) In the case referred to in clause (b) of Sub – Rule (2), by a statement of the persons involved in the accident whose prosecution the Head of the Railway Administration concerned considers to be desirable;
- b) In the case referred to in clause (c) of Sub – Rule (2) by a copy of the evidence taken at the inquiry.

16. Report of Inquiries into accidents not covered by Section – 113 to be forwarded to Commissioner of Railway Safety :

- 1) Whenever any accident, not of the nature specified in Section -113 of the Act, such as averted collisions, breaches of block rules or other technical accidents, occurs in the course of working a Railway, the Railway Administration concerned may cause an inquiry, either a joint inquiry or a departmental inquiry, to be held into the accident.
- 2) Where an inquiry is held as provided under Sub-rule (1), the head of the Railway Administration concerned shall forward a copy of the report of the inquiry to the Commissioner of Railway Safety for the section of the Railway on which the accident occurred.

17. Magisterial Inquiry :- Whenever an accident, such as is described in Section-113 of the Act, has occurred in the course of working a Railway, the District Magistrate or any other Magistrate or any other Magistrate who may be appointed in this behalf by the State Government, may either –

- a) Himself make an inquiry into the cause which led to the accident; or
- b) Depute a sub – ordinate Magistrate, who is possible, should be a Magistrate of the firstclass, to make such an inquiry; or
- c) Direct investigation into the cause which led to the accident, to be made by the police.

Provided that where, having regard to the nature of the accident, the Central Government has appointed a Commission of Inquiry to inquire into it under the Commission of Inquiry Act, 1952 (60 of 1952), or has appointed any other authority to inquire into it and for that purpose has made all or any of the provisions of the said Act applicable to that authority, a Magistrate or a police officer shall not make his inquiry or investigation under this rule and, where he has already commenced the inquiry and investigation, shall not proceed further with it., and such Magistrate and police officer shall handover the evidence, records or other documents in his possession relating to the inquiry or investigation to such authority as may be specified by the Central Government in this behalf.

- 18. Notice Of Magisterial Inquiry :** Whenever it is decided to make an inquiry under Clause (a) or Clause (b) of Rule – 17, the District Magistrate or other Magistrate appointed as aforesaid or the Magistrate deputed under Clause (b) of Rule – 17 as the case may be shall at once inform the Head of the Railway Administration concerned and the Regional Railway Manager by telegraph of the date and hour at which the inquiry will commence so as to enable the Railway Administration to summon the requisite expert evidence and thereafter, he shall proceed to the scene of the accident and conduct the inquiry.
- 19. Judicial Inquiry:** A Magistrate, making an inquiry under Rule -17, may summon any Railway Servant and any other persons whose presence he may think necessary, and after taking the evidence and completing the inquiry shall, if he considers that there are sufficient grounds for holding a judicial inquiry, take the steps for bringing to trial any person whom he may consider to be criminally liable for the accident.
- 20. The result of Magisterial inquiry to be communicated to the Head of the Railway Administration :** The result of every inquiry or investigation made under Rule – 17 shall be communicated by the Magistrate who has held such inquiry or investigation to the Head of Railway Administration concerned and to the Commissioner of Railway Safety.
- 21. Procedure for summoning Railway servant to assist the Magistrate holding judicial inquiry:**
1. If in the course of any judicial inquiry into an accident occurring in the course of working of Railway, the Magistrate holding such inquiry desires the assistance of the Commissioner of Railway Safety, Head of the Railway Administration concerned, he shall issue a requisition to Chief Commissioner of Railway Safety or the Railway Board, for the presence of the Commissioner of Railway Safety or the Head of the Railway Administration, stating at the same time the nature of the assistance of any Railway Officer is required the Magistrate shall issue a requisition to the Head of the Railway Administration for his attendance in the Court.

2. The Requisition referred to in Sub- section (1) shall state the nature of the assistance required. In summoning Railway Officials, the Magistrate shall take care not to summon on the same day so large a number of the employees, especially of one class, as to cause inconvenience to the working of the Railway. In the case of serious accidents, the Magistrate may obtain report from the Commissioner of Railway Safety and the Head of the Railway Administration concerned regard to the accident, before finally concluding the judicial inquiry.

22. Communication of the decision of judicial Inquiry to the Railway Administration, Commissioner of Railway Safety and the State Government: On the conclusion of the judicial inquiry, the Magistrate shall send a copy of his decision to the Head of the Railway Administration concerned and to the Commissioner of Railway Safety, and shall, unless in any case he thinks it unnecessary to do so, report the result of inquiry to the State Government.

23. Police Investigation : When to be dispensed with report on loss of life, grievous hurt, or damage to Railway Property :

1. The Railway Police may make an investigation in to the causes which led to any accident occurring in the course of working a Railway and shall do so whenever :
 - a) Any such accident is attended with loss of human life or with grievous hurt, or with serious damage to Railway property of the value exceeding Rs. Two Crore /- or has prima facie been due to any criminal act or omission, or
 - b) The District Magistrate or the Magistrate appointed under Rule 17 has given a direction under Clause (c) of that Rule :

Provided that where, having regard to the nature of the accident, the Central Government has appointed a Commission of inquiry to inquire into it under the Commission of Inquiry Act -1952 (60 of 1952) or has appointed any other authority to inquire into it and that purpose has made all or any of the provisions of the said Act applicable to that authority or where Magisterial inquiry is being held under Rule Clause (a) or Clause (b) of Rule 17, the Railway Police shall not make any investigation under this rule, and, where they have already commenced their investigation, shall not proceed further with it; and shall hand-over the records or other documents in their possession relating to the investigation to such authority as may be specified by Central Government in this behalf.

2. The Railway Police shall report, with as little delay as possible to the nearest Station Master or where there is no Station Master to the Railway Servant In- charge of the section of the Railway, on which the accident has occurred every accident which may come to their notice occurring in the course of working Railway attended with loss of human life or with grievous hurt or with serious damaged to the Railway property of the value exceeding Two Crore Rupees or which has prima facie been due to any criminal act or omission.

24. Status of Police Officer Investigating the accident :-

1. Whenever an investigation is to be made by the Railway Police :
 - a) In a case in which an accident is attended with loss of human life or grievous hurt, or with serious damage to Railway Property of the value exceeding Two Crore Rupees or
 - b) In pursuance of a direction given under Clause (C) of Rule 17, the investigation shall be conducted by the Head of Railway Police of the area in which the accident has occurred, or if that officer is unable to conduct the investigation himself, by an officer to be deputed by him
- 2 The Officer deputed under sub-rule (1) shall ordinarily be the senior officer available, and shall whenever possible be a Gazetted Officer, and shall in no case be of rank a lower than that of an Inspector.

Provided that the investigation may be carried out by an officer- in-charge of a Police Station.

- i. In a case such as is referred to in Clause 9 (a) of sub-rule (1), if no loss of life or grievous hurt has been cause to more persons that one or no damaged to railway property of value exceeding Two Crore Rupees has been cause or there is no reason to suspect that any servant of the railway has been guilty or neglect of any rule relating to the working of the railway; or
- ii. In the case referred to in Clause (b) of sub-rule (1) if the District Magistrate so directs.

25. Notice of Police Investigation : The officer who is to conduct an investigation in pursuance of rule 24 shall at once informed the Head

of the Railway Administration concerned and the Regional Railway Manager by telegraph of the date and hour at which investigation will commence so that if possible, the presence of a Railway Official may be arranged for to watch the proceeding and to aid the officer making the investigation, and there after, he shall proceed without delay to the scene of the accident and conduct the investigation there; so, however, that the absence of a railway official shall not be allowed to delay the investigation which shall be conducted as soon as possible after the accident has taken place.

26. Assistance by the District Police :

- 1) In every case to which rule 24 applies, immediate information shall be given by the Railway Police of the area to the District Police, who, if so required, shall afford all necessary assistance and shall if occasion arises, carry investigation beyond the limits of the railway premises. But the Railway Police of the area shall primarily be responsible for carrying on the investigation within such limits.
- 2) Subject to the provisions of these rules, the further prosecution of the case on the conclusion of the police Investigation, shall rest with the Railway Police.

27. Communication of the result of Police Investigation : The result of every police investigation shall be reported at once to the District Magistrate or other of rule 26 and rule 27 on the Railway Police of the area on the Head of such Railway Police, shall be discharged by the District Police or by the District Superintendent of Police, as the case maybe.

28. Repeal and Saving :

- 1) The Railway (Notices of and inquires into Accidents) Rules, 1973, are hereby repealed.
- 2) Notwithstanding such repeal, anything done or any action taken under the rules here by repealed shall be deemed to have been done or taken under the corresponding provisions, of these rules.

APPENDIX –O
Statutory Investigation into Railway Accidents Rules, 1998.

Published in the Gazette of India Date 26th Dec. 1998 & 6th March 1999
GSR no.257&63

[PART II, SECTION E, SUBSECTION (i)] MINISTRY OF CIVIL AVIATION

NOTIFICATION

New Delhi 17th Dec. 1998.

G.S.R. 257 & 63 – In exercise of the powers conferred by section 122 of the Railway Act, 1989 (24 of 1989), the central Government hereby makes the following rules, namely :

1. (1) These rules may be called the Statutory Investigation into Railway Accidents Rules, 1998.
- (2) They shall come into force on the date of their publication in the official Gazette.

2. Inquiry into a serious accident by the Commissioner of Railway Safety –

(1) (a) Where the commissioner of Railway Safety receives notice under section 113 of the Railway Act, 1989 (24 of 1989) hereinafter referred to the Act, of the occurrence of an accident which he considers of a sufficiently serious nature to justify such a course, he shall, as soon as may be, notify the Chief Commissioner of Railway Safety, the Railway Board and the Head of the Railway Administration concerned of his intention to hold an inquiry and shall, at the same time, fix and communicate the date, time and place for the inquiry. He shall also issue or cause to be issued a press note in the inquiry behalf inviting the public to tender evidence at the inquiry and send information relating to the accident to his office address.

(b) While notifying his intention to hold an inquiry as aforesaid, the Commissioner of Railway Safety shall also inform or cause to inform the Chief Secretary of the state, the District Magistrate and the Superintendent of the police of the district concerned.

(2) For the purpose of this rule, every accident to a train carrying passengers which is attended with loss of life of a passenger or passengers in the train or with grievous hurt, as defined in the Indian Penal Code (hereinafter referred to as the grievously hurt to a passenger or passengers in the train or with serious damage to Railway property of a value exceeding Two Crore rupees and any other accident which in the

opinion of the Chief Commissioner of Railway Safety or the commissioner of Railway Safety requires the holding of an inquiry shall be deemed to be an accident of such a serious nature as to require the holding of an inquiry.

These accidents shall termed as “Serious train accidents”.

(3) However, for any accident, the Chief Commissioner may either hold the inquiry himself or direct any Commissioner of Railway Safety to do so.

Explanation : The inquiry under rule shall be obligatory only in those cases where the passengers, killed or grievously hurt were travelling in the train carrying passengers. If an accident involving a train carrying passengers leads to loss of life or grievous injury to any Railway Servant (s) irrespective of whether he was travelling in that passenger train or not inquiry under this rule shall be obligatory. However, if a person being a Railway servant or holding valid pass or ticket or otherwise travelling outside the rolling Stock of a Passenger train (such as foot – board or roof or buffers but excluding the inside of vestibules between coaches) is killed or grievously hurt, or is run over at a level crossing or elsewhere on the Railway track, an inquiry under this rule shall not be obligatory. Similarly, if in a collision between a road vehicle and a passenger train at a level crossing, no passenger in the train is killed or grievously hurt, it shall not be obligatory, to hold an inquiry. For the purpose of this rule, Workmen’s trains or Ballast trains or material trains or Accident Relief Trains or Tower wagons or such other trains carrying Workmen or Cattle specials/military special carrying authorized escorts or similar such trains shall also be treated as Passenger trains and in the event of a workmen or escort being killed or grievously hurt as a result of an accident to the train, an inquiry under this rule shall be obligatory.

(4) When an accident requiring the holding of an inquiry occurs at a station where the jurisdiction of two or more Commissioners of Railway Safety meet, the duty of the complying with this rule shall devolve on the Commissioner of Railway Safety within whose jurisdiction the Railway working such station lies. At other such locations where the issues cannot be resolved then it shall be finalized by the Chief Commissioner of Railway Safety.

(5) (a) If, for any reason, the concerned Commissioner of Railway Safety is unable to hold an inquiry at an early date after the occurrence of such an accident, he shall intimate by the fastest means of communication without any delay to the Chief Commissioner of Railway Safety of the reasons why the inquiry cannot be held by him. The Chief Commissioner may choose to conduct the inquiry himself or direct any other Commissioner to take up the inquiry or decide to let the inquiry be conducted by the Railway Administration. The concerned Commissioner shall thereafter notify the Railway Administration and the Railway Board accordingly.

(b) On receipt of the proceeding of the joint inquiry (inquiry made by a Committee of Railway Officers) from the head of the Railway Administration in accordance with Rule– 15 of the Railway (Notices of an Inquiries into Accidents) Rule – 1998, the Commissioner of Railway Safety shall scrutinize the same, and in case he agrees with the findings of the joint inquiry, shall forward a copy of the report to the Chief Commissioner of Railway Safety along with his views on the findings and recommendations made, In case the Commissioner feels, he may direct the Railway Administration either to conduct inquiry de-novo or re-examine specific issues and submit revised findings. On the other hand, the Commissioner of Railway Safety, after examination of the joint inquiry proceeding, considers that an inquiry should be held by himself, he shall, as soon as possible, notify the Chief Commissioner of Railway Safety, the Railway Board, and the Head of the Railway Administration concerned, or his intention to hold an inquiry and he shall at the same time fix, and communicate the date, time and places for the inquiry.

(6) (a) Where having regards to the nature of the accident, the Central Government has appointed a commission of inquiry to inquire in to the accident under the commission of inquiry Act, 1952 (60 of 1952), or has appointed any other authority to inquire into it for the purpose has made all or any of the provision of the said Act applicable to that authority, the Commissioner of Railway Safety to whom notice of the accident has been given proceed further with it and shall handover the evidence, records to other documents in his possession, relating to the inquiry to such authority as may be specified by the Central Government in his behalf.

(b) If, as a result of the Police Investigation regular case in lodged in Criminal Court by the Police or arising out of the accident, a case is lodged in Civil Court by interested person (s), the Commissioner shall finalize his report circulate the same as per Rule – 4, as a strictly confidential document.

3. Commissioner of Railway Safety to submit a brief preliminary narrative report:

(1) Whenever the Commissioner of Railway of Safety has made an inquiry under Rule -2 he shall submit a confidential report in writing to the Chief Commissioner of Railway Safety and Shall forward copies of the report to-

- i. The Railway Board;
- ii. The Railway Administration of all the Zonal Railways;
- iii. In the case of Railways under the control of a State Government or Local Administration to such a Government or Administration if the accident has occurred in that railway;
- iv. Other Commissioner of Railway Safety;
- v. The Director, Intelligence Bureau, Ministry of Home affairs, Government of India, if the Commissioner of Railway Safety find that the accident was caused by sabotage or train wrecking.

(2) Incase inquiry has been held by the Chief Commissioner of Railway Safety he shall forward his report to the authority mentioned (i) to (v) or sub Rule (1) of this Rule

4. Publication report : Recommendations in regard to the publication of report shall be made by the Chief Commissioner of Railway Safety and Railway Board (Ministry of Railways) informed accordingly. In case the Railway Board has reservations on the recommendations of the Chief Commissioner the matter shall be finally decided by the Central Government (Ministry of Civil Aviation).

5. District Magistrate or his representative to attend the inquiry conducted by Commissioner of Railway Safety:

Where no Magisterial inquiry is being made under Clause (a) of (b) or rule 17 of the Railway (Notices of an inquiries into Accidents) Rule, 1998 the District Magistrate shall, as far as possible attend the inquiry conducted by the Commissioner of Railway Safety Personally or depute some other officer to represent him the inquiry.

6. District Superintendent of police or his representative – The District Superintendent of Police shall, as far possible also attend the inquiry conducted by the Commissioner of Railway safety personality or depute some other officer to represent him at inquiry

7. Commissioner of Railway Safety to Assist Magistrate of the Commissioner of Inquiry etc. in clarifying technical matters : The

Commissioner of Railway Safety, as per as possible, assist any Magistrate making judicial inquiry or an inquiry under Rule 17 of Railway (Notices of an Inquiries into Accident) Rules 1998 or a Commission of Inquiry appointed under the Commission of Inquiry Act 1952 (60 to 1952). Or any other Authority appointed by the Central Government to which all or any provisions of the said Act have Central Government to which all any of the provisions of the said Act have been made applicable, whenever he may be called upon to do so for the purpose of clarification of any technical matters.

8. **Power of the Commissioner of Railway Safety:** Nothing in these rules shall, except to the extent provided in Sub – Rule (6) of Rule 2, be deemed to limit or otherwise affect the exercise of any of the powers, conferred on Commissioner of Railway Safety by section 7 and 8 Act, 1989.

9. **Repeal and Saving :**

- 1) The ‘Statutory Investigation into Railway Accident Rules 1973’, published with notification of Government of India in the Ministry of Tourism & Civil Aviation No. 22 dated 2.6.73, part II, section 3 are hereby repealed.
- 2) Notwithstanding such repeal, anything done or any action taken under the rules hereby repealed shall be to have been done or taken under corresponding provisions of these rules.

Sd/-
(Prakash Chandra)
Under Secretary to Govt. of India

APPENDIX – P

Punishment norms in accident cases

(Ref. Railway Board's letter no. 99/safety (A & R) 6/1 dated 23.04.99)

NOTE:

i. **'D' staff** : Staff directly held responsible for the accident.

'S' staff : Staff who are found to have secondary responsibility. In their case, the penalty imposed will depend on the degree of their contribution to the accident / engine failure and the Disciplinary Authority will use its discretion in the matter.

WIP- With holding of increment with cumulative effect.

WIT- With holding of increment without cumulative effect.

- ii. The Disciplinary Authority must impose the minimum penalty if the responsibility of staff is clear. Factors, like the employee's past record of service may be taken into account by the Appellate Authority if and when an appeal is made to it. The Disciplinary Authority should deal with the case solely with regard to the facts and circumstances of the accident itself.

Appendix P (Punishment norms in accident cases), Page no. 202 Item No 3 - amendment

Nature of Accident		Minimum penalty
1. Collisions involving a train		
a)	Resulting in loss of human life.	'D' Staff –Dismissal 'S' Staff – Major penalties (v), (vi) or (vii)
b)	Not resulting in loss of human life	'D' Staff – Removal from service

			'S' Staff - Major penalty (v) or (vi)
2. Averted collisions involving a train -			'D' Staff - Removal from service. 'S' Staff - Major penalty(v) or (vi)
3. Train passing signal at danger (SPAD) :			(CS No.6 dt 18/09/18)
1.1 Punishment in SPAD (In case of 1st instance)			
SN	SPAD at	Condition	Punishment recommended
1.1	During reception of Train:SPAD has occurred on any reception signal including Starter signal when train is being received.	1.1.1 Distance traveled beyond the Stop Signal is upto Signal Overlap/ Block Overlap or less	<p>(I) For Loco Pilots:</p> <p>Reduction to a lower post/grade of Loco Pilot Shunter for a period of 02 years where the period of reduction shall operate to postpone future increments of pay, where SPAD is entirely due to neglect of Loco Pilot.</p> <p>Reduction to a lower grade/post of Loco Pilot Shunter for a period of 02 years, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p>(ii) For Assistant Loco Pilots:</p> <p>Reduction to the lowest grade/post for a minimum period of three years, where the period of reduction shall operate to postpone future increments of pay.</p>

			(v) Competency Certificate should be re-issued after checking their Knowledge by Competent Authority.
		1.1.2 Distance traveled beyond the Stop Signal is more than the Signal Overlap/Block Overlap	<p>Removal from service or Compulsory retirement where entirely due to Neglect of loco pilot;</p> <p>Reduction to a lower grade for a period of 02 years, where the period of reduction shall operate to postpone future increments of pay, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p>At the appeal stage, contributory factors and past records of Loco Pilot may be taken into account and punishment reviewed.</p> <p>In exceptional cases, running duty may also be restored to such loco pilots after re-training and fresh psycho-test.</p>
1.2	During Dispatch of the train – SPAD at Starter Signal, Advanced Starter Signal, IBS Signal and Automatic Signal	SPAD	<p>Removal from service or Compulsory retirement where entirely due to neglect of Loco Pilot;</p> <p>Reduction to a lower grade for a period of 02 years, where the period of reduction shall operate to postpone future increments of pay, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p>At the appeal stage, contributory factors and past records of Loco Pilot may be taken into account and punishment reviewed.</p>

			In exceptional cases, running duty may also be restored to such loco pilots after re-training and fresh psycho-test.
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1.3	Gate Signal at manned Level Crossing	SPAD	<p><u>1.3.1 For loco Pilots:</u> Reduction to a lower Post/grade of Loco Pilot Shunter for a period of 02 years where the period of reduction shall operate to postpone future increments of pay, where SPAD is entirely due to neglect of Loco Pilot.</p> <p>Reduction to a lower post/grade of Loco Pilot Shunter for a period of 02 years, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p><u>1.3.2. For Assistant Loco Pilots:</u> Reduction to the lowest scale for a period of two years, where the period of reduction shall operate to postpone future increments of pay.</p> <p>Reduction to the lowest scale for a period of two years, if there are contributory factors like loss of brake power on the run, which he could not have detected when he took charge of the locomotive.</p> <p>1.3.2. Safety/monitoring category of involved crew should be kept as 'C' for 02 years after fit for main line duty.</p> <p><u>1.3.4 Loco Pilots involved in SPAD case will be immediately de-rostered and sent for refresher course.</u></p> <p><u>1.3.5 Competency Certificate should be re-issued after checking their knowledge by competent Authority.</u></p>
1.4	Shunt Signal	Failure of LP/ALP in observing the shunt Signal	Withholding of increments for two years, however, Disciplinary Authority must record reasons for not imposing one of the major penalties

1.5	SPAD in AWS/ATP territory	SPAD	<p>Removal from service or compulsory retirement where entirely due to neglect of loco pilot;</p> <p>Reduction to a lower grade/post for a period of 02 years, where the period of reduction shall operate to postpone future increments of pay, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p>At the appeal stage, contributory factors and past records of Loco Pilot may be taken into account and punishment reviewed.</p> <p>In exceptional cases, running duty may also be restored to such loco pilots after re-training and fresh psycho-test.</p>
2	<p>In 1st instance of SPAD, for all cases other than item no. 1.1.1 and 1.3 in above table, punishment norms for ALP, will be as follows :</p> <p>Any one of the major penalties will be awarded to ALP other than compulsory retirement / removal / dismissal from service, as decided by the competent authority.</p>		
3	<p>Punishment in SPAD (in 2nd instance) :</p> <p>2nd instance of SPAD needs to be viewed seriously and thus needs to be penalized as per the following norms :</p> <p>Removal from service or Compulsory retirement where entirely due to neglect of Loco Pilot ;</p> <p>Reduction to a lower grade/post for a period of 02 years, where the period of reduction shall operate to postpone future increments of pay, if there are contributory factors like loss of brake power on the run which he could not have detected when he took charge of the locomotive.</p> <p>At the appeal stage, contributory factors and past records of Loco Pilot may be taken into account and punishment reviewed. In exceptional cases, running duty may also be restored to such Loco Pilots after re-training and fresh psycho-test.</p>		
4	<p>On 2nd instance of SPAD, at Appeal or revision stage, in no case should Loco Pilot be put back on foot-plate duties if found solely responsible for the SPAD in 1st and 2nd instances. He/she should be reinstated ordinarily to lower or</p>		

	equivalent to initial Loco Pilot / Shunter Grade and accordingly redeployed in non-running duty.		
5	For Assistant Loco Pilot, in the 2nd instance of SPAD, he/she may be down graded to initial stage of recruitment.		
6	The performance of Loco Inspectors also needs to be monitored and they may be apportioned responsibility if repeated incidents of SPAD are noticed amongst LP/ALP in their jurisdiction.		
7	The above norms shall come into force with effect from 08.01.2018 and SPAD cases which occurred before 08.01.2018 shall be decided based on the prior instructions.		
Nature of Accident		Minimum penalty	
4. Over speeding by Loco pilot (in cases other than collisions, averted collisions and passing signal at danger for which penalties have been prescribed in items 1 to 3 above):-			
i) Resulting in derailment of passenger train involving loss of human life.		Dismissal, if there are no other contributory factors like track or rolling stock defects, removal, if there are such contributory factors.	
ii) Resulting in derailment of passenger train not involving loss of human life.		Removal, if there are no other contributory factors like track or rolling stock defects; reduction to 'C' grade for 3 years if working substantively in 'C' or 'B' grades and reduction to shunter for 3 years if working substantively in 'C' grade with loss of seniority in both cases. If there are such contributory factors.	
iii) Resulting in derailment of goods trains on the mainline in mid-section or within station limits.		Reduction to grade of shunter for one to three years with loss of seniority.	
iv) Resulting in derailment of goods train in station yard on other than main line.		Reduction to shunter for one to three years. Depending on the extent of damage. Without loss of seniority on being restored to 'C' grade Loco pilot.	
5. Failure to detect hot axle or other defective wagon resulting in derailment for which Loco pilot/guard can be held responsible if it is within range of visibility.		Reduction to next lower grade in the case of passenger train, WIP for 3 years with loss of seniority in the case of goods train.	
6. Failure to detect hot axle or other than		Removal in the case of passenger	

Defective wagon resulting in derailment for train, reduction to the next lower grade in the case of goods train, if responsible or failure to stop the train on working in lowest grade, WIP for 3 years. information regarding hot axle being given by the previous station for control.	
7. Station derailment while shunting	
i) Due to Loco pilot's fault in not obeying signals including hand signals or starting the train without authority to proceed.	WIT for 2 years.
ii) Due to Loco pilot's failure to control the train	WIT for 2 years.
8. Breach of Block Rules (which do not result in collision or averted collision) such as train entering the section without proper line clear, receiving trains on wrong line blocked for engineering work etc. Placing material trolley on line without block protection and so on.	Reduction to a lower stage in the time scale.
9. Accidents at Manned Level crossings	
1) Failure of Gateman to close the gate.	Dismissal if there is loss of human life, removal if there is no loss of human life.
2) Failure of SM/ASM to ensure closure of level crossing gates before allowing any movement where rules provide.	Reduction to a lower grade or post with loss of seniority. (WIP 3 yrs. In case in the lowest grade)
3) Failure of Loco pilot in observing rules before passing a gate signal in danger.	Reduction to a lower grade with a loss of seniority.
4) Where no breach of rules is proved but lack or vigilance on the part of Loco pilot / guard or other staff is proved.	WIT upto 2 years 11 months.
10. Accident at unmanned level crossings due to lack of vigilance on the part of Loco pilot or failure to whistle on approaching the whistle board.	
1) Accident involving loss of human life.	Reduction to a lower grade.
2) Where no loss of human life is involved.	WIT for 1 year
11. Carriage & Wagon defects or improper securing of loads or failure to detect improper securing of loads by TXR.	

1) Resulting in derailments on the main line, mid-section or within station limits.	For the first offence WIT for 2 yrs.11month. for the second offence reduction to a lower grade for 3 years with loss of seniority (if any staff such as TXR are in the lowest grade, reduction by three stages in the scale of pay with loss of seniority, if the staff are in the lower stages of pay where reduction by three stages is not possible WIP for three years with loss of seniority).
2) Resulting in derailment in a station yard other than main limits.	Same as for item 1) above but without permanent effect and without loss of seniority.
12. Locomotive defects	
1) Negligence in repairs or maintenance in shops or shed resulting in accidents.	Regarding to a lower stage in the time scale with loss of seniority for the first offence, reduction to a lower grade with loss of seniority for the second offence and removal for the third offence.
2) Negligence in repairs or maintenance in shops or sheds or bad enginemanship by Loco pilot resulting in engine failure.	For the first offence stoppage of passes and PTOs for 1 year; the second offence WIT 1 year and for the third offence reduction to a lower grade for 3 years.
13. Traffic staff failure, resulting in accidents other than collisions or averted collisions.	
1) Wrong setting / manipulation of points.	Reduction to a lower grade with loss of seniority
2) Incorrect marshalling	WIP upto three years
3) Wrong marshalling	Reduction to a lower stage in time scale of pay
4) Excessive/uneven loading or improper securing of load	WIT upto three years.
14. Signal & interlocking failures, signal and interlocking defects for which maintenance staff are held responsible resulting :	
a) Accidents of passenger train involving loss of human life	l) If due to causes where 'interlocking' has been shorted, circulated / made inoperative

	'D' Staff-Dismissal 'S' Staff- major penalties under item (v),(vi or (vii))
	ii) If due to cause where 'interlocking' has deteriorated due to bad maintenance repairs. 'D' Staff- Removal 'S' Staff- Penalties under item (v) or (vi)
b) Accidents of passenger or goods train not involving loss of human life.	i) 'D' Staff- Removal 'S' Staff- Penalties under item (v) or (vi)
c) Derailment of goods train on the main line in mid-section or within station limits.	i) 'D' Staff- Item (vi) 'S' Staff- Item (vi) or(v)
d) Derailment of goods train within station yard other than the main line.	i) 'D' Staff - Item (v) 'S' Staff- Item (iv)

Punishment norms in accident cases Civil engineering department

NOTE: (i) 'D' Staff - Staff directly held responsible for the accident.

'S' Staff - Staff who are found to have secondary responsible including that of Supervisors, JE/SE/SSE (P.Way) and PWS etc. whose failure to do proper inspection and take timely remedial measures and slack supervision would have contributed to the accident.

The penalty to be imposed in these cases will depend on the degrees of the contribution to the accident. The disciplinary authority will use his discretion in this matter. While fixing responsibility for slack supervision and neglect of periodical inspections the period, the Supervisors have been in charge of the section is also to be taken into account.

(ii) The Disciplinary Authority must impose the minimum penalty if the responsibility of the staff is clear. Factors like the employee's past

record of service and other extenuating circumstances as for want of materials and similar problems may be taken into account by the Appellate Authority when appeal is made to it. The Disciplinary Authority should deal with the case solely with regard to the facts and circumstances of the accident itself.

Nature of accidents	Minimum penalty
<p>Major track defects such as buckling, worn-out switches and crossings and spread of gauge.</p> <p>i) Resulting in derailment of passenger trains.</p> <p>ii) Resulting in derailment of goods train on the main line in mid section or within station limit.</p> <p>iii) Resulting in derailment of goods train in station yards on other than main line.</p>	<p>a) 'D' Staff -</p> <p>i) Dismissal, if there is loss of life.</p> <p>ii) Removal from service if no loss of life.</p> <p>b) 'S' Staff - Reduction to a lower grade for a period of 3 years, with loss of seniority. If any staff such as JE (P.WAY) are in lowest grade reduction by 3 stages in the scale of pay with loss of seniority. if the staff are in the lowest stages of pay werereductionby3stagesisnotpossible, WIT for 3 years with loss of seniority.</p> <p>a) 'D' Staff -Reduction to a lower grade for a period of 3 years with loss of seniority, if any staff such as JE (P.WAY) are in the lowest grade by 3 stages in the scale for pay with loss of seniority. If the staff are in the lowest stage of pay where reduction by 3 stages is not possible, WIT for 3 years with loss of seniority.</p> <p>b) 'S' Staff- Reduction to a lower stage in time of pay for a period of 3 years with effect of postponing future increments on expiry of such period.</p> <p>a) 'D' Staff - Reduction to a lower stage in time of pay for a period of 2 years without the effect of postponing future increment.</p> <p>b) 'S' Staff - WIT up to 2 years 11 month or with holding of Pass/PTOs for 2 years where the staff has reached the maximum of the grade.</p>

For Staff Of Electrical Department

a) Accidents to passenger train involving loss of human life	Removal from service.
b) Accidents to passenger train not involving of human life.	i) Reduction to lower grade. ii) If the staff is in the lowest grade reduction to a lower stage.
c) Fire accidents involving loss of human life.	Removal from service.
d) Fire accidents without loss of human life	i) Reduction to lower grade ii) If the staff is in the lowest grade reduction to a lower stage.

APPENDIX - Q

Ex-gratia payment to victims of train accident

(Railway Board's Letter No. 2011/TC-III/27/29/ex-gratia dtd. 26th July 2012)

1. **Amount of ex-gratia for train accidents / untoward accidents :** The amount paid as ex-gratia relief payable to the dependents of dead or injured passengers involved in only train accidents as defined under section 124 of the Railway Act 1989 should be as under :

- a) In case of Death - Rs. 50,000/-
- b) In case of Grievous injury - Rs. 25,000/-
- c) In case of Simple injury - Rs. 5,000/-

The amount paid as ex-gratia for train accidents is not to taken into account at the time of formal claims for compensation

Amount of ex-gratia untoward incidents-

The amount paid as ex-gratia relief payable to the dependents of dead or injured passengers involved in untoward incidents as defined under section 124-A of the Railway Act 1989 should be as under :

- a) In case of Death - Rs. 15,000/-
- b) In case of Grievous injury- Rs. 5,000/-
- c) In case of Simple injury - Rs. 500/-

The amount paid as ex-gratia for untoward incidents is not to taken into account at the time of formal claims for compensation.

2. **Amount of ex-gratia for manned level crossing gate accidents :** The amount of ex-gratia relief admissible to road users who meet with an accident due to railway's prima facie liability at manned level crossing gate accidents will be as under :

- a) In case of Death - Rs. 50,000/-
- b) In case of Grievous injury - Rs. 25,000/-
- c) In case of Simple injury - Rs. 5,000/-

Such payments will be counted towards the amount of compensation payable, if action is tenable against the Railways under the Law of Torts and an award is actually granted by a Court of Law.

3. **Ex-gratia for trespassers, persons electrocuted by OHE and road users at unmanned level crossings :** No ex-gratia payment would be admissible to the trespassers, persons electrocuted by OHE and road users at unmanned level crossing.
4. **Ex-gratia payment to Railway servants killed or injured by a moving train while performing their duty :** Ex-gratia payment should also be made to Railway servants killed or injured by a moving train while performing their duty, for example, trackman working on track run over accidentally by a moving train.
5. **Manner of arranging ex-gratia to the victims :** Payments should be sanctioned/arranged preferably on the spot by a senior scale or higher Officer nominated by the Managing Director after making such enquiries as can be reasonably made on the spot after the immediate needs by way of medical attendance etc. to injured persons are attended to.

APPENDIX - R

Format for Reporting of Accidents to Head Quarter and Railway Board (Ref. Rly. Bd's Letter No. 2000/Safety (A & R) /3/5 Dated 23.3.2000)

REPORTING OF ACCIDENTS

First information of the accident was received from of the train No. at — — hrs. The details of the above train accidents on the prescribed format is as under.

1.	Date and time of Accident	
2.	Region	
3.	Section	
4.	Station and Block section	
5.	Gauge / Track/ Electrified/ Route	
6.	System of working	
7.	Train particulars i. Train No. / Name ii. Engine No. iii. Load	
8.	Location	
9.	Brief particulars	
10.	Rolling Stock involved	
11.	Casualty i. Dead ii. Grievous	
	iii. Simple	
12.	SPARMV MFD/ ART Movement	
13.	Officers at site	
14.	Relief arrangements	
15.	Repercussions	
16.	Prima Facie	
17.	State/HQ/Civil Dist.	
18.	Any other information	

APPENDIX – S

EXTRACT FORM INDIAN RAILWAYS ACT 1989

Chapter III.

Commissioner of Railway Safety

Section 5 : Appointment of Chief Commissioner of Railway Safety and Commissioners of Railway Safety. Duties of Commissioner :

The central Government may appointed a person to be the Chief Commissioner of Railway Safety and such other persons as it may consider necessary to be the Commissioners of Railway Safety

Section 6 : The Commissioner shall –

- a) Inspect any Railway with a view to determine whether it is fit to be opened for the public carriage of passengers and report thereon to the Central Government as required by or under this Act;
- b) Make such a periodical or other inspections of any Railway or of any rolling stock used thereon as the Central Government may direct;
- c) Make an inquiry under this Act into the cause of any accident on a Railway and
- d) Discharge such other duties as are conferred on him by or under this Act,.

Section 7 : Power of Commissioner :

Subject to the control of the Central Government, the Commissioner, whenever it is necessary so to do for any of the purposes of this Act, may –

- a) Enter upon and inspect any Railway or any rolling stock used thereon;
- b) By order in writing addressed to a Railway Administrations require the attendance before him of any Railway servant and to require answers of returns to such inquiries as he thinks it to make from such Railway servant or prompt the Railway Administration; and
- c) Require the production of any book, document or material object belonging to or in the possession or control of any Railway Administrations which appears to him to be necessary to inspect.

Section 9 : Facilities to be afforded to Commissioners :

A Railway Administration shall afford to the Commissioner all reasonable facilities for the discharge of the duties or for the exercise of the powers imposed or conferred on him by or under this Act.

Chapter IV

Construction and Maintenances or Works

Section 14 : Temporary enter upon land to remove obstruction, to repair or to prevent

accident.

1. Where in the opinion of a Railway Administration –
 - a) There is imminent danger that any tree, post or structure may fall on the railway so as to obstruct the movement of rolling stock; or
 - b) Any tree, post, or structure or light obstructs the view of any signal provided for movement of rolling stock, or
 - c) Any tree, post, or structure obstructs any telephone or telegraph line maintained by it,

It may take such steps as may be necessary to avert such danger or remove such obstruction and submit a report thereof to the central government in such manner and within such time as may be prescribed.

2. Where in the opinion of a Railway Administration –
 - a) A slip or accident has occurred; or
 - b) There is apprehension of any slip or accident to any cutting, embankment or other work on a Railway,

It may enter upon any lands adjoining the Railway and do all such works as may be necessary for the purpose of repairing or preventing such slip or accident and submit a report thereof to the Central Government in such manner and within such time as may be prescribed.

3. The Central Government may, after considering the report under Sub- Section (1) or Sub-Section (2), in the interest of public safety, by order, direct the railway administration that further action under Sub-Section (1) or Sub-Section (2) shall be stopped or the same shall be subject to such conditions as may be specified in that order.

Chapter V

Opening of Railways

Section 24 : Temporary suspension of traffic –

When an accidents has occurred on a railway resulting in a temporary suspension of traffic, and either the original lines of rails and works have been restored to their original standard or temporary diversion has been laid for the purpose of restoring communication, the original lines of rails and works so restored, or the temporary diversion, as the case may be, may, without prior inspection by the Commissioner, be opened for the public carriage of passengers, subject to the following conditions namely :

- a) The railway servant in -charge of the works undertaken by reason of the accident has certified in writing that the opening of the restored lines of rails and works, or of the temporary diversion will not in his opinion be attended with danger to the public; and
- b) A notice of the opening of the lines of rails and works or the diversion shall be sent immediately to the Commissioner.

Chapter- VIII

Carriage of Passengers

Section 56 :Power to refuse to carry persons suffering from infectious or contagious

diseases.

1. A person suffering from such infectious or contagious diseases, as may be prescribed, shall not enter or remain in any carriage on a railway or travel in a train without the permission of a Railway servant authorized in this behalf.
2. The Railway servant giving permission under Sub-Section (1), shall arrange for the separation of the person suffering from such diseases from the other persons in the train and such person shall be carried in the train subject to such other conditions as may be prescribed.
3. Any person who enters or remains in any carriage or travels in a train without permission as required under Sub-Section (1) or in contravention of any condition prescribed under Sub-Section (2), such person and a person accompanying him shall be liable to the forfeiture of their passes or tickets and removal from railway by any railway servant.

Section 60- Power to make rules in respect of matters in this Chapter:

1. The Central Government may, by notification, make rules to carry out the purpose of this Chapter.
2. In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely :
 - a) The convenience and accommodation (including the reservation of seats or berths in trains) to passengers.
 - b) The amount of refund for the cancellation of a ticket.
 - c) The circumstances under which change of names of passengers having reserved seats or berth, may be permitted;
 - d) The carriage of luggage and the conditions subject to which luggage may be kept in the cloak rooms at the stations;
 - e) Diseases which are infectious or contagious;
 - f) The conditions subject to which a Railway Administration may carry passenger suffering from infectious or contagious diseases and the manner in which carriages used by such passengers may be disinfected;
 - g) Generally, for regulating the travelling upon, and the use, working and management of the railways.
3. Any rule made under this section may provide that a contravention thereof shall be punishable with fine which shall not exceed five hundred rupees.
4. Every railway administration shall keep at every station on its railway a copy of all the rules made under this section and shall also allow any person to inspect it free of charges.

Chapter XII. Accidents

Section 113 : Notice of Railway Accident :

1. Where, in the course of working a railway, -
 - a) Any accident attended with loss of any human life, or with grievous hurt, as defined in the Indian penal code, 45 of 1860 or with such serious injury to property as may be prescribed; or

- b) Any collision between train of which one is a train carrying passengers; or
 - c) The derailment of any train carrying passengers, or of any part such train; or
 - d) Any accident of a description usually with loss of human life or with such grievous hurt as aforesaid or with serious injury to property; or
 - e) Any accident of any other description which the Central Government may notify in this behalf in the Official Gazette, occurs, the Station Master of the station nearest to the place at which the accident occurs or where there is no Station Master, the railway servant in charge of the section of the railway on which the accident occurs shall, without delay, give notice of the accident to the District Magistrate and Superintendent of Police, within whose jurisdiction the accident occurs, the officer in charge of the police station the local limits of which the accident occurs and to such other Magistrate or Police Officer as may be appointed in this behalf by the Central Government.
2. The Railway administration within whose jurisdiction the accident occurs, as also the railway administration to whom the train involved in the accident belongs, shall without delay, give notice of the accident to the state Government and the Commissioner having jurisdiction over the place of the accident.

Section 114 : Inquiry by Commissioner

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

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

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

Section 115 : Inquiry by Railway Administration:

Where no inquiry is held by the commissioner under Sub – Section (1) of section 114 or where the commissioner has informed the railway administration under Sub- Section (2) of that Section that he is not able to hold an inquiry, the railway administration within whose jurisdiction the accident occurs, shall cause an inquiry to be made in accordance with the prescribed procedure.

Section 116 : Power of Commissioner in relation to inquiries:

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 Section 7, have the power as are vested in a civil court while trying a suit under the code of Civil Procedure, 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 purpose of Section 195 and Chapter XXVI of the Code of Criminal Procedure, 2 of 1974.

Section 117 : Statement made before Commissioner :

No statement made by a person in the course of giving evidence in an inquiry before the Commissioner shall subject him to, or be used against him in, any civil or criminal proceeding, except a prosecution for giving false evidence by such statement.

Provided that the statement is :

- a) Made in reply to a question which is required by the commissioner to answer, or
- b) Relevant to the subject – matter of the inquiry.

Section 118 : Procedure etc.

Any Railway Administration or the Commissioner conducting an inquiry under this Chapter may send notice of the inquiry to such persons, follow such procedure, and prepare the report in such manner as may be prescribed.

Section 119 : No inquiry investigation etc. to be made if the Commission of Inquiry is appointed

Notwithstanding anything contained in the foregoing provisions of this Chapter, where a Commissioner of Inquiry is appointed under the Commissioner of Inquiry Act, 1952 (3 of 1952), to inquire into an accident, any inquiry, investigation or other proceeding pending in relation to that accident shall not be proceed with, and all records or other documents relating to such inquiry shall be forwarded to such authority as may be specified by the Central Government in this behalf.

Section 120 : Inquiry into accident not covered by Section 113

Where any accident of the nature not specified in Section 113 occurs in the course of working a railway, the railway administration within whose jurisdiction the accident, occurs, may cause such inquiry to be made into the causes of the accident, as may be prescribed.

Section 121 : Returns

Every railway administration shall send to the Central Government, a return of accidents occurring on its railway, whether attended with injury to any person or not, in such form and manner and at such intervals as may be prescribed.

Section 122 : Power to make rules in respect of matters in this Chapter

- 1. The Central Government may, by notification, make rules to carry out the purposes of this Chapter.
- 2. In a particular, and without prejudice to the generally of the foregoing power, such rules may provide for all or any of the following matters, namely:

- a) The injury to property which shall be considered serious under clause (a) of sub-section (1) of Section 113;
- b) The forms of notice of accidents to be given under Section 113 and the particulars of the accident such notice shall contain;
- c) The manner of sending the notices of accidents, including the class of accidents to be sent immediately after the accident;
- d) The duties of the Commissioner, Railway Administration, Railway Servants, Police Officers and Magistrates on the occurrence of an accident;
- e) The persons to whom notices in respect of an inquiry under this Chapter are to be sent, the procedures to be followed in such inquiry and the manner in which a report of such inquiry shall be prepared;
- f) The nature of inquiry to be made by a railway administration into the causes of an accident under Section 120;
- g) The form and manner of sending a return of accidents by a railway administration under Section 121.

Chapter XIII

Liability of Railway Administration for death and injury to passengers due to accidents

Section 123 : Definitions – In this Chapter, unless the context otherwise requires-

- (a) “Accident “ means an accident of the nature described in Section 124;
- (b) “Dependent”, means any of the following relatives of a deceased passenger, namely:
 - i. The wife, husband, son and daughter, and in case the deceased passenger is unmarried or is a minor, his parent;
 - ii. The parent, minor brother or unmarried sister, widowed sister, widowed daughter-in-law and a minor child predeceased son, if dependent wholly or partly on the deceased passenger.
 - iii. A minor child of a pre – deceased daughter, if wholly dependent on the deceased passenger,
 - iv. The paternal grand parent wholly dependent on the deceased passenger.

Section 124 – Extent of liability :

When in the course of working a railway, an accident occurs, being either a collision between trains of which one is a train carrying passengers or the derailment of or other accident to a train or any part of train carrying passengers, then whether or not there has been any wrongful act, neglect or default on the part of the railway administration such as would entitle a passenger who has been injured or has suffered a loss to maintain an action & recover damages in respect thereof of the railway administration shall, notwithstanding anything contained in any other law, be liable to pay compensation to such extent as may be prescribed and to that extent only for loss occasioned by the death of a passengers, dying as a result of such accident & for personal injury and loss destruction, damage or deterioration of goods owned by the passenger and accompanying him in his compartment or on the train, sustained as a result of such accident.

Explanation:

For the purpose of this section "Passenger" includes a Railway Servant on duty.

Section 125 : Application for compensation –

- 1) An application for compensation under Section 124 may be made to the Claims Tribunal
 - a) By the person who has sustained the injury or suffered any loss, or
 - b) By any agent duly authorized by such person in this behalf, or
 - c) Where such person is a minor, by his guardian, or
 - d) Where death has resulted from the accident by any dependent of the deceased or where such a dependent is minor, by his guardian.
- 2) Every application by a dependent for compensation under this section shall be for the benefit of every other dependent.

Section 126 : Interim Relief by Railway Administration –

1. Where a person who has made an application for compensation under Section 125 desires to be paid interim relief, he may apply to the railway administration for payment of interim relief along with a copy of the application made under that section.
2. Where, on the receipt of an application made under Sub-Section (1) and after making such inquiry as it may deem fit, the railway administration is satisfied that circumstances exist which require relief to be afforded to the applicant immediately it may, pending determination by the Claims Tribunal to the actual amount of compensation payable under Section 124 pay to any person who has sustained the injury or suffered any loss, or where death has resulted from the accident, to any dependent of the deceased, such sum as it considers reasonable for affording such relief, so however, that the sum paid shall not exceed the amount of compensation payable at such rates as may be prescribed.
3. The railway administration shall, as soon as may be, after making an order regarding payment of interim relief under Sub-Section (2) send a copy thereof to the Claims Tribunal.
4. Any sum paid by the railway administration under Sub – Section (2) shall be taken into account by the Claims Tribunal while determining the amount of compensation payable.

Section 127 : Determination of compensation in respect of any injury or loss of goods-

1. Subject to such rules as may be made, the rates of compensation payable in respect of any injury shall be determined by the Claims Tribunal.
2. The compensation payable in respect of any loss of goods shall be such as the Claims Tribunal may, having regard to the circumstances of the case determine to be reasonable.

Section 128 : Saving as to certain rights –

1. The right of any person to claim compensation under Section 124 shall not affect the

right of any such person to recover compensation payable under the Workmen's Compensation Act, 1923 (8 of 1923), or any other law for the time being in force: but no person shall be entitled to claim compensation more than once in respect of the same accident.

2. Nothing in Sub – Section (1) shall affect the right of any person to claim compensation payable under any contract or scheme providing for payment of compensation for death or personal injury or for damage to property or any sum payable under any policy of insurance.

Section 129 : Power to make rules in respect of matters in this Chapter –

1. The Central Government may, by notification, make rules to carry out the purposes of this Chapter.
2. In particular, and without prejudice to the generally of the foregoing power, such rules may provide for all or any of the following matters, namely :
 - a) The compensation payable for death;
 - b) The nature of the injuries for which compensation shall be paid and the amount of such compensation.

Chapter XV Penalties and Offences

Section 145 : Drunkenness or nuisance – if any person in railway carriage or upon any part of a railway.

- a) Is in a state of intoxication or
- b) Commits any nuisance or act of indecency or uses abusive or obscene language; or
- c) Willfully or without excuse interfered with any amenity provided by the railway administration so as to effect the comfortable travel of any passenger, by may be removed by the railway by any railway servant and shall, in addition to the forfeiture of his pass or ticket, be punishable with imprisonment which may extend to six months and with fine which may extend to five hundred rupees:

Provided that in the absence of special and adequate reasons to the contrary to be mentioned in the judgement of the court, such punishment shall not be less than –

- (a) A fine of one hundred rupees in the case of conviction for the first offence; and
- (b) Imprisonment of one month and a fine of two hundred and fifty rupees, in the case of conviction for second or subsequent offence.

Section 146 : Obstructing railway servant in his duties

If any person willfully obstructs or prevents any railway servant in the discharge of his duties, he shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Section 150 : Maliciously wrecking or attempting to wreck a train –

- 1) Subject to the provisions of Sub-Section (2), if any person lawfully,-
 - a) Puts or throws upon across any railway, any wood, stone or other matter or thing; or
 - b) Takes up, removes, loosens or displaces any rail, sleeper or other matter or things belonging to any railway; or
 - c) Turns, moves, unlocks or diverts any points or other machinery belonging to any

- railway; or
- d) Makes or shows, or hides or removes, any signal or light upon or near to any railway; or
- e) Does or cause to be done or attempts to do any other act or thing in relation to any railway, with intent or with knowledge that he is likely to endanger the safety of any person travelling on or being upon the railway, he shall be punishable with imprisonment for life, or with rigorous imprisonment for a term which may extend to ten years:

Provided that in the absence of special and adequate reasons to the contrary to be mentioned in the judgement of the court, where a person is punishable with rigorous imprisonment, such imprisonment shall not be less than –

- a) Three years in the case of a conviction for the first offence; and
- b) Seven years, in the case of conviction for the second or subsequent offence.
- 2) If any person unlawfully does any act or thing referred to in any of the clauses of Sub-Section (1)
 - a) With intent to cause the death of any person and the doing of such act or thing causes the death of any person; or
 - b) With knowledge that such act or thing is so imminently dangerous that it must in all probability cause the death of any person or such bodily injury to any person as it likely to cause the death of such person, he shall be punishable with death or imprisonment for life.

Section 151 : Damage to or destruction of certain railway properties –

- 1. If any person, with intent to cause, or knowing that he is likely to cause damage or destruction to any property of a railway referred to in Sub-Section (2) causes by fire, explosive substances or otherwise, damage to such property or destruction of such property, he shall be punishable with imprisonment for a term which may extend to five years, or with fine, or with both.
- 2. The properties of a railway referred to in Sub-Section (1) are railway track, bridges, station buildings and installation, carriages or wagons, locomotives, signaling telecommunications electric traction and block equipments and such other properties as the Central Government being of the opinion that damages thereto destruction thereof is likely to endanger the operation of a railway, may, by notification, specify.

Section 152 : Maliciously hurting or attempting to hurt persons travelling by railway

If any person unlawfully throws or causes to fall or strike at against, into or upon any rolling stock forming part of a train, any wood, stone or other matter or thing with intent, or with knowledge that he is likely to endanger the safety of any person being in or upon such rolling stock or in or upon any other rolling stock forming part of the same train, he shall be punishable with imprisonment for life, or with imprisonment for a term which may extend to ten years.

Section 153 : Endangering safety persons travelling by railway by willful act or omission –

If any person by any unlawful act or by any willful omission or neglect, endangers or causes to be endangered the safety of any person travelling on or being upon any railway or obstructs or causes to be obstructed or attempts to obstruct any rolling stock upon any railway he shall be punishable with imprisonment for a term which may extend to five years.

Section 154 : Endangering safety of persons travelling by railway by rash or negligent act or omission –

If any person in a rash and negligent manner does any act, or omits to do what he is legally bound to do, and the act or omission is likely to endanger the safety of any person travelling or being upon any railway, he shall be punishable with imprisonment for a term which may extend to one years, or with fine, or with both.

Section 156 : Traveling on roof, step or engine of a train –

If any passenger or any other person, after being warned by a railway servant to desists, persists in traveling on the roof, step or foot board of any carriage or on an engine, or in any other part of a train not intended for the use of passengers he shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both any may be removed from the railways by any railway servant.

Section 160 : Opening or breaking a level crossing gate –

1. If any person, other than a railway servant or a person authorized in this behalf, opens any gate or chain or barrier set up on either side of a level crossing which is closed to road traffic, he shall be punished with imprisonment for a term which may end to three years.
2. If any persons breaks any gate or chain or barrier set up on either side of a level crossing which is closed to road traffic, he shall punishable with imprisonment for a term which may extend to five year.

Section 161 : Negligently crossing unmanned level crossing :

If any person driving or leading a vehicle is negligent in crossing an unmanned level crossing, he shall be punishable with imprisonment for a term which may extend to three years.

Explanation:

For the purpose of this section, “negligence” in relation to any person driving or leading a vehicle in crossing an unmanned level crossing means the crossing by the such person -

- a) Without stopping or caring to stop the vehicle near such railway crossing to observed whether any approaching rolling stock is in sight, or
- b) Even while an approaching rolling stock is in sight.

Section 172 : Penalty for intoxication –

If any railway servant is in a state of intoxication while on duty, he shall be punishable with fine which may extend to five hundred rupees and when the performance of any duty in such is likely to endanger the safety of any person travelling on or being upon a Railway, such railway servant shall be punishable with imprisonment for a term which extend to one year, or with fine, or with both.

Section 173 : Abandoning train etc, without authority –

If any railway servant, when on duty, is entrusted with any responsibility connected with the running of a train, or any other rolling stock from one station or place to another station or place, and he abandons his duty before reaching such station or place without authority or without properly handing over such train or rolling stock to another authorised railway servant, he shall be punishable with imprisonment for a term which may extend to two years, or with fine which may to one thousand rupees or with both.

Section 174 : Obstructing running of train, etc.-

If any railway servant (whether on duty or otherwise) or any other person obstructs or causes to be obstructed or attempts to obstruct any train or other rolling stock upon a railway:

- a) By squatting or picketing or during any rail roko agitation or bandh, or
- b) By keeping without authority any rolling stock on the railway; or
- c) By tampering with, disconnecting or interfering in any other manner with its hose pipe or tampering with signal gear or otherwise, he shall be punishable with imprisonment for a term which may extend to two years, or with fine which may extend to two thousand rupees, or with both.

Section 175 : Endangering the Safety of persons –

If any railway servant, when on duty, endangers the safety of person –

- a) By disobeying any rule made under this Act, or
- b) By disobeying any instruction, direction or order under this Act or the rules made there under, or
- c) By any rash or negligent act or omission, he shall be punishable with imprisonment for a term which may extend to two years, or with fine which may extend to one thousand rupees, or with both.

Section 176 : Obstructing level crossing –

If any railway servant unnecessarily-

- a) Allows any rolling stock to stand across a place where the railway crosses a public road on the level; or
- b) Keeps a level crossing closed against the public, he shall be punishable with fine which may extend to one hundred rupees.

Section 181 : Magistrate having jurisdiction under the Act –

Notwithstanding anything contained in the Code of Criminal Procedure, 2 of 1974, no court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class shall try an offences under this Act.

Appendix-T

Availability of Tower Wagons on Konkan Railway

RN REGION

Sr. No.	Type	Mark	Depot
1.	8 Wheeler		Mangaon
2.	8 Wheeler		Chiplun
3.	8 Wheeler		Ratnagiri
4.	8 Wheeler		Kankavali

KAWR REGION

Sr. No.	Type	Mark	Depot
1.	8 Wheeler		Karmali
2.	8 Wheeler		Karwar
3.	8 Wheeler		Murdeswar
4.	8 Wheeler		Udupi