



पूर्व रेलवे Eastern Railway



Asansol Division



Sealdah Division



Howrah Division



Malda Division

DISASTER MANAGEMENT PLAN

2022 - 2024
PART - A

संरक्षा की सेवा करे, संरक्षा आपकी सेवा करेगा
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अरुन अरोरा

महाप्रबंधक



पूर्व रेलवे

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प्रस्तावना

भारतीय रेलवे की शुरुआत वर्ष 1853 में कुर्ला से ठाणे तक अपनी प्रथम रेलगाडी चलाने के साथ हुई। भारतीय रेलवे ने धीरे-धीरे अपनी खुद की बुनियादी सुविधाओं को विकसित किया जैसे कि दुर्घटनाओं और पटरी से उतरने से निपटने के लिए क्रेन, दुर्घटना राहत ट्रेन (ए.आर.टी.) और दुर्घटना राहत चिकित्सा उपकरण (ए.आर.एम.ई.), इत्यादि। आपदा प्रबंधन अधिनियम की घोषणा से पहले, आपदा का मतलब केवल गंभीर रेल दुर्घटनाएँ और रेल पटरी से उतरना था। आपदा प्रबंधन अधिनियम, 2005 के प्रावधानों के आधार पर पूर्वी रेलवे की आपदा प्रबंधन योजना तैयार की गई है। वर्ष 2005 में आपदा प्रबंधन अधिनियम की घोषणा के साथ, इसका कार्य क्षेत्र बाढ़, भूकंप और आतंकवाद से संबंधित गतिविधियों और अन्य प्राकृतिक आपदाओं की तरह व्यापक हो गया है।

आपदा प्रबंधन योजना के प्रावधान के अनुसार, पूर्वी रेलवे आपदाओं को बेहतर और त्वरित तरीके से संभालने के लिए सभी सरकारी विभागों, गैरसरकारी संगठनों आदि के साथ अपने संसाधन शेयर करता है। आपदा प्रबंधन योजना में शामिल दिशा-निर्देश उपयुक्त बचाव और राहत कार्यों को तेज करने के लिए सम्बंधित विभागों का समन्वय करने में मदद करेंगे।

मैं सभी अधिकारियों और कर्मचारियों से अनुरोध करता हूँ कि वे इसका अध्ययन करें ताकि हम किसी भी प्रकार की आपदा से निपटने के लिए अच्छी तरह से सुसज्जित और तैयार रहे।

अरुन

अरुन अरोरा

महाप्रबंधक



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Arun Arora

GENERAL MANAGER



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FOREWORD

Indian Railways came into existence in 1853 with running of the first train from Kurla to Thane. Railways gradually developed its own infrastructure like Cranes, Accident Relief Trains (ARTs) & Accident Relief Medical Equipments (ARMEs) to tackle accidents and derailments. Before promulgation of Disaster Management Act, disaster meant serious Rail Accidents and train derailments only. Disaster Management Plan of Eastern Railway has been prepared based on the provisions of Disaster Management Act, 2005. With the promulgation of Disaster Management Act in 2005, its scope of work has become wider like floods, earthquakes, and terrorism related activities and other natural calamities.

As per the provision of Disaster Management Plan, Eastern Railway shares its resources with all government departments, NGOs etc to handle disasters in a better and quicker way. The guidelines incorporated in the Disaster Management Plan will help to coordinate concerned wings to make appropriate rescue and relief operations quicker.

I request all Officers & Staff to go through it so that we are well equipped and well prepared to tackle any type of disaster.

(Arun Arora)

General Manager



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चेतन कुमार श्रीवास्तव
मुख्य संरक्षा अधिकारी

C. K. Shrivastava
Principal Chief Safety Officer



PREFACE

Past events in Railway indicate that in addition to the major Railway accidents, natural disasters and man-made disasters have to be dealt with by the Railways in averting and mitigating them. Eastern Railway is situated in one of the most multi hazard prone location like flood, Cyclone, storms, earthquake etc. in various parts spread over West Bengal, Bihar and Jharkhand. Action has to be taken by the Railways and the State Authorities as per Disaster Management Act – 2005.

The Disaster Management Plan is based on the continuous process of up-gradations and additions of required action for mitigation of disasters. DRM/ADRM in the divisions are supposed to be the overall incharge of the Disaster Management system in their respective divisions and make their own Disaster Management Plans based on the guidelines received from Railway Board, Hd. Qrs. and dovetailing the Disaster Management Plan with the respective district plans of the concerned state.

Preparedness, quick mobilization, mobility and fast responses from all concerned including Civil Defence, Territorial Army, Scouts and guides, RPF, gang men and onboard staff from the Railways and Civil Authorities, NDRF, NGOs, Army Organisation from outside the Railways are the backbone on which a disaster management system rests.

Disaster Management Plan of Eastern Railway for the year **2022** has been updated and modified as per latest information received from different corners. Onenew chapter Golden Hour has also been incorporated in the Disaster Management Plan-2021. This requires a lot of infrastructure and preparedness to be made available to avoid and mitigate such disaster. It is expected that divisional plans will take care in consultation with the concerned PHODs for all the above items.


(Chetan Kumar Shrivastava)
Principal Chief Safety Officer

Disaster Management Plan (Part A)

आपदा प्रबंधन योजना

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Chapter 1

CONCEPT OF DISASTER ON RAILWAYS

Disaster Risks in India :

India is vulnerable, in varying degrees, to a large number of natural as well as man-made disasters. 58.6% of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12% of land) is prone to floods and river erosion; of the 7516 km long coastline, close to 5700 km is prone to cyclones and tsunamis; 68% of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. Vulnerability to disasters/emergencies of Chemical, Biological, Radiological and Nuclear (CBRN) origin also exists. Heightened vulnerabilities to disaster risks can be related to expanding population, urbanization and industrialization, development within high-risk zones, environmental degradation and climate change. It can also be related to increase in terrorism around the Globe.

Disaster defined in Railways' context :

The concept of a Disaster was, till the year 2005, not adequately and comprehensively defined on Indian Railways. It was accepted that a Disaster situation implies, on the railways, to cover only cases of serious rail/train accidents. It was, perhaps, due to this anomaly as late as the year 2008, even CAG's report on DM on Indian Railways has broadly adopted this fact in the concept of disaster and has gone to examine the relief/rescue/mitigation and preparedness of Indian Railways based on the earlier concepts and has reviewed the facilities for handling disasters available with the Railways only on the report/recommendations of the HLC on DM of Mr. S. Dhasarathy.

The definition of DM as given by the Government of India was legislated for the first time in the Disaster Management Act, 2005. The broad principles of disaster for any department of the government changed to the concept of any incident which could not be handled with alone by that department i.e. if it was beyond the coping capacity of a particular department, the incident could be termed as a disaster. With this came the concept of the departments of Government of India as also the State governments required to join hands to extend whatever facilities were available with them to provide relief/rescue and mitigation on the occurrence of a disaster.

In the DM plan of Indian Railways, this concept of disaster, which has now evolved, has been adopted. The zonal railways have to ensure that, down the line, this definition is understood.

While this Disaster Management Plan is a comprehensive document, more detailed guidelines where required will be laid down by Railway Board on specific topics under the overall philosophy of Disaster Management laid down in this document. For instance, this has been done in the Guidelines on Chemical Disasters and the Hospital Disaster Management Plan.

Chapter-2

DISASTER MANAGEMENT ACT – 2005

National Policy on Disaster Management (NPDM) :

The Disaster Management Act, 2005 (herein after referred to as the Act), enacted by the Parliament was notified in the Gazette of India 26th December, 2005. The Act provides for the legal and institutional framework for the effective management of disasters. The Act mandates creation of new institutions and assignment of specific roles for Central, State and Local Governments. Under the provisions of the Act, the National Disaster Management Authority (NDMA) has been established under the chairmanship of the Prime Minister and a National Executive Committee (NEC) of Secretaries has been created to assist the NDMA in the performance of its functions. At the State level, a State Disaster Management Authority has been created under the chairmanship of Chief Minister, which has been assisted by a State Executive Committee. At the District level, District Disaster Management Authorities have been created.

The responsibility of laying down the policies on disaster management, approving the National Policy on Disaster Management (NPDM) and laying down the guidelines on Disaster Management has been given to NDMA under the Act. The NDMA accordingly prepared a draft of the National Policy on Disaster Management in consultation with the Home Ministry and submitted the same for approval of the Government.

The Home Ministry has circulated the draft NPDM to the concerned Central Ministries and all the State Governments/Union Territories. The comments received by the Central Ministries/State Governments/Union Territories were duly examined and the acceptable views/comments of Central Ministries/State Governments/Union Territories have been duly incorporated in the NPDM.

Approval of the Cabinet to the NPDM was given in the Cabinet Meeting held on 22.10.2009.

The NPDM envisages a holistic approach to disaster management, encompassing the entire disaster management cycle including prevention, mitigation, preparedness, relief, response, rehabilitation and reconstruction. It addresses all aspects of disaster management covering institutional, legal and financial arrangements, capacity building, knowledge management, research and development. It focuses on the areas where action is needed and the institutional mechanism through which such action can be channelized.

Salient Features of the Disaster Management Act, 2005:

It is the central legislation on Disaster Management around which all the Disaster Management related activities revolve since its enactment. It legislates a holistic approach to Disaster Management; from mere responding to disasters to greater attention to prevention and mitigation, capacity building and preparedness. The Disaster Management Plan of the Railways has been prepared by taking relevant provision of this Act into consideration.

Disaster has been defined in this Act as under:

“Disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area”

Disaster Management has been explained in this Act as under:

“Disaster Management means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for-

- prevention of danger or threat of any disaster;
- mitigation or reduction of risk of any disaster or its severity or consequences;
- capacity-building;
- preparedness to deal with any disaster;
- prompt response to any threatening disaster situation or disaster;
- assessing the severity or magnitude of effects of any disaster;
- evacuation, rescue and relief;
- rehabilitation and reconstruction”

Important Provisions in the DM Act, 2005 Concerning Railways:

Sections 35, 36 & 37 of the DM Act, 2005 detail the responsibilities of Ministries and Departments of Central Govt. as per which a number of measures/actions are to be taken either on their own or in consultation with NDMA. Drawing up mitigation, preparedness and response plans, capacity building, data collection and identification and training of personnel in relation to Disaster Management is one of the key responsibilities. These provisions are summarized as under: -

Section 35

The Central Government shall take all such measures as it deems necessary or expedient for the purpose of disaster management and it shall include:-

- a) Coordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, governmental and non-governmental organizations in relation to disaster management;
- b) Ensure the integration of measures for prevention of disasters and mitigation by Ministries or Departments of the Government of India into their development plans and projects;
- c) Ensure appropriate allocation of funds for prevention of disaster, mitigation, capacity-building and preparedness by the Ministries or Departments of the Government of India;
- d) Ensure that the Ministries or Departments of the government of India take necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster;
- e) Cooperation and assistance to the State Governments, as requested by them;
- f) Deployment of naval, military and air forces, other armed forces of the Union or any other civilian personnel as may be required for the purposes of this Act.

Section 36

It shall be the responsibility of every Ministry or Department of the Government of India to-

- a) Take measures necessary for prevention of disasters, mitigation, preparedness and capacity-building in accordance with the guidelines laid down by the National Authority;

- b) Integrate into its development plans and projects, the measures for prevention or mitigation of disasters in accordance with the guidelines laid down by the National Authority;
- c) Respond effectively and promptly to any threatening disaster situation or disaster in accordance with the guidelines of the National Authority or the directions of the National Executive Committee in this behalf;
- d) Review the enactments administered by it, its policies, rules and regulations, and incorporate provisions for prevention of disasters, mitigation or preparedness;
- e) Allocate funds for measures for prevention of disaster, mitigation, capacity-building and preparedness;
- f) Provide assistance to the National Authority and State Government or
 - i) Drawing up mitigation, preparedness and response plans, capacity building, data collection and identification and training of personnel in relation to disaster management.
 - ii) Carrying out rescue and relief operation in the affected area;
 - iii) Assessing the damage from any disaster;
 - iv) Carrying out rehabilitation and reconstruction;
- g) Make available its resources to the National Executive Committee or a State Executive Committee for the purposes of responding promptly and effectively to any threatening disaster situation or disaster, including measures for-
 - (i) providing emergency communication in a vulnerable or affected area;
 - (ii) Transporting personnel and relief goods to and from the affected area;
 - (iii) Providing evacuation, rescue, temporary shelter or other immediate relief;
 - (iv) Setting up temporary bridges, jetties and landing places;
 - (v) Providing, drinking water, essential provisions, health care, and services in an affected area;
 - (vi) Take such other actions as it may consider necessary for disaster management.

Section 37

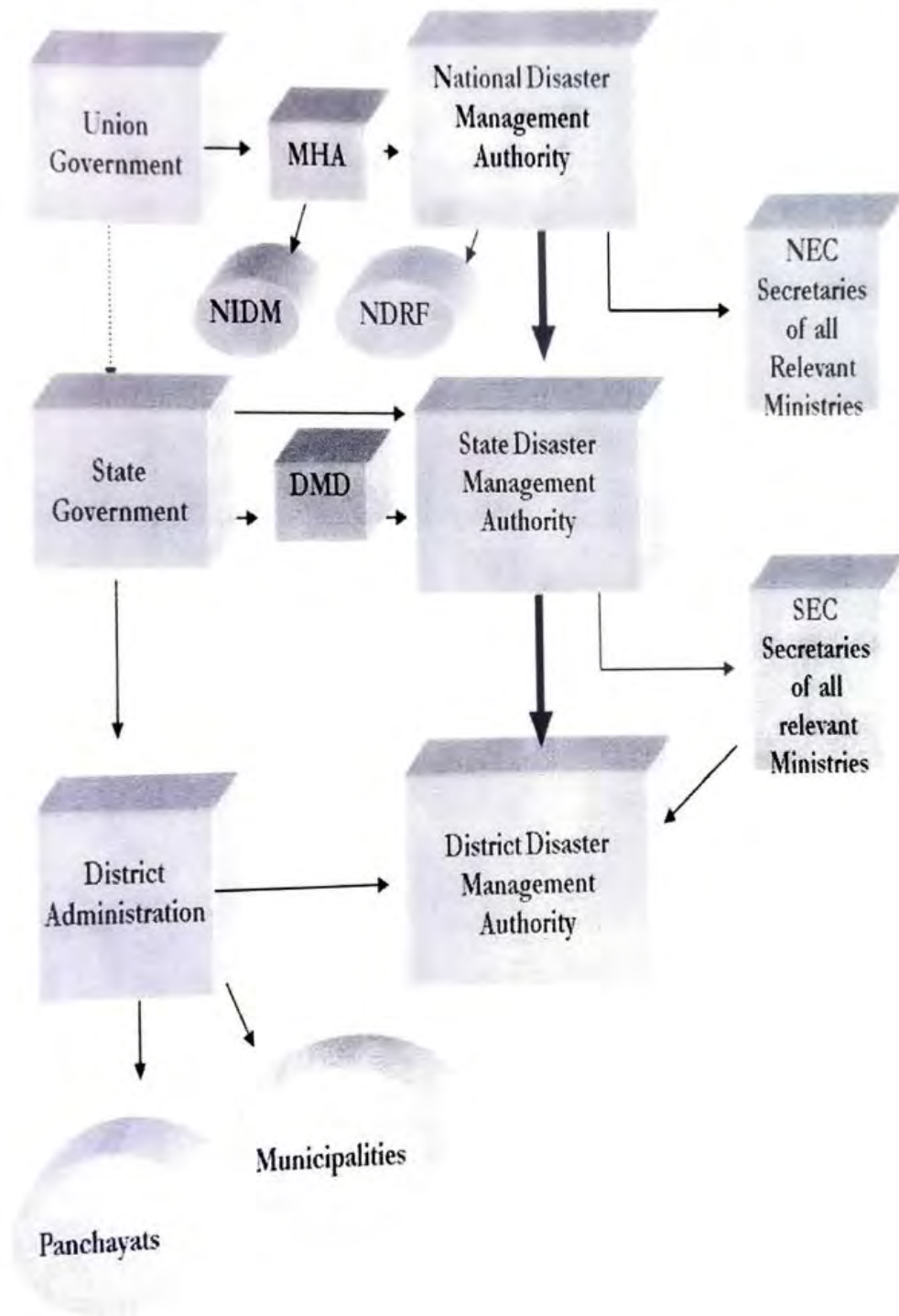
(1) Every Ministry or Department of the Government of India shall-

- a) prepare a disaster management plan specifying the following particulars, namely;
 - (i) the measures to be taken by it for prevention and mitigation of disasters in accordance with the National Plan;
 - (ii) The specifications regarding integration of mitigation measures in its development plans in accordance with the guidelines of the National Authority and the National Executive Committee;
 - (iii) Its roles and responsibilities in relation to preparedness and capacity-building to deal with any threatening disaster situation or disaster;
 - (iv) Its roles and responsibilities in regard to promptly and effectively responding to any threatening disaster situation or disaster.

- (v) The present status of its preparedness to perform the roles and responsibilities specified in sub-clauses (iii) and (iv);
 - (vi) The measures required to be taken in order to enable it to perform its responsibilities specified in sub-clauses (iii) & (iv)
- b) Review and update annually the plan referred to in clause (a);
 - c) Forward a copy of the plan referred to in clause (a) or clause (b), as the case may be, to the Central Government which Government shall forward a copy thereof to the National Authority for its approval.
- (2) Every Ministry or Department of the Government of India shall-
- a) Make, while preparing disaster management plan under clause (a) of subsection (1), provisions for financing the activities specified there in;
 - b) Furnish a status report regarding the implementation of the plan referred to in clause (a) of sub-section (1) to the National Authority, when required by it.

Institutional Framework

Under the Disaster Management Act, 2005



Chapter-3

GENERAL INSTRUCTIONS OF THE RAILWAY BOARD

Board's letter No.89/Safety-1/4/3 dt.4.3.89

1. All Railway men travelling in a train involved in accident should report immediately to the guard.
2. All staff at the accident site should wear arm bands. Accordingly, all passenger carrying trains should be provided with 10 arm bands, to be kept with guard.
3. A permanent check-list to be displayed in all SLRs regarding duties of guard during an accident.
4. Division should nominate controlling stations in each section of their jurisdiction. SMs of these controlling stations on receiving information of accidents will rush to the site of accident with his staff.
5. Every Railway should have fully equipped road ambulance vans in identified areas where a good road infrastructure has developed.
6. A minimum no. of two telephones with STD facility should be provided in the control. Facsimile facilities should also be provided in the division.
7. All ARME, scale I should be provided with cold cutting equipment and should be periodically tested, as also staff in sufficient number should be trained in handling this equipment.
8. Relief train should be given overriding priority with stranded passengers.

Chapter-4

Recommendations of High Level Committee on Disaster Management

1. Various committees have been appointed on the Indian Railways to review Preparedness to handle a Disaster. A high level committee (HLC) was constituted in Sep'02 (headed by Mr. S. Dhasarathy, then MM, Railway Board) to review Disaster Management on the Railways. The terms of reference of this committee were "to review the existing DM system over Indian Railways related to train accidents and natural calamities and to suggest improvements". Despite the above Terms of Reference incorporating an item of natural calamities, the high level committee had mainly gone into DM system over Indian Railways related to train accidents; natural calamities were hardly considered for review of relief/rescue arrangements with the railways.

The report of this committee was published by Railway Board vide letter no. ERB-I/2002/24/44 dated 17.9.02 till 31.3.2015, 100 recommendations have been implemented (including 8 deleted by appropriate authority) out of a total of 111 recommendations on all the Zonal Railways. Four recommendations have been modified and 13 equipment have been recommended to be added to the ARMV/ART. The balance 11 recommendations are under various stages of implementation on the zonal railways.

The recommendations had varying time frame of implementation with maximum being 36 months. Implementation of some of the recommendations has been delayed as the associated policy decision, research and development and vendor identification took some time. With the change in national scenario, some of the recommendations were reviewed to fall in line with the latest concept of participation by all stakeholders during disasters. However, as mentioned above the emphasis of this Committee was to improve Railways resources for handling Train Accidents only.

2. Another Disaster Management Review Committee was appointed on 27.02.07 under the Chairmanship of Shri G Narain, an ex. IPS officer, with Terms of Reference to audit the current preparedness of all types of disasters/hazards for prevention, mitigation, rescue, relief and rehabilitation; integration of disaster reduction concept into development planning; and to recommend areas of multi-stakeholder partnership and citizen participation to establish a coordinated mechanism for disaster reduction, response and rehabilitation, etc.

Report of the Disaster Management Review Committee (Headed by Shri G. Narain), was submitted on 22.12.08, in the form of 106 recommendations, out of which recommendation No. 2 have three parts (A,B&C), thus there are actually 108 recommendations. Out of these 108 recommendations, 67 recommendations are not accepted, 41 recommendations have been accepted (38 recommendations already implemented, 3 recommendations are being implemented).

Chapter-5

CRISIS MANAGEMENT PLAN – CMP

Difference between a Crisis and Disaster:-

A Crisis indicates either an impending calamity or the occurrence of an incident which would adversely affect the society and human population.

A Disaster is a much bigger occurrence of an event which would cause large scale devastation, damage to property and loss of human life, etc.

While a Crisis may or may not turn into a Disaster, the opposite is normally true, but with the condition the crises situation is more in the initial stages.

Crisis - Types:-

There can be broadly 4 types of crisis situation which the Ministry of Railways may be confronted with:-

- (a) National level crisis developed in the Railways and is specific to railways, which is to be managed with the help and assistance of other Ministries. All India Railway Strike is only such crisis identified in the CMP 2015 for which Ministry of Railways is the nodal ministry.
- (b) National level crisis affects the country including Railways and different ministries/departments have to help and assist each other based on their strengths. Cyclone, Earthquake, etc. can be such crisis where Railways have to assist by running special trains. Ministry of Home Affairs has to assist railways under security related crisis situations like sabotage, bomb blasts, etc.
- (c) Crisis situation which is not a national level crisis affects Railway system, which is to be managed with the help and assistance of other Ministries/departments. Chemical explosion in train, fire in train, train falling in river, etc. may be such situations.
- (d) Crisis situation which is not a national level crisis affects Railway system, which can be managed with the help of internal resources from the Railways only.

NATIONAL CRISIS MANAGEMENT COMMITTEE (NCMC):

The NCMC is the apex body comprising senior officials of the Government of India to deliberate on the problems at national level. The following officers will represent the Ministry of Railways (Railway Board) in NCMC for the various crisis situations:-

All India Railway Strike	Member Staff , Member Mechanical (Alternate)
Terrorism/Security related Crisis	Member staff, Member Traffic
Natural Factor(s) related Crisis	Member Engineering , Member Traffic (Alternate)
Major Train Accidents	Member Traffic, Member Mechanical (Alternate)
Crisis where railways have to help other ministries	Member Traffic Member Staff (Alternate)

National Level Crisis :-

The Crisis Management Plan deals with National level crisis situations as under:

- (i) All India Railway Strike – Ministry of Railways is the nodal ministry
- (ii) Terrorism/Security related Crisis – Ministry of Home Affairs is the nodal ministry but Railways have to maintain liaison and flow of information.
- (iii) Natural Factor(s) related Crisis leading to traffic disruption - Ministry of Home Affairs is the nodal ministry but Railways have to maintain liaison and flow of information for assistance to restore the affected railway system.
- (iv) Crisis where Railways have to help other ministries by way of rail transport. Ministries concerned will make their own Crisis Management Plans bringing out the assistance that the Railways will be required to provide to them.

13.5 Drill for handling Crisis:-

The Crisis Management Plan (CMP) is intended to deal with the afore-mentioned crisis situations only. The drill to be followed in the Ministry of Railways (Railway Board) as well as on the Zonal Railways in respect of crisis group, functioning of the Control room, communication, etc., are basically the same for all crisis situations and the same general drill will follow, to be supplemented by the special instructions depending upon the nature of the crisis.

Chapter-6

NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

The Disaster Management Act, 2005, provides the powers, roles and jurisdiction of a National Authority as under:-

Powers and functions of National Authority:

Subject to the provisions of this Act, the National Authority shall have the responsibility for laying down the policies plans and guidelines for disaster management for ensuring timely and effective response to disaster.

The National Authority may–

- a) Lay down policies on disaster management;
- b) Approve the National Plan;
- c) Approve plans prepared by the Ministries or Departments of Government of India in accordance with the National Plan;
- d) Laydown guidelines for the State Authorities to draw up the State Plan;
- e) Laydown guidelines to be followed by the different Ministries or Departments of the Government of India for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
- f) Coordinate the enforcement and implementation of the policy and plan for disaster management;
- g) Recommend provision of funds for the purpose of mitigation;
- h) Provide such support to other countries affected by major disasters as may be determined by the Central Government;
- i) Take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disaster as it may consider necessary;
- j) Lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management;

Constitution and Role of NDMA:

It is constituted under the DM Acts the apex body in the country to deal with Disaster Management holistically. Hon'ble Prime Minister is the ex-officio Chairperson of the Authority and presently Shri M. Shashidhar Reddy is the Vice-Chairperson. The Members have also been nominated and the total number of Members is limited to nine to be nominated by the Chairperson. Vice Chairperson is Cabinet rank and Members are State rank Ministers.

NDMA is responsible for laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster.

State and Districts have also been mandated to constitute State and District Disaster Management Authorities respectively on the line of NDMA.

Constitution of Advisory Committee by National Authority:

The National Authority may constitute an Advisory Committee consisting of experts in the field of disaster management and having practical experience of disaster management at the National, State or District level to make recommendations on different aspects of disaster management;

National Executive Committee:

The Central Government shall, immediately after issue of notification under sub-section (1) of section 3, constitute a National Executive Committee to assist the National Authority in the performance of its functions under this act.

The National Executive Committee shall consist of the following members, namely:

- (a) The Secretary to the Government of India in charge of Ministry or Department of the Central Government having administrative control of the disaster management, who shall be Chair person, ex-officio ;
- (b) The Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defense, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and the Chief of the Integrated Defense Staff of the Chiefs of Staff Committee as ex-officio, members.

The National Executive Committee shall assist the National Authority in the discharge of its functions and have the responsibility for implementing the policies and plans of the National Authority and ensure the compliance of directions issued by the Central Government for the purpose of disaster management in the country.

The **National Executive Committee** may-

- Acts the coordinating and monitoring body for disaster management;
- Prepare the National Plan to be approved by the National Authority;
- Coordinate and monitor the implementation of the National Policy;
- Laydown guidelines for preparing disaster management plans by different Ministries or Departments or State Authorities;
- Provide necessary technical assistance to the State Government and State Authorities for preparing their DM plans in accordance with the guidelines laid down by the National Authority;
- Monitor the implementation of the National Plan and the plans prepared by the Ministries or Departments of the Government of India;
- Monitor the implementation of the guidelines laid down by the National Authority for Integrating of measures for prevention of disasters and mitigation by the Ministries or Departments in their development plans and projects;
- Monitor, coordinate and give directions regarding the mitigation and preparedness measures to be taken by different Ministries or Departments and agencies of the Government;
- Evaluate the preparedness at all governmental levels for the purpose of responding to any threatening disaster situation and give directions where necessary for enhancing such preparedness;
- Plan and coordinate specialized training programmed for disaster management for different levels of officers, employees and voluntary rescue workers;
- Coordinate response in the event of any threatening disaster situation or disaster;
- Laydown guidelines for, or give directions to, the concerned Ministries or Departments of the Government of India, the State Government and the State Authorities regarding measures to be taken by them in response to any threatening disaster situation or disaster;
- Require any department or agency of the Government to make available to the National Authority or State Authorities such men or material resources
- as are available with it for the purposes of emergency response, rescue and relief;
- Advise, assist and coordinate the activities of the Ministries or Departments of the Government of India, State Authorities, statutory bodies, other governmental or non-governmental organizations and others engaged in disaster management;
- Provide necessary technical assistance or give advice to the State Authorities and District Authorities for carrying out their functions under this Act;
- Promote general education and awareness in relation to disaster management;
- Perform such other functions as the National Authority may require it to perform.

National Plan:-

There shall be drawn a plan for Disaster Management for the whole of the country to be called the National Plan;

The National Plan shall be prepared by the National Executive Committee having regard to the National Policy and in consultation with the State Governments and expert bodies in the field of Disaster Management to be approved by the National Authority;

The National Plan shall include-

- Measures to be taken for the prevention of disasters, or the mitigation of their effects;
- Measures to be taken for the integration of mitigation measures in the development plans;
- Measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster;
- Role and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (a), (b) and (c).

The National Plan shall be reviewed and updated annually.

Appropriate provisions shall be made by the Central Government for financing the measures to be carried out under the National Plan;

Copies of the National Plan referred to above shall be made available to the Ministries or Departments of the Government of India and such Ministries or Departments (including Railways) shall draw up their own plans in accordance with the National Plan.

Guidelines for minimum standards of relief :

The National Authority shall recommend guidelines for the minimum standards of relief to be provided to person's affected by disaster, which shall include-

- a) The minimum requirements to be provided in the relief camps in addition to shelter, food, drinking water, medical cover and sanitation;
- b) The special provisions to be made for widows and orphans;
- c) Exgratia assistance on account of loss of life as also assistance on account of damage to houses and restoration of means of livelihood;
- d) Such other relief as maybe necessary;

Relief in loan repayment, etc.

The National Authority may, in cases of disasters of severe magnitude recommend relief in repayment of loans or for grant of fresh loans to the persons affected by disaster on such concessional terms as may be appropriate;

Role of the Nodal and other Central Ministries and Departments etc.:-

For various types of disasters, the nodal Ministry concerned will chart out detailed Response Plans which will be integrated into the National Response Plan. The NEC may coordinate response in the event of any threatening disaster situation or disaster.

- Role of Central Ministries and Departments

As disaster management is a multi-disciplinary process, the National Policy on Disaster Management lays down that all Central Ministries and Departments will have a key role in the field of disaster management. The nodal Ministries and Departments of Government of India (i.e. the Ministries of Agriculture, Atomic Energy, Civil Aviation, Earth Sciences, Environment and Forests, Home Affairs, Health, Mines, Railways, Space, Water Resources etc.) will continue to address specific disasters as assigned to them.

- Institutional Arrangements of Central Government

➤ Armed Forces :

Conceptually, the Armed Forces are called upon to assist the civil administration only when the situation is beyond their coping capability. In practice, however, the armed forces form an important part of the Government's response capacity and are immediate responders in all serious disaster situations. On account of their vast potential to meet any adverse challenge, speed of operational response and the resources and capabilities at their disposal, the armed forces have historically played a major role in emergency support functions. These include communication, search and rescue operations, health and medical facilities, and transportation, especially in the immediate after a disaster. The air and heli-lift and movement of assistance to neighboring countries primarily fall within the expertise and domain of the armed forces. The armed forces will participate in imparting training to trainers and DM managers, especially in CBRN aspects, heli-insertion, high altitude rescue, waterman ship and training of paramedics. At the national level, the Chief of the Integrated Defense Staff and the Chairman Chiefs of Staff Committee has already been included in the NEC. Similarly, at the State and District levels, the local representatives of the armed forces may be included in their executive committees to ensure closer coordination and cohesion.

➤ Central Para Military Forces :

The Central Paramilitary forces, which are also the armed forces of the Union, play a key role at the time of immediate response to disasters. Besides contributing to the NDRF, they will develop adequate disaster management capability within their own forces and respond to disasters which may occur in the areas where they are posted. The local representatives of the CPMFs may be co-opted/invited in the executive committee at the State level.

➤ State Police Forces and Fire Services :

The State Police forces and the Fire Services are crucial immediate responders to disasters. The police force will be trained and the Fire Services upgraded to acquire multi-hazard rescue capability.

➤ Civil Defense and Home Guards :

The mandate of the Civil Defense and the Home Guards will be redefined to assign an effective role in the field of disaster management. They will be deployed for community preparedness and public awareness. A culture of voluntary reporting to duty stations in the event of any disasters will be promoted.

➤ State Disaster Response Force (SDRF) :

States will be encouraged to create response capabilities from within their existing resources. To start with, each state may aim at equipping and training one battalion equivalent force. They will also include women members for looking after the needs of women and children. NDRF battalions and their training institutions will assist the States/UTs in this effort. The States/UTs will also be encouraged to include DM training in their respective Police Training Colleges and basic and in-service courses, for gazetted and non-gazetted officers.

Guidelines issued by NDMA and Action thereon-

Till 2010, NDMA have already issued guidelines on the Management of Earthquakes, Cyclones, Floods, Medical Preparedness and Mass Casualty Management, Chemical Disasters, Biological Disasters, Nuclear Disasters, Chemical (Terrorism) Disaster, Landslides and Snow Avalanches and Preparation of State Disaster Management Plans, Incidence Response System, strengthening of Safety and securing for transportation of POL Tankers, Management of Tsunamis, Role of NGOs in DM, Management of Drought etc. These guidelines are available on the NDMA website at <http://ndma.gov.in>. These Guidelines are statutory and mandate all the stake-holders including Railways to take necessary measures for prevention and mitigation of all types of disasters possible on their system and also to have mechanism in place for rescue, relief and restoration, if these happen.

Guidelines on Chemical Disasters issued by NDMA are very relevant for the Railways, as we transport a number of hazardous chemicals by rail. These guidelines add to safe guards listed in the Red Tariff on handling, storage and transportation of hazardous material. These guidelines are directed more towards their prevention and mitigation of their effects, if these happen, than on rescue and relief operations afterwards.

Guidelines on Chemical (Terrorism) Disaster call for the railways to strengthen mechanism against chemical terrorism related disasters. Medical and RPF personnel would be required to be given specialized training to handle such a disaster.

Guidelines on Nuclear and Biological Disasters call for the railways to take stipulated precautions in the transportation of Radio-active substances and Chemical (Biological) items.

Guidelines on Preparation of State Disaster Management Plans concern the zonal Railways to the extent that co-ordination mechanism between the State Governments and the Railways should be institutionalized for disaster response. The Relief Commissioners in the States may be coordinated for assistance required from the State Governments, district officials as also to involve NGOs. Mutual sharing of each other's strengths and facilities has to be institutionalized as a system.

Guidelines on Management of Earthquakes, Cyclones, and Floods broadly necessitate zonal Railways to survey their existing infrastructure with respect to earthquake, floods and cyclone preparedness based on the vulnerability maps and to take necessary action for making the infrastructure resistant to such disasters. All new construction should henceforth necessarily be disaster resistant.

Guidelines on Medical Preparedness and Mass Casualty Management envisage train based casualty transport and evacuation system with following highlights:

1. In MCM (Mass Casualty Management), wherever required Railways needs to provide transportation facility for Mass Casualty Evacuation (MCE). Where required, ARMVs or special trains may be run to facilitate relief from the nearest coaching terminal to the disaster site.
2. The railway disaster plan will provide support to the community and local administration during mass casualty emergencies. Assistance through Railways' infrastructure of Hospitals etc. has to be provided as and when it is asked for.

Railway Board examined the workability of the NDMA guidelines and held meeting with NDMA officials on 30.4.09. Suggested changes in the guidelines as agreed to by NDMA are now to be suitably incorporated in the HQ and Division Level DM Plans of Zonal Railways. Necessary instructions on the above have been issued vide Board's letter No.2003/Safety (DM)/6/3 Pt. dated 21.5.09.

NDMA have issued Guidelines on :-

Sl.No	GUIDE LINES OF NDMA	Release Date
1.	Guidelines for Preparation of Action Plan - Prevention and Management of Heat Wave	Oct 2019
2.	Landslide Risk Management Strategy	Sept 2019
3.	Guidelines on Disability Inclusive Disaster Risk Reduction	Sept 2019
4.	Guidelines on Temporary Shelters for Disaster-Affected Families	Sept 2019
5.	Guidelines on Prevention & Management of Thunderstorm & Lightning/Squall/Dust/Hailstorm & Strong Winds	March 2019
6.	Guidelines on Boat Safety	Sept 2017
7.	Guidelines on Cultural Heritage Sites and Precincts	Sept 2017
8.	Guidelines on Museums	May 2017
9.	Guidelines on Minimum Standards of Relief	Feb 2016
10.	Guidelines on Hospital Safety	Feb 2016
11.	Guidelines on School Safety Policy	Feb 2016
12.	Guidelines on Seismic Retrofitting of Deficient Buildings and Structures.	June 2014
13.	Guidelines on Scaling, Type of Equipment and Training of Fire Services	April 2012
14.	Guidelines on National Disaster Management Information and Communication System	Feb 2012
15.	Guidelines on Management of Drought	Sept 2010

16.	Guidelines on Management of Urban Flooding	Sept 2010
17.	Guidelines on Management of Dead in the Aftermath of Disaster	Aug 2010
18.	Guidelines on Management of Tsunamis	Aug 2010
19.	Guidelines on Incident Response System	July 2010
20.	Guidelines on Psycho-Social Support and Mental Health Services in Disasters	Dec 2009
21.	Guidelines on Management of Chemical(Terrorism) Disasters	June 2009
22.	Guidelines on Management of Landslides and Snow Avalanches	June 2009
23.	Guidelines on Management of Nuclear and Radiological Emergencies	Feb 2009
24.	Guidelines on Management of Biological Disasters	July 2008
25.	Guidelines on Management of Cyclones	April 2008
26.	Guidelines on Management of Floods	Jan 2008
27.	Guidelines on Medical Preparedness and Mass Casualty Management	Oct 2007
28.	Guidelines on Preparation of State Disaster Management Plans	July 2007
29.	Guidelines on Chemical Disasters	April 2007
30.	Guidelines on Management of Earthquakes	April 2007

(These Guidelines can be downloaded from NDMA's website www.ndma.gov.in)

Reports by NDMA

In Addition to above Guidelines, NDMA has further issued following Reports (as Broad Guidelines):-

- Revamping of Civil Defence
- NIDM's Functioning
- Pandemic Preparedness Beyond Health
- Disaster Response Training at the Centre & States
- NDRF and SDRF
- Strengthening Safety/Security in Transportation of POL Tankers
- Threats to Municipal Water Supply and Water Reservoirs
- Mechanism to Detect, Prevent and Respond to Radiological Emergencies
- Management of Dead in the After Disaster
- Minimum Standards of Relief
- Role of NGOs in Disaster Management

Corrigendum done in ER Disaster management plant part a as per railway Board letter No: 2020/Safety(DM) /6/14 dated 31.08.2020. Following 10 Points have been incorporated in DMP

NDMA issued 10 points agenda as per Advised by Hon'ble PM for Incorporation Railway Disaster Management Plan Part A. Following are 10 Points agenda which are available at web-site of NDMA for further illustration. These Points are included in Safety Disaster Management Plan

A: 10 Points to be included in DMP Part A

1. All development sectors must imbibe the principles of disaster risk management.
2. Work towards risk coverage for all - starting from poor households to small and medium enterprises to multinational corporations to nation states
3. Encourage greater involvement and leadership of women in disaster risk management.
4. Invest in risk mapping globally.
5. Leverage technology to enhance the efficiency of our disaster risk management efforts.
6. Develop a network of universities to work on disaster issues.
7. Utilize the opportunities provided by social media and mobile technologies.
8. Build on local capacity and initiative.
9. Ensure that the opportunity to learn from a disaster is not wasted.
10. Bring about greater cohesion in international response to disasters.

B: For Development Work

Beside this NDMA also launched to Vulnerability Atlas Prepared by Building Material Technology Promotion Council (BMTPC) in 2019 which may be taken into consideration while carrying out development for disaster resilience. The detail information available at website of <https://ndma.gov.in/en/> for further details.

Prime Minister's Ten Point Agenda on DRR



Prime Minister's Ten Point Agenda for Disaster Risk Reduction

Sl No.	Agenda Point
1	All development sectors must imbibe the principles of disaster risk management ▼
2	Risk coverage must include all, starting from poor households to SMEs to multi-national corporations to nation states ▼
3	Women's leadership and greater involvement should be central to disaster risk management ▼
4	Invest in risk mapping globally to improve global understanding of Nature and disaster risks ▼
5	Leverage technology to enhance the efficiency of disaster risk management efforts ▼
6	Develop a network of universities to work on disaster-related issues ▼
7	Utilise the opportunities provided by social media and mobile technologies for disaster risk reduction ▼
8	Build on local capacity and initiative to enhance disaster risk reduction ▼
9	Make use of every opportunity to learn from disasters and, to achieve that, there must be studies on the lessons after every disaster ▼
10	Bring about greater cohesion in international response to disasters ▼

Chapter-7

NATIONAL DISASTER RESPONSE FORCE

General – First and Key Responders:

The role and importance of community, under the leadership of the local authorities, Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), being the bedrock of the process of disaster response, is well recognized. For their immediate support, there are other important first responders like the police, State Disaster Response Force (SDRFs), Fire and Medical Services. The NDRF will provide specialist response training whenever required. In serious situations, the resources of all NDRF battalions (18 teams per battalion), on an as required basis, will be concentrated in the shortest possible time in the disaster affected areas. Other important responders will be the Civil Defence, Home Guards and youth organizations such as NCC, NSS and NYKS. The deployment of the armed forces will also be organized on as required basis. Establishment/raising of NDRF should progressively reduce deployment of the Armed Forces. However, Armed Forces would be deployed only when the situation is beyond the coping capacity of State Government and NDRF.

Location, Constitution and Functions

These have been formed under the Disaster Management Act at 10 selected locations in the country for dealing with relief and rescue operations related to all types of disasters. Each Battalion has 6 Companies comprising of 3 teams each. Team comprises of 45 men out of which 24 are for Search & Rescue and balance 21 for support functions. Short-listed & trained staffs are on deputation in NDRF.

As per the Disaster Management Act, various ministries and departments under Government of India should join hands for mutual assistance in case of a disaster. Assistance from local government and non-government agencies is invariably required by the railway administration for prompt relief and rescue operation in case of disasters affecting railways and, therefore, assistance of NDRF could be of great help to the railways. The rail infrastructure is not in an island away from the civil areas (of the Districts/States). In most cases of a disaster, other than a train accident, the State Governments as well as the Zonal Railways would, therefore, requisition the NDRF simultaneously (for the same disaster). Coordination amongst the affected agencies (many departments of the Central Government and the States) is very important before the help of NDRF is required.

Coordination with NDRF

Zonal Railways should get in touch with NDRF offices at the nearby locations to have the first-hand knowledge of the resources available with them and also to familiarize them with railway related

disaster situations and expose them to the issues relevant to the rescue and relief of passengers during railway accident. It has also been advised to associate NDRF in full scale exercise that is held once every year. There are no charges for availing the services of NDRF except the rail transportation which railways may provide at their cost for attending to rail disasters. Railways may also have to provide rail transportation logistics for transporting NDRF even in case of non-railway exigencies.

The Railway Board has empowered DRMs/CSOs to directly requisition the relevant NDRF battalion for relief and rescue operations depending on the gravity of situation so that their services could be made available expeditiously without any loss of time. During the meeting between NDMA/NDRF and Railway Board officials held on 19th February, 2013, it was decided that each NDRF battalion should carry out at least one or two mock exercises/coordinating meeting with respective Zonal Railways under their purview every year.

Comments on the Indian Railways Disaster Management Plan by NDMA

NDMA should be involved in annual exercises on DM by Indian Railways for validation of their Zonal DM Plans, a NDMA Plans and conducts more than 100 mock exercises on various types of disasters and has the requisite expertise in creating scenarios and their efficient implementation.

During meeting held on 26th July, 2010 between NDMA/NDRF and Railway Authorities, it was decided that the Railways would be associated in all future mock exercises being conducted by the NDMA and for which a copy of annual calendar of mock exercises will be provided by the NDMA and CSOs will coordinate Zonal Railways' participation in such mock exercises. Similarly, Railways will carry out mock exercises on train accidents in presence of NDRF Battalion Commandants.

Chapter-8

THE GUIDELINES OF FIRST AID

DEFINATION: First Aid may be defined as the assistance rendered before definitive treatment can be carried out, it is usually performed at the scene of the accident .Before medical aid is available, the responsibility for such treatment may rest upon non-medical personnel.

- i. Help injured persons to achieve normal breathing conditions.
- ii. Bleeding should be tackled on a priority basis starting from profuse bleeding, the continuance of which would endanger life.
- iii. The injuries should be supported and secured by simple methods.
- iv. Any person who is, or has been entrapped under the debris must be treated on the assumption that the severest injuries have been received, which might include fracture of the thigh or pelvis or spine.
- v. A person who is wholly or partly unconscious or one who is suspected of suffering from internal injury should not to be given anything to eat or drink.
- vi. All injured persons suffer from primary shock. They should be treated carefully. Secondary shock should not be allowed to come on.
- vii. Chill must be prevented by covering with suitable clothing or blanket. Similarly during summer injured to be shifted to a cooler place, avoiding direct hot sunbeam.
- viii. Care, gentleness, assurance and good behavior are necessary except for the hysteria patients, who require firm handling.

HAEMORRHAGE (SEVERE BLEEDING)

Bleeding may be—

- i. Arterial (from an artery)
- ii. Venous (from a vein)
- iii. Capillary (from a capillary)
- iv. Mixed (from a combination of the above vessels)

Guidelines for the signs and symptoms of severe bleeding either external or internal are as follows:-

- i. Rapid loss of strength accompanied by faintness especially if the patient is raised to sitting or standing position.
- ii. Face and lips become pale and the skin cold.
- iii. Breathing becomes hurried and may be accompanied by swing sighting.
- iv. Pulse becomes progressively faster and weaker and become so feeble be felt at the wrist.
- v. He becomes thirsty.
- vi. He may become restless and throws his arms about or tug at clothing round the neck.
- vii. Finally the patient may become unconscious. If these signs are observed but external cause is not apparent, the case should be regarded as one of internal hemorrhage and dealt with as a matter of urgency by immediate removal of the casualty to hospital.

EXTERNAL HAEMORRHAGE

The following should be kept in mind while attending to the external hemorrhage.

- i. Firm pressure applied to a wound will always nearly stop bleeding and should be done with a clean pad and firmly applied Elastoplast's bandage. If this method fails, extra pressure with the flat of the hand over the Elastoplast's will usually succeed.
- ii. Where possible, raise the bleeding point above the level of the heart. For instance, in bleeding from the leg, lay the patient down, raise his leg into the air and support it in that posture.
- iii. The above method will nearly arrest bleeding completely. If, however, the flow of blood is still brisk, additional pressure may be applied to the appropriate pressure points with the fingers.

Bleeding from the Head:

Press backward and inward with the thumb on a point half way up the neck just in front of the strap like muscle, running vertically at the side of the neck and thereby compressing the carotid artery.

Bleeding from the arm:

Press behind the middle of the collar bone in a downward direction in order to compress the Sub-clavion artery on to the first rib.

Bleeding from the leg:

Press firmly with the thumbs onto one third of the distance from the inner to the outer side of the thigh in the groin area.

Bleeding from the socket:

Plug the socket firmly with cotton wool and place over this a larger plug, instructs the patient to grip firmly on to the large plug with the teeth.

Bleeding from the palm of the hand:

Place a firm pad of gauge over the bleeding point and instruct the patient to close his hand over it. Then put bandage firmly over the close fist.

Bleeding from the finger:

Apply a pad of linter gauge over the wound and secure firmly in position with Elastoplast plaster (The Elastoplast finger dress is very effective for this purpose). This always controls the hemorrhage.

Bleeding from the wounds of chest and abdomen

Lay the patient on stretcher; apply a firm pad and Elastoplast's bandage to the wound and shift the patient to a hospital as quickly as possible. If the wound runs across the abdomen, keep the knees slightly bent by means of cushion or pillow placed under knees as this would keep the wound closed. If the wound runs lengthwise, keep the knees straight for the same reason.

Note – We should avoid use of a tourniquet as far as possible. It can be dangerous in the hands of a novice and if adequate care is not taken. Only trained people should use tourniquet.

SHOCK

- i. Shock is the sudden depression of the nervous system, mostly due to paid injuries hemorrhage. In case of shock, there may be partial/complete insensibility.
- ii. Following treatment will help the patient to recover from shock
- iii. Raise the patient with the head lower than the body and limbs; this position will ensure blood supply to the brain and prevent any collection in the mouth and throat from getting into the air passage.
- iv. Keep the patient warm, if his body is cold and clammy. The later will aggravate the shock.
- v. Give the patient continuous sips of a warm sweet drink like tea, cocoa or coffee to stimulate the depressed system.

FRACTURE

Fracture may be classified as –

- i. Simple or closed fracture where the skin is not broken.
- ii. Compound or open fracture i.e. there is wound over the fracture.

General treatment of a simple fracture:

Methods of treatment vary with the bones but in general this treatment consists of making the patient comfortable and warm splinting the broken bone as far as possible with the materials at hand applying a sling to the arm or putting the patient on a stretcher in case of a broken leg and sending him to hospital as quickly as possible.

General treatment of a Compound fracture

The compound fracture is a much more serious injury than a simple fracture because although the wound may be quite small, there is ample room for entry of bacteria which might cause infection and thereof. It is important to apply a dry sterile dressing or clean pad over the wound at once. This seals the wound.

LOSS OF CONSCIOUSNESS

Loss of consciousness can be of two types -

- i. Unconsciousness where breathing is grossly interfered with.
- ii. Unconsciousness with breathing present and usually normal.

The causes are many and vary.

- Injury
- Medical causes -
 - Apoplexy (hemorrhage in the brain)
 - Alcohol
 - Epilepsy
 - Diabetes
 - Heat-stroke
 - Poisoning

- Fainting
- Shock
- Exposure to cold

Many of these conditions stimulate one another closely and to distinguish one from the other requires expert knowledge. A patient suffering from cerebral hemorrhage may be judged to be drunk because his breath smells off alcohol.

It is dangerous to lead to conclusions in conditions of unconsciousness. Rather, try to sort out the signs and symptoms to arrive at a definite and accurate diagnosis. It is better to seek medical advice immediately.

Treatment for loss of consciousness:

A - AIRWAY

- i. Keep a clear air way.
- ii. Prevent the patient from damaging himself.
- iii. Apply artificial respiration, if necessary.
- iv. Give nothing by the mouth.
- v. Send to hospital.

B – BREATHING:

Check for breathing. Keep the back of your fingers near the nose of the patient. You can feel the warm air (or) keep your ear near the nose and look for the movement of chest, listen to the sound from the throat and feel the warm air from the nose.

C – CIRCULATION:

Check the pulse. Normally we check the pulse at the wrist; however, sometimes it is not felt because of severe bleeding. So it is better to check the pulse at neck. (Carotid Pulse).

After checking A-B-C, there may be two possibilities:

- If the patient is breathing, has circulation but in unconsciousness, immediately turn him to Recovery position and transport to hospital.
- If the patient has failure of breathing and circulation, then immediately start CPR (CARDIO PULMONARY RESUSCITATION), the important lifesaving technique in First Aid.

To revive the lungs, you have to give artificial respiration by mouth to mouth (Kiss of Life) method. Lift the Chin forward and press the jaw to open the mouth with one hand and close the nose with other hand. Keep your mouth on the casualty's mouth and blow.

To revive the heart you have to give external chest compression. The casualty should be made to lie down on a hard surface. Keep heel of the palm on the chest (Pit of stomach) of the casualty and keep the other palm over that hand and compress.

Mouth to mouth ventilation and external chest compression should be given in the ratio of 2:15. This should be continued up to the revival of life or till reaching the hospital. Once life starts, immediately turn the casualty into recovery position and transport to hospital. (Recovery position or three quarter prone position means turn to one side, better to right side).

Recovery position: Recovery position is the safest position for unconscious patients. Normally we keep the patient in a supine position. However, in case of unconscious patients, it is a very dangerous position because the tongue can fall back and close the airway or saliva and other secretions may get into windpipe. To avoid that, turn the casualty into recovery position and transport to hospital.

Sometimes, you may not be in a position to do First Aid due to tense situation. In this situation, at least turn the casualty to Recovery Position, that would help to save many precious lives.

Chapter-9

LOCATION AND BEAT OF ART, CRANE AND MEDICAL VAN

A) SDAH Division

DIVISION	STATION OF ART	CLASS OF RELIEF TRAIN	PROVISION / CAPACITY OF B.D. CRANE	ART	140T BD CRANE		ARMV
				SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	MAX BEAT (IN KM)	SECTIONAL JURISDICTION
SDAH	BGA	A(Conv)	140T (DSL Hyd.)	SDAH- NH-KYI (Exclu.), KGK (Chcord) - SDAH (S.Section), DDJ-BLYH , DDJ-BNJ, DDJ-HNB, SDAH-CG-DH- BGB- NAMKHANA , .Enter Kolkata Goods & Coaching Complex including CP/Yd. Circular Rly. DDJ-MJT MAX. BEAT SDAH-NAMKHANA = 108	Entire SDAH Divn. DDJ to C.C Link West cabin (exclu), MAX BEAT SDAH - LGL = 226.89	SDAH- LGL = 226.89	SDAH-NH-KYI(Exl),KGK(Chord) DDJ-BLYH , DDJ-BNJ, DDJ-HNB, SDAH-CG-DH-BGB-NAMKHANA. MAX BEAT SDAH-NAMKHANA = 108
	RHA	B	NA	RHA-KYI-KLYM, RHA- STB- BNJ(Exclu), RHA- GEDE-LGL. MAX BEAT RHA- LGL = 153.71	NA	N/A	RHA-KYI-KYLM , RHA-BNJ(Exl), RHA-GXD, RHA-LGL-STB,Br. MAX BEAT RHA-LGL= 153.71

B) HWH Division

DIVISION	STATION OF ART	CLASS OF RELIEF	PROVISION / CAPACITY OF B.D. CRANE	ART	140T BD CRANE		ARMV
				SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION
HWH	HWH	A	140T (DSL HYD)	HWH-HGY, HWH-BMAE,DKAE-BLYH(Exclu.),DKAE-CC WEST,BZL-CC EAST, HWH-SHE-TAK-BISHNUPUR(Exclu), SE.RLY. Diversion. CCR Link. MAX BEAT HWH - BISHNUPUR= 117.40	HWH - KAN(inclu), HWH-KWAE(inclu), HWH-SHE-TAK-BISHNUPUR(Exclu) DKAE-CC LINK (West Cabin), HWH-BTNG, HWH-BWN-BGNA MAX BEAT HWH -KAN = 120	HWH-KAN = 120	3 - Coach SPARMV HWH-KAN-SNT(Exclu) via HBC, HWH-BDC-SKG-GLI,HWH-BDC-KWAE-BZLE, HWH-SHE-TAK-BISHNUPUR(exclu), BDC-BZLE MAX BEAT HWH-SNT= 190.81
	BDC	B	NA	HGY-BDC-MUG, MUG-TABE Link, BDC-NH Branch, BDC-KWAE. MAX BEAT BDC-KWAE= 105	NA	N/A	N/A
	BWN	SP	NA	BWN-BMAE, BWN-MUG, BWN-GLI(Exclu) BWN-BGNA-KWAE(Exclu.) MAX BEAT BWN-MUG= 60.45	NA	N/A	N/A
	RPH	A	140T (DSL Hyd.)	KAN-RPH-GMAN, RPH-SNT, RPH-NHT-AZ- KWAE(Exclu) - BZLE-AZ-JRLE,AMP-KWAE(Exclu) RPH-DUMKA(Exclu) MAX BEAT RPH-KWAE= 132	RPH-KAN(Exclu), RPH-GMAN(inclu), RPH-NHT-AZ-KWAE(Exclu)-JRLE (Excl), AMP-KWAE(Exclu) RPH-SNT-SURI (Exclu), RPH- Dumka (Exclu) MAX BEAT RPH-KWAE= 132	RPH-KWAE = 134	SURI-SNT-RPH-NHT-GMAN, BZLE-AZ-JRLE, AZ-NHT, RPH - Dumka (Exclu) , AMP-KWAE(Exclu). MAX BEAT RPH-JRLE= 94.70

C) ASN Division

DIVISION	STATION OF ART	CLASS OF RELIEF TRAIN	PROVISION / CAPACITY OF B.D. CRANE	ART	140T BD CRANE		ARMV
				SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION
ASN	UDL	B	NA	GLI(Inclu.)-RNG(Exclu.) UDL-SNT(Exclu.), UDL- TOP- IKRA-BBI- STN(Exclu.), TOP- BBI Chord, BMGA- Palasthali & All siding & Branch line between UDL-RNG, PAW- PSME MAX BEAT UDL-SNT(Exclu.) = 73.40	NA	NA	NA
	ASN	A	140T (Diesel Hyd.)	ASN-RNG(Inclu), ASN- VDS, ASN - PKA (Exclu.) and all sidings & branches between RNG-BCQ, MAX BEAT ASN-VDS = 57.47	ASN-KAN(Exclu),ASN- JAJ(Exclu), ASN- DHN(Exclu),ASN-MDP- GRD, ASN-JSME-BDME- DUMKA- BANKA (Excl), ASN-UDL- SURI(Inclu), UDL- PAW- PSME, UDL-TOP-BBI- STN, TOP- BBI Chord,All Siding and Branch lines between of ASN Divn. MAX BEAT ASN -DUMKA = 182	ASN-DUMKA = 182	3-Coach SPARMV Complete Asansol Division. MAX BEAT ASN-DUMKA = 182
	MDP	B		MDP-JAJ(Exclu.), MDP- GRD, MDP-VDS(Exclu), JSME-BANKA(Exclu.), JSME-DUMKA, MAX BEAT MDP-DUMKA =100.53	NA		NA

D) MLDT DIVISION :-

DIVISION	STATION OF ART	CLASS OF RELIEF TRAIN	PROVISION / CAPACITY OF B.D. CRANE	ART	140T BD CRANE		ARMV
				SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION	SECTIONAL JURISDICTION
MLDT	MLDT	B	NA	MLDT-NFK-AJLE(Exclu) and NTPC Yard, MLDT-KIR after permission. MAX BEAT MLDT-AJLE(Exclu) = 111	NA	NA	MLDT-NFK-AJLE(Exclu) MAX BEAT MLDT-AJLE(Exclu) = 111
	SBG	A	140T (Diesel Hyd.)	SBG-BHW(Inclu), SBG-BGP(Inclu), RJJ-TPH branch. MAX BEAT SBG-BGP = 73	SBG- KEU (excl), SBG-GMAN (Excl), SBG-BHW-AZ (Excl), SBG-MLDT, SBG- BGP-MDLE- HSDA- DUMKA (Excl), BGP- BANKA, SBG- JMP- MGR, SBG-RJJ MAX BEAT SBG-DUMKA = 192	SBG-DUMKA = 192	SBG-BGP, BGP- BHW-NFK, RJJ-TPH, SBG-BHW-SNT(Excl). MAX BEAT SBG-SNT = 160.39
	JMP	B	NA	JMP-BGP(Exclu), JMP-KEU(exclu), JMP-MGR, JMP-MDLE- HANSDIHA-DUMKA (EXCL), JMP-BGP-Barahat-Banka(Exclu BGP),Ory. Siding, D/shed JMP, JMP Workshop & Traffic Yard. MAX BEAT JMP-DUMKA (Excl) = 171	NA	NA	3 - Coach SPARMV BGP-KEU, MGR-JMP,BGP- MDLE-BANKA- HSDA- DUMKA (Excl). MAX BEAT JMP-DUMKA (Excl) = 171

Chapter-10

PRESERVATION OF CLUES AND PREPARATION OF JOINT NOTE AND SITE SKETCH AT THE ACCIDENT SITE

Ref: Rly.Board's letter no. 99/Safety-1/12/6 dtd. 7.12.2004

Justice G.C.Garg commission Report of Inquiry into the accident between 2903 Up Golden Temple Mail and 3125 Dn Sealdah Express on 26.II.1998 on Northern Railway recommended a few observations and Railway Board has accepted as well as directed the Zonal Railways to ensure implementation of these recommendations.(Reference Rly.Bd.'s letter no. 99/Safety-1/12/6 dtd.17.12.2004.

'It is reiterated that the Railways should take care to preserve the clues of the accident and ensure that the detailed guidelines and methodology, laid down in the Accident Manuals on this issue are strictly followed so that correct conclusion can be arrived at by the enquiring authority. Documents like Train Signal Register and other documents relating to train passing operations, diaries of maintenance staff, driver's note book , loco repair book etc. relevant to a particular accident should be taken into possession immediately after the accident and the statement/s of the train staff and the loco crew should be recorded at the site by Safety officer or their representatives and these documents be made available by him to the enquiring authority at the earliest possible opportunity.

It should also be ensured that video cassette/cassettes of the site of a serious accident are prepared not by taking clippings here and there but, in a continuous manner by specifically showing the position of the coaches, the track and the clues so that these may provide some information about the cause of the accident. The video cassettes and the developed film rolls should be preserved without editing and made available to the enquiring authority as it is so that, if need be, it may view the video cassette. The developed film roll should not be cut into strips even though it may be used for getting the prints.

It should also be ensured that the Sr. Subordinates, deputed to prepare the joint note and the site sketch , are specifically nominated for this work and should not be disturbed or assigned any other duty till they complete this work. Joint note, site sketch as well as the divisional plan should be prepared with due care, depicting all the relevant details, and sufficient time should be given for this purpose by the concerned officials. Sr. DSO/DSO should scrutinize the site sketch and the joint note to ensure that the documents are complete and are as per the Railway Accident Manual.'

The guidelines already existing in the Accident Manuals of the zonal railways and those issued by Board should also be strictly adhered to.

Chapter-11

GUIDELINES FOR DISASTER DURING EARTHQUAKE

Disaster Management Plans of the Divisions should be dovetailed with the Disaster Management Plan of the Districts of the State. Disaster Management Plan Booklet – 2003-04 of the Government of West Bengal indicates that the control room will be opened in districts, sub-divisions and block levels under the district administrative authorities and panchayat functionaries at various manners.

EARTHQUAKE PRONE ZONE OF STATE OF WEST BENGAL

A Very high damage risk zone (MSK IX or more).

- | | |
|---------------------------|----------------------------|
| 1 East Part of Jalpaiguri | 2 East Part of Cooch Behar |
|---------------------------|----------------------------|

B High damage risk zone (MSK VIII)

- | | |
|----------------------------------|----------------------------------|
| 1 West part of North 24-Parganas | 2 West part of South 24-Parganas |
| 3 North part of Malda | 4 Dakshin Dinajpur |
| 5 Uttar-Dinajpur | 6 Darjeeling |
| 7 West Part of Cooch Behar | |

C Moderate damage risk zone (MSK VII)

- | | |
|--|----------------------------------|
| 1 West and North part of South 24-Parganas | 2 Medinipur |
| 3 Howrah | 4 Hoogly |
| 5 Bankura | 6 East and North Part of Purulia |
| 7 Bardhaman | 8 Nadia |
| 9 Birbhum | 10 Murshidabad |
| 11 South part of Malda | |

D Low damage risk zone (MSK VI)

- | | |
|--------------------------------|------------------------------|
| 1 South West part of Purulia | 2 South West part of Bankura |
| 3 North West part of Medinipur | |

IMPLEMENTATION OF NDMA'S (I) GUIDELINES ON MANAGEMENT OF EARTH QUAKES (APRIL, 2007) (II) GUIDELINES ON MANAGEMENT OF FLOODS (JAN. 2008)

Summary of NDMA Guidelines on Earthquakes and Floods

Railway Infrastructure	Earthquake Proneness Review	Flood Proneness Review
<ul style="list-style-type: none"> • Railway Track Formation (including station Yards, bridges/culverts, ROBs/RUBs etc) • Buildings housing signaling gears like RRI, SSI etc. • Buildings in Open line maintenance work centers like loco sheds Coaching depots etc. • Station buildings • Control room, other important office buildings, etc. • High-rise residential buildings, other important residential buildings • Railway hospitals 	<ul style="list-style-type: none"> • New Construction: Must be earthquake resistant. • Existing Infrastructure: Identify existing railway infrastructure falling under various seismic zones. Review for earthquake resistant adequacy based on age, foundation and other details. Retrofit/rebuild to make it earthquake resistant. • Training of Engineers (at various levels) Associated with design and construction of railway infrastructure. 	<ul style="list-style-type: none"> • New Construction: Railway Station buildings should be located in such a fashion that they are above the levels corresponding to a 100 year frequency or the maximum observed flood levels. Similarly they should also be above the levels corresponding to a 50 year rain fall and the likely subversion due to drainage congestion. Government offices buildings should be above a level corresponding to a 25 year flood or a 10 year rainfall with stipulation that all buildings in vulnerable zones should be constructed on columns or stilts. Railway Track at levels well above the likely flood levels. • Existing Infrastructure: Co-ordination with flood/rain forecasting agencies to get early warning so as to introduce patrolling. Speed restriction etc. as per the provisions in Railway's SR. Inspections of Railway Affecting Works – to be streamlined and timely ensured. Review of water ways for adequacy and alignment and measures to modify, if needed. Status Note on the lessons learnt from the previous flood situations in the past 5 years. Bye-laws for buildings in flood prone plains. Making existing and new buildings and infrastructure capable of withstanding fury of floods.

ACTION TO BE TAKEN BY EASTERN RAILWAY IN CASE OF EARTHQUAKES –

NDMA'S GUIDELINES

- Repair deep plaster cracks in ceilings and foundations. Get expert advice if there are signs of structural defects.
- Anchor overhead lighting fixtures to the ceiling.
- Follow BIS codes relevant to your area for building standards.
- Fasten shelves securely to walls.
- Place large or heavy objects on lower shelves.
- Store breakable items such as bottled foods, glass, and china in low closed cabinets with latches.
- Hang heavy items such as pictures and mirrors away from beds, settees and anywhere people sit.
- Brace overhead light and fan fixtures.
- Repair defective electrical wiring and leaky gas connections. These are potential fire risks.
- Secure a water heater, LPG cylinder etc., by strapping it to the wall stud and bolting it to the floor.
- Store weed killers, pesticides, and flammable products securely in closed cabinets with latches and on bottom shelves.
- Identify safe places both indoors and outdoors.
 - Under strong dining table, bed
 - Against an inside wall.
 - Away from where glass could shatter around windows, mirrors, pictures, or where heavy book cases or other heavy furniture could fall over.
 - In the open, away from buildings, trees, telephone and electrical lines, flyovers, bridges.
- Educate yourself and family members.
- Know emergency telephone numbers (doctor, hospital, police etc.)
- Have a disaster emergency kit ready
 - Battery operated torch
 - Extra batteries
 - Battery operated radio
 - First aid kit and manual
 - Emergency food (dry items) and water (packed and sealed)
 - Candles and matches in a water proof container
 - Knife
 - Chlorine tablets or powdered water purifiers
 - Can opener.
 - Essential medicines
 - Cash and credit cards
 - Thick ropes and cords
 - Sturdy shoes

- Develop an emergency communication plan
 - In case family members are separated from one another during an earthquake (a real possibility during the day when adults are at work and children are at school), develop a plan for reuniting after the disaster.
 - Family contacts after a disaster it's often easier to call long distance. Make sure everyone in the family knows the name, address, and phone number of the contact person.
- Help your community get ready
 - Publish a special section in your local newspaper with emergency information on earthquakes. Localize the information by printing the phone numbers of local emergency services offices and hospitals.
 - Conduct a week-long series on locating hazards in the home.
 - Work with local emergency services and officials to prepare special reports for people with mobility impairments on what to do during an earthquake.
 - Provide tips on conducting earthquake drills in the home.
 - Interview representatives of the gas, electric, and water companies about shutting off utilities.

What to Do during an Earthquake

Stay as safe as possible during an earthquake. Be aware that some earthquakes are actually foreshocks and a larger earthquake might occur. Minimize your movements to a few steps to a nearby safe place and stay indoors until the shaking has stopped and you are sure existence is safe.

If Indoors

- **DROP** to the ground; take **COVER** by getting under a study table or other piece of furniture; and **HOLD ON** until the shaking stops. If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.
- Stay in bed if you are there when the earthquake strikes. Hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, load bearing doorway.
- Stay inside until the shaking stops and it is safe to go outside.
- Beware that the electricity may go out or the sprinkler systems or fire alarms may turn on.

After an earthquake

- Do not use the elevators.
- If trapped under debris, do not light a match.
- Do not move a body or kick up dust.
- Do not smoke and do not light matches or use a cigarette lighter.
- Do not turn on switches. There may be gas leaks or short-circuits.
- If people are seriously injured, do not move them unless in danger.
- If you know if people have been buried, tell the rescue teams. Do not rush and do not worsen the situation of injured persons or your own situation.
- Do not touch any metal object in contact with electric wire.
- Do not drink water from open containers without having examined it and filtered it through a sieve, a filter or an ordinary clean cloth.
- Do not re-enter badly damaged buildings and do not go near damaged structures.

AS per Railway Board letter No: 12.01.2022, In event of earth quack the traffic controller should shall instruct each stranded train operation to proceed in restricted manual mode at walking speed after examination that the track is safe for train movement and free from obstruction up to next station provided that such event, the normal operation of train may be resumed if all track and structure are examined. Further following instruction of PED safety should be noted:

- 1. Operating of train immediately after earth quack through provision in G&SR*
- 2. Post earth quack inspection of track & bridges to confirm their integrity before resuming normal operation through provision in IRPWM &IRBM*
- 3. While detailed action to be taken after an earth quack may be decided by respective department and supposed to be laid down in the manual code /instructions issued by respective department. It seems advisable to have general Safety provision in G&SR also to guide such action post an earth quack.*

Chapter-12

GUIDELINES FOR DISASTER DURING FLOOD

FLOOD PRONE AREA OF WEST BENGAL

1 Jalpaiguri 2 Cooch Bihar 3 Dakshin Dinajpur 4 Malda 5 Bardhaman
6 Nadia 7 Medinipur

Statement Showing the List of Nodal Officers during the Flood Season-2003

SI No	Station District/Place	Name Address of the coordinating Officers/Officers working in absence of the co-ordinating Officer	Telephone No.	
			Office	Residence
1	State Quarters Head	I) Superintending Engineer & P. A to Chief Engineer- I, I & W Department, Jalasampad Bhawan, Salt Lake, Kolkata -91	2321-5749 FAX 2334-6245 2321-8341	2464-3564
		CONTROL ROOM ii) Executive Engineer & T. A to Chief Engineer – I, I & W Department, Jalasampad Bhawan, Salt Lake, Kolkata – 91	2321-5749	2494-3428
		iii) Executive Engineer ,Chief Engineer's Drawing Branch	2337-8489	2435-9583
2	North 24-Parganas	Executive Engineer, Bidyadhari Drainage Division, Taki Road, P.O. Barasat, District : North 24- Parganas.	2562-4520	2562-6308
3	Hooghly	Executive Engineer, Hooghly Irrigation Division Peara Bagan Road, P.O.: Chinsurah, District: Hooghly.	2680-2735	2681-9519
4	Burdwan	I) Executive Engineer, Damodar Canal Division, Court Compound, District: Burdwan Res: Sadhanpur near Burdwan Polytechnic, Burdwan.	95342-2562496 FAX 95342-2550166 Control Room 95342-2545672 95342-2545672	95342-2521150
		ii) S.D.O., Damodar Canal Hd Quarters.		95342-2544611
5	Durgapur	Executive Engineer, Damodar Head Works Division, Durgapur – 2, District – Burdwan Res: Attached to Office	95343-2555640	95343-2555534/2557268 (Bungalow) 95342-2557268 (Barrage)

6	Bankura	Executive Engineer, Bankura (I) Division, Kangsabati Circle, Kenduadihi, P.O.: & District: Bankura	953242-254934 FAX 953242-250322	953242- 250506
7	Khatra, Bankura	i) Executive Engineer, Kangsabati Canal Divn. No. II, Khatra, Bankura Res: Attached to Office ii) S.D.O., K.L.B., Sub-Division- II (Mukutmanipur)	953243-255236 FAX 953243-255262 953243-253233	953243- 255272
8	Paschim Medinipur	i) Executive Engineer, West Medinipur Division, P.O. & District-Medinipur	953222-275373 FAX	953222- 275466
9	Purba Medinipur	i) Executive Engineer, East Medinipur Division, P.O.: Tamluk, District: Medinipur Res: Attached to Office ii) Executive Engineer, Contai Irrigation Division	953228-266779 953220-255162 FAX 953220-256436	953228- 66367 953220- 257862
10	Nadia	Executive Engineer, Nadia Irrigation Division, P.O.: Krishnanagar, Dist.: Nadia.	953472-252451	953472- 252643
11	Murshidabad	Executive Engineer, Berhampore (I) Division, P.O.: Berhampore, District – Murshidabad	953482-250845 FAX 953482-250434	953482- 250505
12	Birbhum	Executive Engineer, Mayurakshi Head Quarters, Division: Suri, Birbhum	953462-255229 FAX 953462-255191	953463- 262507
13	Bolepur	Executive Engineer, Mayurakshi South Canals Division, Shyambati, Shantiniketan, Birbhum Res: Attached to Office	953463-252256 FAX 953463-253166	953463- 262507
14	Rampurhat	Executive Engineer, Mayurakshi North Canals Division, P.O.: Rampurhat, District – Birbhum	953461-255039 Control Room FAX 953461-256265	953461- 255079
15	Malda	Executive Engineer, Malda (I) Division, Green Park, Malda	953512-252395 FAX 953512-254350 Control Room	953512- 252278
16	Raiganj	Executive Engineer, North Dinajpur Irrigation Division, Raiganj, North Dinajpur	953523-252008 FAX 953523-253327	953523- 252424
17	Balurghat	i) Executive Engineer, South Dinajpur Irrigation, Division, Balurghat, South Dinajpur (ii) Assistant Engineer, Balurghat(I) Sub-Division, Balurghat, South Dinajpur	953522-255113 FAX(PWD) 953522-255265 953522-255265	953522- 255057
18	Alipurduar	Executive Engineer, Alipurduar Irrigation Division, Alipurduar, Jalpaiguri	953564-255305	

19	Siliguri	Executive Engineer, Alipurduar Irrigation Division, Alipurduar, Jalpaiguri	953564-255305	
20	Jalpaiguri	FloodCellNorth Bengal i) Executive Engineer, Jalpaiguri Irrigation, Division Club, Road Jalpaiguri Res: Attached to Office	953561-230153 FAX 953561-230789 953561-230249	953561-230409
21	Cooch Bihar	Executive Engineer, Cooch Bihar Irrigation Division, P.O.: & District: Kooch Bihar	953582-228305 Control Room	953582-228557
22	Purulia	Executive Engineer, Purulia Irrigation Division, Ranchi Road, Bhatbandh Irrigation Colony, P.O.: & District – Purulia, Purulia – 723 101	953252-222407 FAX 953252-222720	

ACTION PLAN:

- Flood/Weather fore casting in consultation with IMD and other agencies like CWC, State Government, Local bodies etc.
- Development of system of collecting data using modern techniques. Monitoring of land slides, flood danger to bridges, bridge approaches causing interruption to traffic.
- Identification of flood prone areas, RAT, RAW and formation prone to erosion and marking them on railway system map. Monitoring of behavior of rivers which pose danger to railway embankment.
- Documentation of records of floods and breaches.
- Flood insurance of railway properties – A pilot project to be taken by each Railway through the help of suitable consultant.
- Mechanism for co-ordination with State Government and other Central agencies on flood control and erosion etc.
- Sanction of execution of Anti-erosion works of track formation and bridges etc.
- Improvement to waterways of Railway Bridges in track formation (if necessary) including sanction and execution of works.
- Development of flood shelters for staff and passengers at suitable locations in the areas prone to repeated floods.
- Implementation of Bye-laws for building in flood prone areas including modification of works manual.
- Training on flood management to officials in various Railway training schools and Institutions by devising suitable syllabus.
- Emergency response team on flood

- Emergency equipment and relief logistic
- Medical Preparedness Plan
- **Guideline for Dos and Dots to be followed for** instruction for Prevention and Mitigation measure in the light of enhanced vulnerability due to ongoing COVID-19 Pandemic as available on website <https://ndma.gov.in/>. & Attached

Chapter-13

GUIDELINES DURING CHEMICAL DISASTERS

Indian Railway's Rules for carrying dangerous (hazardous goods) by rail have been legislated in the Railway Red Tariff Rule 2000 as per which dangerous goods have been classified into following 8 classes:

- I Explosives
- II Gases, compressed, liquefied or dissolved under pressure.
- III Petroleum & other inflammable liquids.
- IV Inflammable solids.
- V Oxidizing substance
- VI Poisonous (Toxic substances)
- VII Radio-active substances
- VIII Acids & other Corrosives.

Out of the above 8 classes of dangerous goods, class II (Gases, compressed, liquefied or dissolved under pressure), III (Petroleum and other inflammable liquids) and VIII (Acids and other corrosive) are dealt in bulk on the railways whereas other classes of dangerous goods are dealt in piecemeal/small quantities in parcel vans/SLRs. Railways may refer to the specific paras pertaining to all these classes of dangerous goods. However, important relevant details of the popular classes (II, III and VIII) of dangerous goods are detailed as under:

CLASS II (GASES, COMPRESSED, LIQUIFIED OR DISSOLVED UNDER PRESSURE)

Gases compressed, liquefied or dissolved under pressure, which have been permitted for their carriage by rail, as per Red Tariff No. 20 is given below:

Dissolved Gases:

- Acetylene (compressed into porous substances).

Compressed Gases:

- Air Compressed
- Argon
- Coal Gas
- Hydrogen
- Methane
- Neon
- Nitrogen
- Oxygen
- Sulphur Hexa fluoride

Liquefied Gases:

- Ammonia (Anhydrous)

- Chlorine
- Liquefied petroleum Gas(Commercial Butane or Propane)
- Carbon dioxide (Carbonic Acid Gas)
- Cyclopropane gas
- Ethyl Chloride
- Freon, Arctonor Genetron
- Hydro-cyanic Acid
- Medical Mixtures (Oxygen and Carbon di oxide &Oxygen and Helium mixture)
- Methyl Bromide
- Methyl Chlorine (Chloromethane)
- Nitrous Oxide
- Sulphur Dioxide Toxic(Sulphurous Acid Gas)
- Liquid Air
- Liquid Nitrogen
- Liquid Heluim

General Rules regarding acceptance of above commodities for carriage by rail are given in Rules 202, 203, 204, 205 & 206 of Red Tariff No. 20.

Packing

Before the above commodities are transported by rail, it must be packed as per rules 207.1 & 207.2 of Ref Tariff No. 20.

However, Rule 207.2 i.e. rule for protection of cylinder valves during transport shall not apply to cylinders containing oxygen or nitrous oxide for medical purposes having water capacity less than 5 liters.

Marking& labeling of Cylinders or Containers

Rules for Marking & Labeling of cylinders are given in rules 208 & 209 of Red Tariff No. 20. It must be ensured that the date of the last hydrostatic test or hydrostatic stretch test with the code mark of recognized testing station is marked on every cylinder. In the case of liquefied petroleum gas cylinders, the quarter and the year of test shall be given additionally in a neck ring or on a shoulder plate.

Storage (Refer Rule No. 211 of Ref Tariff No. 20)

Following points must be ensured:

- Thin wall cylinders such as liquefied petroleum gas cylinders and dissolved gas cylinders shall not be stacked in a horizontal position.
- Cylinders containing flammable gases, other toxic gases shall be kept away from cylinders containing other type of gases.
- Cylinders shall not be stored along with any combustible material.

Precautions in handling & storing gas cylinders or containers: (Refer Rule No. 212 of Red Tariff No. 20)

Commodities mentioned in this chapter, shall not be stored or handled with or near explosives or other dangerous goods. Smoking and carrying any type of fire must not be allowed near these commodities.

Modes of Transportation

Regarding modes of transportation, referrals 213, 214, 215, 216, 217 & 218 of Red Tariff No. 20.

Storage and Carriage

Storage & carriage rules of Gases, compressed, liquefied or dissolved under pressure are discussed in rules 219, 220, 221, 226, 227 & 228 of Red Tariff No. 20

Additional Rules

Exceptional or Additional Rules regarding packing, marking and labeling, carriage by Goods/Mixed/Parcel train and storage and Carriage rules have been specified in Table II, Chapter II of Red Tariff No. 20. Characteristic property of gas & pictorial level indicating main characteristics of the gas is also indicated in column 2 & column 3 of table II.

CLASS – III (PETROLEUM & OTHER INFLAMMABLE LIQUIDS)

Petroleum and other inflammable liquids i.e. mixture of liquids & liquids containing solids in solution which give off inflammable vapor and is capable of ignition in suitable concentration of air when exposed to a source of ignition. Petroleum and other inflammable liquids are considered dangerous as per Railways Act 1989 (24 of 1989) and have been classified in three classes i.e. Class – ‘A’, Class ‘B’ & Class ‘C’.

- (i) Class A: Petroleum and other inflammable liquids, the vapor of which having flash point below 23°C.
- (ii) Class B: Petroleum and other inflammable liquids, the vapor of which having flash point above 23°C but below 65°C.
- (iii) Class C: Petroleum and other inflammable liquids, the vapor of which having flash point at 65°C.

A list of items included under above three classes is given in table III, Chapter III of Red Tariff No. 20.

Rules regarding general restrictions on conveyance and acceptance of petroleum and other inflammable liquids have been detailed in rules 302, 303, 304, 305 & 306 of Red Tariff No. 20.

Packing, Marking & Labelling

It is to be ensured that the words “Highly inflammable” and “Inflammable” as the case may be, is marked on every package containing petroleum and other inflammable liquids. Every tank vehicle used for transportation of petroleum must be marked on each side, and rear thereof in letters at least 7 cms high on a background of sharply contrasting colour the word “ FLAMMALE ” and the common name of the liquid being transported e.g. “ MOTOR SPIRIT”, “ KEROSENE” etc. For method of packing, marking and labelling of petroleum and other inflammable liquids, Rules 308, 309 & 310 of Red Tariff No. 20 may be referred.

Time of Loading and Unloading: All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset.

Prohibition of smoking, fires etc.: Smoking, taking fire, naked light matches or other articles of inflammable nature is strictly prohibited near petroleum and other inflammable liquids.

Transportation

- a) Petroleum and other inflammable liquids, Class 'A', shall be transported by goods trains only.
- b) Petroleum and other inflammable liquids, Class 'B' and 'C' may be transported in wagons by all trains except passenger trains.

Conveyance in tank wagons

Tank wagons used for the conveyance of petroleum and other inflammable liquids shall be of a design approved by the Chief Controller of explosives.

Stick warning in wagons

A '**DANGEROUS**' label must be affixed to both sides of every wagon.

CLASS – VIII: ACIDS AND OTHER CORROSIVES

A List of Acids and other corrosives which have been considered dangerous goods are given in Chapter VIII, table VIII of Red Tariff No. 20.

Packing, Marking and Labelling:

More precautions need to be taken by Railway Officials that it is packed strictly in the manner laid down in column 2 of table VIII and as per rules 807 of Red Tariff No. 20.

Handling and Storage

Time of loading and unloading:

All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset.

Transportation:

- I. Acids and other corrosives in wagons may be transported by all trains including passenger trains, but not to be transported in the brake van of trains.
- II. Acids and other corrosives shall be carried in covered iron wagon and tank wagons. End opening carriages or wagons shall not be used.

Storing, Labelling, Sealing and Locking of Wagons

A '**DANGEROUS**' label shall be affixed on both sides of every wagon in which acids and other corrosives are stored for dispatch or delivery or while in transit.

Precautions to be taken during shunting

Shunting of wagons containing acids and other corrosives shall not be carried out, except under the superintendence of a duly authorized officer who shall ensure that during shunting operations:

- (a) The speed of all movements does not exceed 8 KMPH
- (b) No rough hump, fly or loose shunting takes place.

Stationary Storage of Dangerous Goods

Some of the dangerous goods like HSD oil, lubricants etc. are also stored by the railways for their own consumption in diesel loco sheds, RDIs at stations, store depots etc. These places of storage of dangerous goods must have sufficient firefighting equipment's and trained man power to deal with initial phases of fire. All such locations of storage must also have the road access so that fire tenders can approach in the event of any major fire. Adequate security arrangements should be made at these locations to prevent any outside interference which may cause any untoward incident. The facilities for storage of petroleum products by the Railways should conform to the Petroleum Rules 2002 notified in the Gazette of India.

In addition to the railways own storage; there are major storage points of dangerous goods adjacent to the railway infrastructure under the private ownership. Railways should liaise with such private owners to ensure that adequate safety precautions are taken and locations are suitably guarded by them to obviate any untoward incident that might affect railway system.

Rescue Relief and Restoration Operations

Railway's expertise in dealing with the mishapenings like spillage, catching fire etc. of these dangerous goods is very limited. It is, therefore, imperative that the respective zonal railways will develop and nurture coordination with those agencies and organizations on their system that have expertise in dealing with the hazardous material being handled and transported on the respective zonal railways. Contact details e.g. Name, Designation, Telephone Nos., Mobile Nos. etc. of such agencies should be available in the divisional and zonal Railway Disaster Management Plan so that these agencies can be called for without any delay during any untoward incident. However, not to mention the least nominated staff of ARMVs, ARTs and few of the staff maintaining the rolling stock which is used for transportation of hazardous material may be trained and equipped with the equipment used for dealing with such material in the eventualities.

Chapter-14

GUIDELINES DURING BIOLOGICAL DISASTERS

Causes of Biological Disasters:-

Biological disasters might be caused epidemics, accidental release of virulent microorganism(s) or Bioterrorism (BT) with the use of biological agents such as anthrax, smallpox, etc. The existences of infectious diseases have been known among human communities and civilizations since the dawn of history.

In recent times traveling has become easier for which Railways have made a significant contribution. More and more people are traveling all over the world which exposes the whole world to epidemics. As our society is a state of flux, novel pathogens emerge to pose challenges not only at the point of primary contact but in far removed locations. The Marburg virus illustrates this. The increased interaction between humans and animals has increased the possibilities of zoonotic diseases emerging in epidemic form.

Biological Warfare (BW) and Bio-Terrorism (BT):-

The historical association between military action and outbreaks of infections suggest a strategic role for biological agents. The advances in bacteriology, biology and immunology in the late 19th century and early 20th century enabled nations to develop biological weapons. The Biological and toxin Weapons Convention, however, resolved to eliminate these weapons of mass destruction. Despite considerable enthusiasm, the convention has been a non-starter.

Mitigation:-

The essential protection against natural and artificial outbreaks of disease (bio-terrorism) will include the development of mechanisms for prompt detection of incipient outbreaks, isolation of the infected persons and the people they have been in contact with and mobilization of investigational and therapeutic countermeasures. In the case of deliberately generated outbreaks (bio-terrorism) the spectrum of possible pathogens is narrow, while natural outbreaks can have a wide range of organisms. The mechanism required however, to face both can be similar if the service providers are adequately sensitized.

Nodal Ministry and support of other Ministries:-

The response to these challenges will be coordinated by the nodal ministry- Ministry of Health and Family Welfare (MOH&FW) with inputs from the Ministry of Agriculture for agents affecting animals and crops. The support and input of other ministries like Ministry of Home Affairs, Ministry of Defense, Ministry of Railways and Ministry of labor and Employment, who have their own medical care infrastructure with capability of casualty evacuation and treatment, have an important role to play. With a proper surveillance mechanism and response system in place, epidemics can be detected at the beginning stage of their outbreak and controlled.

Handling Chemical, Biological, Radiological, Nuclear (CBRN) Disaster – Training:

For handling and to provide medical relief for all CBRN Disaster which (include a Biological Disasters) and mitigation of BW and BT affected Railway staff, need to be incorporated in the Hospital DM Plan.

Training of a skeleton numbers of Medical Doctors in each Divisional Railway Hospital to manage CBRN casualties is to be planned.

Comments on the Indian railways Disaster Management Plan by NDMA

Training of medical fraternity should be given out in a phased manner, with time lines and ultimate numbers to be trained.

Chapter-15

GUIDELINES FOR DISASTERS IN TUNNELS

In Eastern Railway there is only one tunnel in Malda Division. The salient details are shown below:-

1	Length	891' (271.5 m)
2	Location	At Km 355/11-356/1
3	Between Station	Ratanpur-Jamalpur
4	Alignment	Straight
5	Numbers of Track	Single
6	Line/Unlined	Brick masonry, HWH end: 372 feet DLI end: 106 feet
7	Gradient	1 in 600, Rising towards HWH
8	Year of construction	1861
9	Ventilation System	Not available, not required in view of the small length.

For effective Disaster Management inside the tunnel, the following action should be taken by the Division:-

- (i) Continuous lighting during day and night for speedy evacuations of passengers/restoration of work. Till the permanent lighting is provided, temporary arrangement has to be made.
- (ii) Provision of telephone communication socket at both the ends of tunnels and also at trolley refuges.
- (iii) Firefighting arrangements to be kept in Jamalpur for speedy deployment in case of need.
- (iv) Tunnel should be clear of all material and obstructions.
- (v) Provision of at least 2 trolley/ refuges inside the tunnel.
- (vi) Provision of suitable public address system.

Chapter-16

GUIDELINES FOR DISASTER DURING FIRE ACCIDENTS

In the event of a vehicle on a train caught fire, on run.

- a) The train shall be stopped, immediately.
- b) Efforts shall be made to save the lives and RMS first.
- c) Information should be given to the nearest SM/control quickly.
- d) The burning vehicle shall be isolated a distance of not less than 45 meters being left between it and the other vehicle of the train.
- e) The train shall be protected in accordance with GR. 6.03, if not protected by fixed signals.
- f) Every effort shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
- g) Earth or sand, if available shall also be used to extinguish fire in addition to fire Extinguisher and water bucket as pertaining imparted to the staff.
- h) Ordinary Fire extinguisher or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment. If the services of the Fire Brigades are required, the brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire has been made dead and earthed.
- i) If the fire is suspected to be due to electrical short circuit, the electric couplers at both the ends shall be disconnected & fuses from the battery from boxes shall be removed.
- j) In case the fire is near a tank, the Guard and Driver shall use their discretion to proceed there, but no such attempt shall be made until the portion of the train in rear of the vehicle has been detached.
- k) All available help should be mobilized to extinguish the fire.

Chapter 17

GUIDELINES FOR DISASTER DURING CYCLONE MANAGEMENT

SCOPE

The coastal areas of Eastern India come under the influence of South West monsoons and are situated along the Bay of Bengal. A large area of Eastern Railway are prone to storms, cyclones and heavy intensity of rainfall which affect the safety of travelling public and also result in disruption to traffic and communication.

DEFINITION AND CLASSIFICATION OF CYCLONES

The following are the definitions of the terms and meaning of abbreviations used in this manual -

- **I.M.D (India Meteorological Department):** It is the department under Govt. Of India responsible for, inter-alia, issue of weather warnings.
- **Regional Meteorological Centers:** These are the centers under the administrative control of the India Meteorological Department, who directly issue the weather warning telegrams on the basis of forecasts. On ER system, Regional Meteorological center is situated at Alipore, Kolkata.
- **Cyclone warning Centers (C.W.C):** It is a special establishment under the India Meteorological Department. It specializes in forecasting of development, movement and progress of cyclone on the Bay of Bengal. It is the main source of cyclone related information not only to the Railway and such other organizations, but also the Regional Meteorological Centers under the India Meteorological Department situated elsewhere.
- **First Stage Warning by CWC:** It is the warnings issued by CWC as soon as a cyclonic storm is located at such a distance from the coast that it is expected to cause bad weather during next 48 hours.
- **Second Stage Warning by CWC:** Following the first stage warning, the second stage warning is issued as soon as actual threat of cyclone over the coastal area.
- **Severe Cyclonic Storm:** When the wind speed on the strike of cyclone on land is expected to be 120 Kmph.
- **Very Severe Cyclonic Storm:** When the wind speed on the strike of cyclone on land is expected to be 180 Kmph.
- **Super Cyclonic:** When the wind speeds on the strike of cyclone on land is expected to be 220 Kmph.
- **Warning Message:** A message is issued by CWC after the cyclonic storm has adequately weakened or passed fully.

INFORMATION DISSEMINATION & CYCLONE INTENSITY MONITORING SYSTEM

Arrangements exist with the Meteorological Dept., Govt. of India for issuing telegrams of warning whenever storms, gales and heavy rainfall occur. The conditions under which warnings are issued are detailed below

- I. Amount of rainfall considered dangerous: 75 mm and above in 24 hours.
- ii. Wind velocity considered dangerous: 65 Kmph and above.
- iii. Period when warnings will be given: throughout the year.

PRE-CYCLONE SEASON PREPARATION BY RAILWAYS

Since the time available between initial warning up to the actual occurrence of cyclone and its damages/disruptions is often very short, pre-emptive action is essential to ensure adequate preparedness in terms of stores and equipment's necessary to deal with the disruptions/damages.

Pre-cyclone preparation essentially involves ensuring of adequate inventory of necessary stores and equipment's as per the checklist prepared by the respective department

STORES DEPARTMENT

The Stores Department will ensure stock of items with quantities. The locations for stocking of these materials shall be at Stores Depots of Eastern Railway which are accessible by rail as well as road.

ENGINEERING DEPARTMENT

The **anemometers** should be installed by the Engineering Dept. at strategic stations along the Eastern Railway route. These are the devices used for measuring wind speed at specified height from the ground level.

The list of materials which should be kept at strategic locations on the Eastern Railway at all times is available.

Standing arrangements on whenever-required basis should exist for the supply of adequate rake loaded with steel plants slag and quarry dust with ballast contractors.

As restoration of traffic often requires heavy handling of earth, availability of heavy earth moving machinery viz. Proclams, JCBs, Pay-loaders etc. should be identified in the city/towns along with firms/owners names, addresses and telephone numbers so as to hire and mobilize them as the necessity arises.

Standing contracts with 100% option clause may be entered into on annual basis from strategic quarry dust and boulder supply locations.

ELECTRICAL DEPARTMENT

The necessary items, quantity and locations of electrical materials to be kept as pre-cyclone measure should be available. In addition to these materials, the locations of additional generator cars should be identified in advance so that they can be requisitioned from other Divisions/Railways in case of necessity.

There should be provision of adequate quantity of HSD in case Rajdhani, Shatabdi and Duronto are stranded in the section for a considerable long time.

As per intensity of cyclone, Divisional authority will order the Running staff to lower the pantograph to avoid the damage of panto and OHE in terms SR 2.11(a) (I) and SR 2.11(a) (ii)

MECHANICAL DEPARTMENT

In case all other arrangement fails to provide potable water and engg department makes an request for Tank Wagon for supply of water to affected areas, Mechanical due cleaning made available eight wheeler tank wagon suitable for drinking water supply. These tanks shall be identified with necessary painting and made available at suitable locations for loading and movement of drinking water.

SIGNAL AND TELECOM (S&T) DEPARTMENT

The experience has shown that the communication links including terrestrial, underground and microwave severe off at the onset of cyclone. In such cases, VHF sets for short distance communication and satellite phones for long distance communication are the only means available for exchange of vital information. However, following pre-cyclone arrangements should be made:

Availability of emergency generator sets for charging of VHF equipment's at all nominated stations with adequate fuel.

The satellite phones of ARTs and Control Offices shall be kept in fully charged condition so that these can be transported to any site on short notice.

Spare 25 W VHF set complete with Battery and Antenna to the extent of 25% of total sets provided in the Divisions should be available with Sectional Telecom Supervisors.

One extra DG set along with 2 numbers of 20- liter Jerrica full with fuel should be stored on each of the locations, namely BRP, DH, NAM, CG, HNB, BNJ, BJB, RHA, BHB, KWAE, AZ, BHW, JMP, MDP at the Signal/Telecom Supervisors' store.

MEDICAL DEPARTMENT

Divisional hospital i.e. B.R.Singh Hospital/Seadah, Howrah Orthopedic Hospital, Howrah, Asansol and Malda Divisional hospitals are primarily pin pointed to keep the items which are necessary for attending diseases/victims of cyclone hit area.

The disaster management team already nominated in each division will keep themselves alert as soon as they receive weather forecast regarding cyclone.

Medical Dept. will keep adequate suitable items in stock for Medicines, Medical aids & other relevant medical items at suitable locations in all the divisions as preparedness for cyclone even during the pre-cyclone season.

These materials will be kept with CMD/CMS stores in the respective main hospitals. These are listed as below:

Sl	Name of medicines/item	Quantity
1	Injection T. Toxoid	100 ample
2	Injection Zofer	100 ample
3	Disposable 2 ml syringe	200
4	Tablet Azithromycin 500 mg	5000 no's
5	Tab. Metrogyl 400 mg	5000nos

6	Tab. Paracetamol	5000nos
7	Syrup Metrogyl	500 bottles
8	Syrup Augmentin	500 bottles
9	Syrup Paracetamol	500 bottles
10	Tab. Cetzine	2000 no's
11	Tab. Domstal	2000 no's
12	Tab. Buscopan	2000 no's
13	ORS Pouch	5000 nos
14	Cotton 25 gm.	1000 packets
15	Bandage 2 inches	500 nos
16	Bandage 4 inches	500 no's
17	Bandaïd	2000 no's
18	Mupirocin Ointment 5 mg	500nos
19	Chlorine tablet (or Zeoline drop of equivalent quantity)	100000 no's
20	Bleaching Powder	5000 kgs
21	Tab Famocid 20 mg.	5000 no's
22	Tab Voveran 50 mg.	5000 nos.
23	Cifram 500 mg.	5000 nos.
24	Syp. Augmentin 30 ml.	500nos.
25	Oint. Silverex	1000 nos.

Above materials should be kept ready along with necessary carriers so that same may be transported easily to the cyclone affected area by road/train or other means.

ACTION TO BE TAKEN 48 HOURS INADVANCE OF HITTING CYCLONE

Formation of low pressure area, its development into cyclonic storm and its tentative direction of propagation becomes known much before (well above 48 hours) the estimated time for its striking the coast. A broad assessment of anticipated severity of cyclone becomes known at least 48 hours before its strike to the coast. From this point of time, prompt action to combat the cyclone is warranted.

CHECKON THE INVENTORIES AND EQUIPMENTS OF STORES

Inventories/Stores is to be maintained by each Department on specified locations as already detailed out after initial warnings of cyclones have been received from the I.M.D/C.W.C. Each dept. will conduct checks of physical availability of items with quantities and locations as per the checklist given. The following actions are required by each Dept.:

STORES DEPARTMENT

Reviewing the stock position of items and arranging transportation of some of the relief materials to the likely affected areas before natural calamity strikes

ENGINEERING DEPARTMENT

The engineering material as stocked should be cross checked for its physical availability in full. The fitness of vehicles on which the materials have been loaded on wheel should be obtained.

Apart from this, the following action needs to be taken:

Based on the anticipated severity and warnings, the modalities for movement of materials should be planned.

The firms/owners having heavy earth moving machinery should be contacted, alerted and asked to be in readiness to hire the machines to the Railway. Movement of such machine including loading and unloading arrangements should be planned in consultation with the Traffic Branch.

A review of availability of the GI wires, Asbestos sheets, GI sheets, Tents, Service girder along with CC cribs and other incidental materials should be done by stock holders to know the availability position.

A stipulated quantity of Monsoon reserve materials is to be maintained as below:

SL	ITEM	HOWRAH	SEALDAH	ASANSOL	MALDA
1	Stone (On Wheel) Dust	30 BCx at Azimganj/Katwa 30 BCX at Nalhati/Rampurh at 30 BCX at PKR	20 BCX at Naihati	20 BCX at Sitarampur	20 BCX at Malda 20 BCX at Bhagalpur 20 BCX at Barharwa
2	Stone (on ground) Dust	-	-	-	-
3	Stone (in Contract) Dust	15000 cum	10000 cum	10000 cum	10000 cum
4	Wooden Ballah (on ground)	2500 RM at Azimganj	1000 RM at Ranaghat 1500 RM at Beldanga	1000 RM at Madhupur	1500 RM at Bhagalpur
5	Wooden Ballah Piles (Running Contract)	5000 RM	3000 RM	3000 RM	2000 RM
6	Rail Piles (on Wheel)	500 RM at Bandel	500 RM at Ranaghat	500 RM at Andal	1000 RM at Barharwa.
7	Rail Piles (on Ground)	2000 RM at Suitable Location.	1000 RM at Ranaghat	2000 RM at Sitarampur	2000 RM at Malda
8	Rail Piles (in Contract)	5000 RM	2000 RM	2000 RM	5000 RM
9	Scrap rails for Piling	2000 RM	2000 RM	2000 RM	2000 RM
10	Stone Boulder (on Ground)	5000 cum at Azimganj 5000 cum at Rampurhat	2000 cum at Barrackpore 5000 cum at Krishnanagar	2500 cum at Madhupur 2500 cum at Andal	5000 cum at Rajmahal 5000 cum at Barharwa. 5000 cum at Ratanpur
11	Stone Boulder (in Contract)	10000 cum	10000 cum	10000 cum	15000 cum
12	Stone Boulder (On wheel)	15 BCX at Azimganj/Katwa 15 BCX at Nalhati/Rampurh at	20 BCX at Naihati/ Krishnanagar	20 BCX at Simultala/ Joramow	20 BCX at Malda 20 BCX at Bhagalpur 20 BCX at Barharwa/Taljhari

SL	ITEM	HOWRAH	SEALDAH	ASANSOL	MALDA
13	EC Bag	40000 Nos.	40000 Nos.	40000 Nos.	40000 Nos.
14	Gunny Bags/Synthetic cement Bags filled with stone dust/sand (on Ground)	10000 Nos at Suitable Location	10000 Nos at Suitable Location	10000 Nos at Suitable Location	10000 Nos at Suitable Location
15	Gunny Bags/Synthetic cement Bags filled with stone dust/sand (in contract)	10000 Nos	10000 Nos	10000 Nos	10000 Nos
16	Relieving girders (on wheel)	2 Nos at Nalhati/Rampurh at (45' span)	1 No at BRI siding at Swaldah and 1 No. at BGA/Track depot (45' span)	1 No.at Sitarampur /BRI siding 1 No.at Andal	2 Nos at Sahibganj (45' span)

SL	ITEM	HOWRAH	SEALDAH	ASANSOL	MALDA
17	Relieving girders (on ground)	65'-1 No 45'-3 Nos. 32'-1 No. 26''-1 No. at suitable loadable location.	454'-6 Nos. at suitable loadable location.	45'-6 Nos. 26'-1 No. at suitable loadable location.	6 Nos. at suitable loadable location.
18	CC Cribs (on wheel)	200 Nos at Nalhati/Rampurh at	200 at Sealdah BRI siding	200 at Sitarampur/ BRI siding	200 at Sahibganj
19	CC Cribs (on Ground)	200 Nos at BRI/Howrah office 200 Nos near Howrah Railway station.	200 Nos at BRI/Sealdah office 200 Nos at Engg.Workshop, BGA	200 Nos.at BRI/Sitarampur office	400 Nos. at Malda 400 Nos. at Bhagalpur

Ref: Monsoon Booklet for the year 2014 issued by Dy.CE/BRL's letter No.W (4) 432/2 Vol.XIII dated 20.5.2013

ELECTRICAL DEPARTMENT

Check working of DG sets, stock position of HSD oil, K-Oil, position of light fittings and other materials so as to ensure that they are available in working condition at nominated depots. This should be ensured by DEE/G/AEE/G/Supervisor in-charge of their respective jurisdiction. Any shortage should be made goods. HQs control should be informed for assistance if required. Complete list of vital equipment's and consumables should be available in division controls.

MECHANICAL DEPARTMENT

The fitness of rolling stock for transportation of drinking water as well as those of ARTs, ARMEs, and ARMVs should be checked and ensured.

S&T DEPARTMENT

Communication:

- i. Check that 25 W VHF set provided at each station is functioning properly and battery is in fully charged condition
- ii. Check that emergency generator set is functioning properly with adequate fuel.
- iii. Check that fuel supply tanks of the generator sets have been full filled and adequate fuel for 72 hrs. Has been stocked.
- iv. BSNL/Railed/Airtel authority's to be alerted and close liasioning to be made for proper working of their systems for Railway circuits.
- v. Satellite phones with personnel competent to use, handle and troubleshoot shall be deputed to strategic stations.
- vi. Communication equipment in ART should be tested for proper working order.

Block working:

- I. Check all the Block Instruments and their Batteries.
- ii. Extend power supply from emergency generator set to Block Battery charger.

MEDICAL DEPARTMENT

Medical Dept. will check the availability of stock as already detailed out.

OPERATING DEPARTMENT

Sr.DOM of the concerned division's will make a rough assessment of staff and area of deployment and advice HQs and Emergency Control/Fairlie Place. The Divisional Control will also obtain the status of functioning of VHF sets and batteries/generators from each station and bring the discrepancies to the notice of Sr.DSTE.

SM of the area with the assistance of Sr.DOM of the division which is likely to be affected will ensure storage of adequate drinking water, functioning of hurricane lamps, match box, adequate availability of fuel for generator sets, functioning of VHF sets, charging of standby batteries and adequacy of first aid equipment.

ACTIVATION OF ALARMS TO STAFF & COLONY

Action by Central Control COMs Office

- i. At the HQs Office the Central Control Unit who is the recipient of the weather warning telegrams will arrange for the distribution of the message to CE, CBE, CTE, COM, CSO, CME, CEE and CSTE through their concerned departmental counter parts in central control.
- ii. Central Control should also verify with the Divisional Control that such weather warnings, telegrams / messages have been received by the Chief Controller of the concerned Division tenable them to take prompt action at field level.

Action by the Division Control Office

The Chief Controller or in his absence the Dy. Controller should immediately arrange for the weather warning telegram to be repeated verbal to the Divisional Officers as well as AENs concerned and all SMs on the section likely to be affected on the control telephone. The Controller repeating the telegram should record the name of the SM to whom the telegram has been repeated.

PREPARATION OF ACTIVITIES FOR STATIONS LIKELY TO BE AFFECTED BY CYCLONES

Diversion of Trains: Divisional/HQ Emergency Control will remain in touch and take action for diversion of trains based on the ground situation. All diversions ordered shall be advised through a bulletin to all concerned including CPRO for publicity.

In order to avoid any mishaps or damage to the passenger trains and to avoid marooning of passengers, COM or an officer acting on his behalf will issue instructions to all concerned for either cancellation or regulating the trains in times as to avoid running through likely affected areas by cyclone.

NOMINATION OF OFFICERS TO MAN THE EMERGENCYCONTROL AND WAY-SIDE STATIONS

In addition to the action taken as per the above Para by various departments, each PHOD/concerned DRM will identify and nominate the officers for opening up and manning the emergency control at short notice at HQ/Division.

Two light motor trolleys should be arranged and kept in readiness at strategic stations which should fall away from the likely affected zone. At least one officer and a few staff should be nominated for each. They should be provided with VHF sets and 1 satellite phone each so that they can accomplish the mission of physically covering the entire affected zone and give First information on damage through these equipment to the control after passage of the cyclone.

ACTIVATION OF EMERGENCY CONTROL AND NOMINATION OF STAFF OR VARIOUS DUTIES

Emergency Controls

- i. Emergency offices shall be opened in the HQ Control, Divisional Control (affected division) and important junction stations in all case of warning of super cyclone or very severe cyclone storm.
- ii. The Divisional and HQ Emergency control shall obtain every two hourly position from Meteorological Office for up to 12 hrs. before the likely time of cyclone hitting and there after every hour.
- iii. The SM shall inform Local Revenue Officers, Sub-Collectors of the area regarding the holding of trains in his station.

Relief Train

Any available rake of preferably 6 coaches of any type to be nominated and kept ready at suitable locations of all the divisions at least 24 hrs. before the cyclone is likely to hit for carrying staff, Doctor, Food, medicines and Relief materials.

Action by Commercial Department

Enquiry offices should be opened by CCM at impartment stations with public address system and information about running of trains, arrangements made for supply of food, transshipment of passengers, etc. should be repeatedly given over the public address system for the benefit of the passengers.

Engineering Department

- i. The ongoing patrolling of track shall be intensified 24 hrs. Before anticipated strike of the cyclone, the position of coastal be likely to be affected by it is likely to become clearer. The trains loaded with the monsoon reserve materials (cinders, boulders, quarry dust, empty cement bags filled with earth/sand etc.) will be ordered to run-in consultation with traffic department to the stations near to the last likely affected stations.
- ii. Empty flat wagons (BRH/BRN) will be placed at suitable sidings (preferably good platform line with ramps) to enable quick loading of earthmoving machinery.

Mechanical Department

- i. The ART/ARV/ARME/ARMV staff and crane driver will be kept alert to rush to duties at minimum notice.
- ii. The drinking water, food items (including biscuits and ration) shall be provided ready on ARTs/ARMVs. ARTs will be equipped with fuel patromax/ gas lamps & portable generator with adequate provisions for 72 hours.

READINESS OF RELIEF MATERIALS, ROAD VEHICLES & EQUIPMENT

Road Vehicles

All road vehicles including jeeps, cars, light and heavy material carrying vehicles shall be kept in readiness at the nominated Stations/Divisional offices with adequate fuel and two (roster duty) drivers' to move men/materials/equipment's at minimum notice.

Communication Equipment

As the coastal areas likely to be affected will be quite clearly then, Satellite phones with personnel competent to use, handle and troubleshoot, shall be dispatched to a strategic stations (larger among those likely to be affected).

Stores Department Items

- i. Preparations for packing, transportation & distribution of materials shall be started. The packing shall be done with water proof packing materials and easy to handle crates (manually).
- ii. Nominations of Stores Officer in HQs for coordinating the material supply activities with officer-in-charge at site/nominated officers of user department in HQs.

SECURITY

The Security personnel will be nominated by DSCs/Sr.DSCs at following positions:

- i. To accompany relief material carrying trains when ordered
- ii. To help commercial and station staff of major stations to handle public enquiries etc.
- iii. At each station where any passenger carrying train is regulated
- iv. On heavy vehicles carrying relief materials
- v. At major restoration sites after cyclone recedes & work commences

COORDINATION AT HQ, DIVISIONAL AND BOARDS LEVEL

A complete fluidity of inflow of information between HQ, Division and Board level will be the objective.

The HQs cell will keep the Rly Board cell informed and update periodically and ask for assistance from the neighboring Railways as required. It will watch inter-division movement of relief trains, restoration materials and equipment's and guide the Division in marking a plan of action for rescue, relief and restoration. It will also be responsible for documenting the developments.

The monitoring cell of the adjacent division will be responsible to ensure a complete compliance of HQ instructions as per the disaster management plan worked from their end requiring resources of the affected division. It will ensure that top priority is accorded to the relief and restoration work in the neighboring affected divisions.

ACTIONS DURING CYCLONE

Heavy devastation is often caused by the cyclonic winds and heavy down pour during the cyclone.

RELIEF AND RESCUE

The first priority, during cyclonic storm, is therefore to protect the travelling passengers in trains passing through/near to the cyclone affected zone.

Action by Traffic Department

Coaching trains should be controlled / diverted so that the trains do not enter the cyclone affected area, suitable publicity to be arranged. The controlling of trains should, as far as possible, be done where adequate water supply, lighting, catering and medical facilities are available.

Action by Commercial Department

- i. All Commercial staff should guide the passengers, whether they are on a running train or at a station when the cyclone actually strikes, regarding taking adequate measures for ensuring their personal safety.
- ii. If a train is stranded in the block section, the conductor/TTEs manning the train should take a census of the passengers, and try to pass on the information to the station at either end through the walkie-talkie sets available with the Guard/Driver of the train so that the information can be passed on to the Divisional Control Office in case no communication is available.
- iii. If any passenger is found to have injured during the cyclone, first aid should be provided by the Guard/TTEs/station staff, as the case may be. In case of injured passengers at a station, medical aid as locally available should be arranged. Wherever possible, details of such cases should be passed on to the Divisional Commercial Control.

FIRST ASSESSMENT OF DAMAGE

Motor Trolley Survey

- i. The cyclones and consequent floods, if any, do not damage the continuity of track frame even in case of breaches, washouts, erosions etc. the experience has shown that in most cases, a light motor trolley can pass through the entire cyclone affected zone (on its own power or augmented manually) without much difficulty except if the track frame itself is submerged in water.
- ii. The Officer(s) and staff nominated and in readiness, should proceed immediately after the cyclone has passed off the affected zone. Equipped with satellite phone and VHF sets, the two trolleys from either end of the affected zone should proceed through the affected zone and give precise information to control regarding the following:
 - Nature of damage/obstruction to track with location.
 - Possible method/system for restoration.
 - Resources required for restoration.

- Whether or not a light vehicle (e.g. Tower Wagon) or light engine or full relief train can pass.
- Likely time to clear the location by repairing the damage/removing the obstruction.

Manual Damage assessment

This will be carried out concurrently and independently with motor trolley survey and will not be called till completed, to give corroborative information.

By Boats

In circumstances when substantial portion of track get in undated under water, boats shall be hired locally to navigate across the water body and assess the damage.

MOVEMENT OF RELIEF TRAIN FOR RESCUE, RELIEF AND RESTORATION

On receipt of first information of super cyclone having passed the coast, after assessment of the damaged railway property or assistance required all the relief trains on the section must be ordered and should be started with full complement of men, equipment and materials. The movement of relief train shall not wait for receipt of detailed report from site. The staff required to move on these trains shall be accommodated on the train itself and should not be allowed to come back home. This may involve organizing supply of food from local sources for staff that has to remain on the relief trains for long hours.

These trains will move up to the neck of the affected zone in normal course. Thereafter, the trains will move forward in such a way that the section in the rear is cleared of all physical obstructions to the moving dimensions. It will leave each station after confirming on VHF by the SM with the adjacent station that no breaches/washouts have occurred on that section.

MOVEMENT OF RELIEF MATERIALS AND RESTORATION

Engineering Department

Based on damage report and restoration strategy, priority and sequencing of movement of available materials on wheels (e.g. buld fillers, earth moving machinery, bridge girder etc.) and labor should be quickly chalked out by Engg. Dept. and conveyed to the traffic personnel at Central Control and respective divisional controls.

Electrical Department

- Restoration Work: The damage caused to electrical installations is to be assessed location-wise. For this purpose, competent officials shall be deputed to obtain detailed assessment of the damages. Supervisors and staff should be deputed with necessary materials and tools either by Rail or by Road for immediate restoration work.
- In case of power failure at stations where trains are controlled, temporary lighting may be arranged with portable DG sets or through patromax lights.

Stores Department

During restoration, Stores Dept. shall play a pro-active role in making emergency purchases preferably by standing Spot Purchase Committee and supplying the same to the user departments at sites.

Formation of standing Spot Purchase Committee will be as below:-

I. Division:-

- a) Dy.CMM/DMM
- b) DFM/Sr.DFM
- c) DEN (To be nominated by DRM)

II. Headquarter:-

- a) Dy.CMM/G
- b) Dy.FA& CAO/S&W
- c) Dy.CE (PCE to nominate)

Chapter-18

CLEARANCE BY STATE POLICE IN CASE OF RAILWAY ACCIDENTS DUE TO SUSPECTED SABOTAGE

(Director/Crime Prevention /Railway Board's letter No.2002/SEC (CR)/45/47 dated 27-3-2003 to all General Managers.)

Ref: Ministry of Home Affairs' letter No. VI-24022/11/2002-PM-1 dated 24-12-2002 addressed to Home Secretaries of all States.

1. The issue of expeditious clearance by the State Policy in case of Railway Accidents where sabotage is suspected has been engaging Ministry of Railway's attention for a long time. It is noticed that sometimes rescue operations are hampered due to delayed and reluctant clearance by the State Police.
2. It is pertinent to mention that there are two different tasks to be accomplished on war footing after a Railway accident involving human lives is concerned i.e. (a) Quick rescue operation & (b) Restoration of Rail traffic. It is clarified that in case of Railway accident, permission of State Government or clearance of the Police is not required for launching rescue operation for the purpose of saving human lives which inter-alia may also involve handling/shifting the rolling stock (locomotives, wagon and coaches) for extricating the trapped passengers. However, Police clearance is required for restoration work at the site of accident, if sabotage is suspected.
3. To avoid any delay in launching the rescue operation for saving as many human lives as possible and for early restoration of Rail traffic, the above issue have been taken up with the Ministry of Home Affairs. Consequently, Ministry of Home Affairs vide their IBID have directed the Home Secretaries of all States to issue suitable instructions to the concerned authorities for taking prompt action and to expedite clearance certificate in the event of a Railway accident, when sabotage is suspected.
4. The contents of this letter may be widely published among the Railway Officers/staff and displayed in all ARTs/ARMEs so that a general awareness created amongst all those engaged in rescue activities.
5. The letter supersedes the Railway Board's letter of even No. dated 07-2-2003.

Chapter-19

DUTIES OF RAILWAY PERSONNEL IN THE EVENT OF A SERIOUS ACCIDENT

Extracts of Accident Manual

	ACTIVITY	ACTION
	OPERATING DEPARTMENT	
1	Reporting of accident	
1.1	Guard : Immediately after an accident to a train	Act as per rule No. 3.02 of Accident Manual.
1.2	Engine Crew: after an accident to a train	Act as per rule No. 3.03 of Accident Manual
1.3	Station Manager of both sides of the affected section and Controlling Station Manager: Immediately after getting the information	Act as per rule 3.08 of Accident Manual
1.4	Section Controller : On getting the information,	Act as per rule 3.15 of Accident Manual.
1.5	Chief Controller / Dy. Controller : On getting information from Section Controller,	Act as per rule No. 3.16 of Accident Manual.
1.6	Safety Officers of the Division : On getting an accident information	Act as per rules 3.14 of Accident Manual.
1.7	Officer-in-Charge of Control Office :	Act as per rule 3.20 of Accident Manual
1.8	Head Quarters Emergency Control	Act as per rule No. 3.24 of Accident Manual.
2	ELECTRICAL DEPARTMENT	
2.1	Traction Power Controller	Act as per rule 3.18 of Accident Manual.
2.2	Traction Loco Controller :	Act as per rule 3.19 of Accident Manual.
2.3	Divisional Electrical Officers :	Act as per rule 3.21 of Accident Manual.

3	MECHANICAL DEPARTMENT	
3.1	Power Control: On getting information of an accident.	Act as per rule 3.17, 5.10 and 5.18 of Accident Manual.
3.2	Divisional Mechanical Officers : On getting information of an accident	Act as per rule 3.22 of Accident Manual.
3.2.1	i) Calling of Relief Train	Act as per rule No. 5.08 of Accident Manual.
3.2.2	ii) Assistance required	Act as per rule No. 5.09 of Accident Manual.
3.2.3	iii) Dispatch of R.T & M V	Act as per rule No. 5.11 (A) of Accident Manual.
4	ACCIDENT MANAGER: Senior most railway personnel present at the site of the accident shall be designated as Accident Manager.	Act as per rules 3.06 and 3.07 of the Accident Manual
4.1	RESCUE OPERATION :	.
4.1.1	By Mechanical Officers	Act as per rule 3.22 (v) of Accident Manual
4.1.2	By Medical Officer	Act as per rule 3.22 (v) of Accident Manual.
4.2	RELIEF OPERATION:	Act as per rule 3.10 of Accident Manual
4.2.1	By Commercial department Divisional Commercial Officers and others	Act as per rule No. 3.11 of Accident Manual
4.2.2	By Medical Department Divisional Medical Officer	Act as per rule 3.10 of Accident Manual.
4.2.3	By Security Department	
4.2.3.1	Security Officers	Act as per rule 3.09 of Accident manual
4.2.3.2	Crowd control: Divisional Security officers	Act as per rule 3.09 of Accident Manual.
4.2.3.3	State Police Clearance and restoration: Security Dept.	Act as per rules Nos. 3.09 and 5.23 of Accident Manual
4.2.4	By Telecommunication Department: Divisional Signalling and Telecom. Officers	Act as per rule 3.13 of Accident Manual
4.3	RESTORATION OPERATION	
4.3.1	By Personnel Department	Act as per rule No. 3.12 of Accident Manual.
4.3.2	By Mechanical Department: Division	Act as per rule 3.22 of Accident Manual.

4.3.3	By Electrical Department: Division	Act as per rule 3.21 of Accident Manual.
4.3.4	By Engineering Department: Division	Act as per rule 3.23 of Accident Manual
4.3.5	By S&T department : Division	Act as per rule 3.13 of the Accident Manual.
5	MAINTENANCE OF SITE EQUIPMENT	
5.1	Maintenance of SPART / ART and ARMV Rolling Stock / BD Crane including Rail cum road and road mobile emergency vehicle:	Act as per rule No. 5.21 of Accident Manual.
5.2	Maintenance of equipment's in SPART / ART / ARMV - Mechanical Dept., Medical Dept., Engineering. Dept., Electrical Dept., S&T Dept.,	Act as per rule 5.21 of the Accident Manual.
6	MEDIA MANAGEMENT AT SITE: Checklist of the Officers and Supervisors :	Accident Manager shall be the chief spokesman at the site.
7	FIRST OFFICER REACHING THE SITE OF ACCIDENT	(I) He will ensure protection to the line / lines. (ii) Attention to the injured should be on top priority. (iii) Sufficient number of First Aid Box in train and from the stations shall be arranged for rendering relief to the injured. (iv) He will arrange for security of luggage. (v) He will take steps for preservation of clues indicating cause of accident
8	CHECK LIST OF SENIOR-MOST OFFICER AT SITE	At the site of the accident shall be designated as Site Manager and will act as per Accident Manual Para 3.06 and 3.07.
9	DIVISION CONTROLLED ORGANISATION	Division controlled organization will act as per Accident Manual Rule No. 3.20.
10	HEADQUARTERS CONTROLLED ORGANISATION	Headquarters controlled organization will act as per Rule No. 3.24.

I) DUTIES OF GUARD:

Immediately an accident to a train takes place, the Guard of the train shall

- i. Note the time of accident and km.
- ii. Arrange to protect adjacent line/lines, if necessary, and then the line on which the accident has taken place.
- iii. Send information through quickest means to Control / SMs on either side.

- iv. Take action to save lives, render first aid.
- v. Call for doctors on the train and seeks their assistance.
- vi. Seek assistance of Railway men on the train for attending the injured and other relief operations.
- vii. Post Railway employee to man the field telephone to ensure regular flow of information to Control.
- viii. Make quick assessment of the assistance required and advice control or nearest Station Master.
- ix. Preserve and safe-guard all clues indicating cause of accident.
- x. Arrange protection of property of Passengers and Railway property with the assistance of RPF, GRP and other Railway staff.
- xi. Take action as detailed out in paragraph 4.04 of Chapter IV Accident Manual in case of suspected sabotage.
- xii. Assist the Accident Manager in every possible way. He shall not leave the site of accident without the permission of the Accident Manager.

II) DUTIES OF ENGINE CREW:

Immediately after an accident takes place, the Engine crew shall

- i. Protect the adjoining line/lines and the front portion of the train as prescribed in General and Subsidiary Rules 6.03 taking the assistance of any qualified staff, if available at the site.
- ii. Take such technical precaution as may be necessary or as prescribed by special instructions to render his locomotive safe.
- iii. Manager in relief measures to the injured and particularly in the assessment of damage to the Rolling Stock or locomotive and the nature of assistance required.
- iv. Take action as detailed in paragraph 4.04 of Chapter IV of Accident Manual in case of a suspected sabotage.
- v. Take action to stop train passing on the other line by means of red hand signal, flasher light etc. in case of double / triple / quadruple section.

III) DUTIES OF THE ACCIDENT MANAGER:

Relief operation will be organized immediately for which Accident Manager shall

- i. Collect Railway men, Volunteers, Doctors and First-Aiders.
- ii. Allot duties to Railway staff, police, military and the security staff present at the site and fix the priority of tasks.

- iii. Arrange rescue of passengers from the affected coaches and render First-aid and medical assistance.
- iv. Arrange evacuation of the injured by the fastest available means to the nearest medical center, if necessary, by hiring private transport, the payment of which will be made from the station earnings.
- v. Ensure with the help of available staff and volunteers that belongings of the affected passengers are safely preserved of further disposal.
- vi. Ensure that authentic and correct information is passed on to the Control promptly to avoid any controversy.
- vii. Pay attention to the needs of passengers involved / stranded due to the accident such as, drinking water, tea, snacks, food / food packet etc. at Railway's cost to be paid from station earnings.
- viii. Maintain telephone contact with the Divisional Headquarters and depute necessary officers / staff for this purpose.

IV) DUTIES OF THE SENIOR MOST OFFICER OF THE DIVISION:

On arrival of the Divisional Officers, the senior most Officers shall take over the responsibility of the Accident Manager. In addition to continuing the activities mentioned under 3.06, he shall -

- i. Co-ordinate and supervise the work of staff of various Departments in relief and restoration activities. For this purpose a relief station should be started close to the site with warlike talkie communication facilities with the person in-charge of all the various functions, such as, Medical, Civil Engg., and Mechanical Engg. etc. at the site.
- ii. Ensure that proper communication facility is set up by the senior most officers of the Signal and Telecom. Department with the Control and arrange relay of all relevant information from time to time.
- iii. Arrange install a P&T Telephone with STD facilities, if possible, by the senior most officers of the Signal and Telecom Department from where the passengers are to be permitted freely to talk to their friends and relations. If that is not possible, message from passenger to their friends and relations should be communicated through the Control office.
- iv. Ensure that the Railway Doctors have taken over complete charge of treatment of the injured and have prepared the list of casualties indicating their names, addresses and nature of injury and have this information relayed to the Control. In case of any death, identity has to be established and the relatives are to be informed. If the entire picture is not available at a time, information may be relayed in installments.
- v. Arrange shift quickly the injured to the nearby hospitals, health centers etc. The entire expenditure on transport and treatment is to be borne by the Railways.
- vi. Make an assessment of the extent of damage, probable detention to traffic, assistance required and prima-facie cause of the accident and depute officers and staff for specific duties.

- vii. Ensure that Officers / Supervisors of Commercial Department make all arrangements for transshipment of passengers and their luggage in case of necessity and payments, if necessary, be made from station earnings. Road transport when used for transshipment of passengers, payments will be made from the station earnings.

V) DUTIES OF STATION MASTERS OF BOTH THE SIDES OF THE AFFECTED SECTION /CONTROLLING STATION MASTER:

Station Masters of both sides of the affected section/Controlling Station Master shall.-

- i. Ensure that no other train enters into the affected section. On double line, commentators of the block instruments controlling affected section should be locked in Train on Line position whenever possible.
- ii. Advise the control immediately of the accident indicating the nature of medical aid and other assistance required and record the time of first information received in the Station Diary. If the station is not on controlled section or if the control telephone is in operative, they must relay the information by any other means, such as, CUG, if available at Station, BSNL telephone, available either at station or nearby, message through the staff of outgoing train if any, or any light engine if available, or any other means.
- iii. Collect as many staff as possible (Except essential train passing staff) either on duty or off duty, local doctor's including private practitioners on payment, non-railway porters, if available at the station on payment and rush to the site of accident for assisting in rescue operation. He will use any means of transport available including Push Trolleys or private road transport, on hire, a light engine, if available, or an engine detached from a train, etc. For the payment to the porters, private medical practitioners and also for the hiring of the vehicles, as mentioned above, he will withdraw cash from station earnings. He will collect and carry with him as much as drinking water as possible. He will distribute the Arm-bands for identification to all the Railway men accompanying him to the site.
- iv. Remain on duty at the site for taking orders from the Control and the Accident Manager till relief and restoration work are completed or till the Accident Manager permits them to return to their Stations.
- v. Calling of Relief Train (para 5.08 of Accident Manual) : - On receipt of advice of the nature of medical and other assistances required in an accident, the Deputy Controller or, on a non-controlled section, the terminal Station Master connected to control or the Station Master of the Relief Train stabling station, will call for the Relief Train.
- vi. Assistance required (para 5.09 of Accident Manual):-
 - a) The nature of assistance required must be stated according to Relief Train, Relief Van and Train Examiner.
 - b) If a Steam Crane (30 ton/40 ton) is required, this should be included in item (a), since no 30/40 ton steam rail crane is available, available crane should be arranged.
 - c) The Relief Train is only to be called for when a running road is blocked in any manner necessitating the employment of a Relief Crane and Van to clear the road. Stationmaster should state the nature of the work required to be done and also give the number and class of rolling stock to be dealt with.

Note: -Particular mention must be made as regards the nature of medical assistance, if required.

- d) The Relief Van - when an engine is derailed in a Siding and is not blocking a running road.
- e) The Train Examiner is to be called for when a wagon or passenger coach is derailed in a Siding and is not blocking a running road. This does not apply to stations where special accident gangs have been provided in the Loco Sheds, and the Loco Foreman of such stations should be called for instead, in such cases. Divisional Railway Manager will advise their staff locally the names of stations where special accident gangs are posted.

VI) DUTIES OF SECURITY OFFICERS:

SrDSC/ DSC with ASC and RPF staff will rush to the site of accident. Instructions by designation with alternatives to cover the absence of any officer in this respect may be issued by DRM. At the site, the Security Officers are to report to the Accident Manager and shall -

- i. Assist in the matter of relief and restoration work.
- ii. Ensure that all wreckage and debris are untouched until the enquiry / investigation is completed. In the case of an accident due to explosion, the materials should be kept intact except in so far as their removal maybe 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 enquiry.
- iii. Arrange contact local GRP or Civil police to ensure that the accident has also been reported to them.
- iv. Cordon the area from public to ensure that the relief operations are not interfered by the crowd.
- v. Look after the luggage and belongings of the passengers of the ill-fated train. They should take control of the site for protecting unclaimed property and Railway property.
- vi. Preserve all clues and obtain clearance from the civil police for starting restoration work.
- vii. Keep liaison with the GRP, Civil police and Medical Officers for disposal of dead body, if any, etc.
- viii. Proper co-ordination at the level of Sr. DSCs/ DSCs for immediate **Police attendance** at the accident site and to preserve clues and avoid malicious tampering of the clues, to tackle law and order situation, safe guard passenger belongings, guarding of medical teams providing medical relief, etc. to be ensured.

VII) DUTIES OF MEDICAL OFFICERS:

DRM shall issue separate instructions nominating the Medical Officers visiting the site of accident and those who shall remain at Divisional hospital as per priority list.

Medical Officers nominated for the site shall

- i. Rush to the site of accident by quickest means. Accident Relief Medical Van / Road Medical Van are to be dispatched immediately as laid down in para 5.10 and 5.11 of Accident Manual
- ii. Take over complete charge of treatment of the injured passengers. If non-railway doctors are already attending the injured at the site, co-ordinate their activities so as to ensure that the best medical treatment is given. Render First-Aid to as many injured passengers as possible immediately at the site with the help of other First Aiders, trained persons available at site.
- iii. Set up a temporary field dressing room, if required, by making use of any accommodation belonging to the Railway, for example Refreshment room or Waiting room or Retiring room, etc.
- iv. Decide quickly the medical centers where the injured persons are to be shifted and-ordinate with the Accident Manager to make arrangement for shifting.
- v. Assess the help or assistance required from Divisional Headquarters, neighboring Divisions or Railway / non-Railway hospitals and arrange to inform them quickly about the assistance required.
- vi. Visit hospitals and other medical centers where the injured persons are admitted to see their progress and relay this information to Divisional Control as well as HQ Emergency Control. Cost of treatment for the victims taken to the hospitals (Railway or non-Railway) Medical Centers etc. is to be borne by the Railway.
- vii. Prepare a list of casualties indicating the name, age, sex, nature of injury, classification of injury i.e. grievous or minor etc. Address, telephone numbers, if any. Regarding the death, the details, such as, name and address has to be established in co-ordination with the Commercial Officer at site including photographs of the deceased.
- viii. Report in detail the progress of relief work to the Divisional Control as well as HQ from time to time.
- ix. Dead bodies at the site of accident should be handled with dignity and respect and proper arrangement should be made for keeping such bodies at the site covered with white sheets before their final disposal. Photographs of non-identified bodies should be taken. Dead bodies are to be shifted from the site and handed over to the Civil Police authorities as quickly as possible with a memo. All assistance to be provided to the police including the cost for shifting the dead bodies from the site of accident.

VIII) DUTIES OF COMMERCIAL OFFICERS:

On getting the information of a serious accident, Sr. DCM with nominated Commercial Officers and Commercial Inspectors will rush to the site and DCM/ACM will remain posted in Control Office. Instructions by designation with alternatives to cover absence of any officer in this respect may be issued by DRMs.

Commercial Officer at the site shall -

- i. Render all assistance to the Accident Manager in rescue and relief operation to the injured persons and look after the needs of all passengers. The duties of the Commercial Inspectors and other Commercial staff available at site will also be allotted by him.

- ii. Arrange supply and distribute food, snacks, beverage, and etc. Free of cost to all the passengers. These items are to be rushed from various stations and for ensuring timely and adequate supplies, he should liaise with the Commercial Officers deployed at the Control Office.
- iii. Watch that the catering staff traveling in the train or working at the site of accident or any other person supplying food, beverage etc., do not exploit the stranded passengers taking advantages of the situation.
- iv. Co-ordinate with the Railway doctors and compile the list of casualties indicating their names, addresses, nature of injury, age, sex etc., and have the information relayed to the Commercial Officer deployed at the Control for onward dispatch.
- v. Arrange send immediate messages to the relatives of those killed as also the injured either directly, if possible, or through the Control, and receive messages from the relatives and friends of passengers killed/injured.
- vi. Ensure withdrawal from station earnings for meeting expenses at the site of accident.
- vii. Arrange for ex-gratia payment to the injured passengers and relatives of passengers died.
- viii. Arrange adequate transport, porters and Commercial staff to transship the luggage of the marooned passengers. Similar arrangement for transshipment of parcel which have been unloaded should be recorded with full details and arrangement of safe custody should be made.
- ix. Inform Commercial Officer in Control for necessary liaisons with State Transport Authority in case of the marooned passengers are to be transported by bus.

Commercial Officer deployed at the Control shall -

- i. Arrange & send drinking water, food snacks, beverage, etc., at the site from other stations.
- ii. Arrange relay the list of casualties including the names, addresses, age, sex, nature of injury, etc. as received from the Commercial Officer at site to the Emergency Control at the HQRS, adjoining Division/Railway over which the train was scheduled to run, the terminals and the stations where the train was scheduled to stop.
- iii. Co-ordinate with the Commercial Officer at site and arrange any other assistance required.
- iv. Co-ordinate with the Chief Public Relation Officer and supply all information required by him.
- v. Arrange for opening of Enquiry Offices at terminal stations well as at important stations enrooted manned by additional staff to Announce details of train(s) cancelled/diverted/terminated short of destination, Exhibit the list of injured and passengers died and the hospitals to which they have been admitted and Arrange for transport of marooned passengers, if asked for.
- vi. Arrange for opening of counters at important stations for refund.
- vii. Arrange for ex-gratia payment to the injured passengers and relatives of passengers died who have not been paid by the Commercial officer at site.

IX) DUTIES OF PERSONNELOFFICERS:

On getting information of a serious passenger train accident, the Sr.DPO/DPO with nominated Personnel Officers and Welfare Inspectors of the division will rush to the site. The DPO/nominated APO will go to the control office. Instructions by designation with alternative arrangements to cover the absence of any officer may be issued by the DRM.

Personnel Officers at the site shall

- i. Render all possible assistance to the Accident Manager in rescue and relief operation of the injured persons and look after the need of the passengers, as directed by the Accident Manager.
- ii. Try to obtain written statement with names and addresses of independent witnesses, who may volunteer to give the same on their own regarding the accident and then pass on the information to the Accident Manager. This action, however, should not interfere with (I) above,
- iii. Keep liaison with the Commercial officers at the site and assist them for collection of names, addresses, nature of injury of the casualty and communication of the details to the control office. From the control office the relatives of the affected passengers, who are Railway men, should be advised by the DPO/APO, if necessary, by deputing Welfare Inspectors. As regards non-railway passengers affected in the accident, the Personnel officers will give necessary assistance to the Commercial officers in advising the relatives, etc.
- iv. Assist doctors in the hospitals for arranging medicine etc., to the injured passengers as per request made by the doctor-in-charge, till the injured persons are discharged from the hospital,

- v. Assist officers of the Commercial department for payment of ex-gratiato the injured and relatives of the dead passengers and will also keep an account of all payments made,
- vi. Make arrangements for issue of necessary passes as per rules mentioned in 5.34 of Accident Manual to the relatives of the dead/injured passengers.

X) DUTIES OF SIGNAL AND TELECOMMUNICATION OFFICER:

On receipt of information of a serious accident, the Sr.DSTE with his Inspectors will rush to the site of accident and a DSTE/ASTE will go to the Control Office. Instructions by designations with alternative arrangements to cover absence of any Officer may be issued by DRM.

The Telecommunication Officer visiting the site shall

- i. Render all assistance to the Accident Manager in rescue operation.
- ii. Ensure installation of a Railway 'phone and a BSNL telephone if possible with STD facilities. A register should be opened to log the nature of calls made, duration, etc. in case of installation of a BSNL phone with STD facilities.
- iii. Depute one inspector for manning the telephones till full restoration has been achieved.
- iv. Arrange connection with the required person.

XI) DUTIES OF THE SAFETY OFFICERS OF THE DIVISION:

Sr.DSO/DSO with Safety Counsellors and TIs will rush to the site of accident. DRM shall issue separate instructions as per priority list in case SrDSO/DSO is out of station. They are to report to the Accident Manager and shall

- i. Assist in the matter of relief and restoration work.
- ii. Try to find out the cause of accident and should also preserve the clues, if available on the accident for future enquiry.
- iii. Keep constant touch with all other Departmental officers at the site and relay progress report frequently to the Divisional Control office for onward transmission to the HQ and Railway Board.
- iv. Collect the following important information with the assistance of other inspectors present -
 - a) The condition of the track, with special reference to alignment, gauge cross-levels, curvature, super elevation and rail head wear.
 - b) The condition of rolling stock with special reference to brake power.
 - c) The position of block instruments, signals, points, point levers, indicators and keys. Any signal, Brake van or disc signal lamps, if not alight during darkness, should, when possible, be opened to ascertain if there is a burner and kerosene oil inside and the temperature felt by hand to ascertain if it was alight shortly before
 - d) Mark on sleepers and rails.

- e) A rough sketch showing the position of derailed vehicles, marks on sleepers etc. should be made where possible.
- v. Seize the Station Signal Register, Private Number Sheet, the Line Admission / Departure Book and relevant records. If the accident has occurred within a station yard, also record the names of the persons in whose possession each Line-badge, if in use, was and obtain statements of station staff concerned, if necessary.
- vi. Note the position of detached or broken parts of permanent way or rolling stock and secure these parts for production at the enquiry and preserve similarly sleepers and rails bearing marks of wheels, especially between points of mount and drop. If, however, the accident is suspected to be the result of sabotage, none of these objects must be disturbed until a thorough examination by police (please see Chapter – IV of Accident Manual) containing instructions in case of sabotage).
- vii. Arrange taking of photographs of important features in all cases of very serious accidents especially when sabotage is suspected. Photographs showing the position of derailed vehicles, loose permanent way and engine fittings, dents on rails, etc. are very useful in facilitating the Enquiry Committee to arrive at the cause of the accident.

AOM(S) of the Division should rush to the Control and shall -

- a) Collect the detailed report of the accident and relay the same to the Hqrs.
- b) Keep constant touch with SR.DSO/DSO / Accident Manager at site and relay the progress report whenever available to the Headquarters.
- c) Open a Log Book in the Control Office for keeping the details of the accident and progress report.
- d) Chase the assistance required from the site in consultation with other Departments.

XII) DUTIES OF SECTION CONTROLLER:

When a Section Controller is informed of a serious accident on his section, he shall -

- i. Apprise the Deputy Controller of the available particulars of the accident and the nature of assistance required.
- ii. Arrange for a clear passage of the Medical Van or Breakdown train giving them precedence over all other trains.
- iii. Advise the Transportation Inspector and the Controlling Station Master to proceed by first means to the site of the accident.
- iv. Obtain further details with regard to the extent of damage so that necessary permanent way fittings etc. Can be transported to the site of the accident.
- v. Obtain from a responsible official at site the time that is likely to be taken for clearing and repairing the permanent way so that time by which the line will be available for traffic can be assessed.

- vi. Regulate trains on the section as required, keeping loop lines clear on either side of the affected section for break down and evacuation operations.
- vii. Arrange for quick passage of the Tower Wagon / Motor Trolley with similar preference like the break down train in the event of their being required at the site of the accident.

XIII) DUTIES OF CHIEF CONTROLLER / DEPUTY CONTROLLERS:

Each Division will specifically define the duties of the Chief Controller/Dy.Chief Controller by designation so that all the activities mentioned below are done simultaneously without any loss of time. The Chief Controller/Dy.Chief Controller on duty on receipt of information of a serious accident, shall -

- i. Order Medical van and the Accident Relief Train. In case the site of accident is close to the jurisdiction of adjoining Division, Medical Van and ART of that particular Division should be requisitioned immediately.
- ii. Inform immediately the Medical Supdt. And also the on duty officer of the Emergency ward of the hospital.
- iii. Arrange for dispatch of the Medical Van within 15 minutes on receipt of the information directly from a double exit siding (within 25 minutes from a suitable running line in case of single-exit siding), reckoning these targets from the time the Medical Van is ordered, and shall also ensure that the Relief Train is called for immediately and that it leaves the shed within the target time of 30 minutes during day and 45 minutes during night.
- iv. Ensure that the Accident Relief Train and the Medical Van is given precedence overall other trains.
- v. Take assistance from other Controllers/ Dy. Controllers for relaying the information quickly and simultaneously to the following officers in order of priority.
 - DRM
 - ADRM
 - SR.DSO/DSO
 - Sr.DOM
 - DOM
 - AOM(S)
 - AOM
 - TI Emergency) /Hqrs.
 - Power Control
 - Traction Power Control
 - Carriage Control
 - Engineering Control
 - Commercial Control
 - Security Control
 - GRP
 - Local Administration (Civil and Police)
 - S&T Control
 - Traction Loco Control
- vi. The Control of the concerned Department will in turn inform their officers immediately. In case of non-availability of any Departmental Controller, Chief Controller or Dy. Chief Controller

should give the information to the officers of that branch. In case the site of accident is closed to the Hqrs ART Depot or ARME Depot, DRM, ADRM, Chief Controller of that Division should be informed of the fact of the accident and the assistance required immediately.

- vii. Advise the Transportation Inspector and the Controlling Station master to proceed to the site of the accident by first available means.
- viii. Regulate the traffic correctly in either side of the site of accident. Goods trains are to be stabled as far as possible and Passenger Trains are to be detained at stations having facilities for supply of food and drinking water.
- ix. Inform the passengers at the starting station through Public Address System timely regarding all changes in train timings and diversion or cancellation of trains, if any.
- x. Intimate timely to the adjacent Divisions and concerned Railways regarding the accident and the change in traffic pattern.
- xi. Advise RMS authorities in the event of train carrying Mail involved in accident.
- xii. Assist the Sr. DOM/DOM or the officer who takes charge of the Control Office.

XIV) DUTIES OF POWER CONTROLLER:

Power Controller on receipt of the information of an accident, shall –

- i. Inform departmental Divisional Officers immediately.
- ii. Ensure turning out of the Medical Van and Relief Train promptly within the target time.
- iii. Inform subordinate staff concerned in time to proceed to the site of the accident by the Medical Van/Relief Train.
- iv. Arrange/ regulate the power of trains judiciously and systematically to avoid unnecessary detention.
- v. Arrange relief to the running crew engaged in relief operation at the site of accident.

XV) DUTIES OF THE TRACTIONPOWER CONTROLLER:

- i. The Traction Power Controller, on receipt of information of an accident on the electrified section, shall -
- ii. Switch-off the affected section. In case of multiple line section, switch off the adjacent lines also till the issue of Caution Order on adjacent lines is confirmed (As per ACTM Paragraph 0723 amended - 1980).
- iii. Inform Departmental officials and concerned subordinate staff immediately.
- iv. Take necessary steps to turn out the Tower Wagon and emergency road vehicles immediately, if required.
- v. Adopt necessary measures for de-energizing and slewing the overhead equipment's, wire for crane working.

- vi. Arrange power block, as necessary, for clearing operations.

XVI) DUTIES OF THE TRACTION LOCO CONTROLLER:

The Traction Loco Controller, on receipt of intimation of an accident on the electrified section, shall -

- i. Inform Departmental Divisional Officers including TLC/HQ immediately.
- ii. Assist promptly in arranging electric loco for running the Medical Van and Relief within the targeted time of arrangement given by the Dy. Controller.
- iii. Inform SLI/LI and CTF(R) immediately. One of the senior SLIs/LIs to accompany the Medical Van / Relief Train to the site of the accident.
- iv. Arrange / regulate the Electric train judiciously and systematically in consultation with the Dy. Controller to avoid unnecessary detention.

XVII) DUTIES OF THE OFFICER-IN-CHARGE OF THE CONTROL OFFICE:

The Sr. DOM (T), DOM, AOM (T) and AOM(S) will rush to the Control office immediately on being informed of the accident. Sr. DOM or in his absence the DOM will become in charge of the Control office who shall -

- i. Set up immediately an Emergency Control manned by at least an Asstt. Officer in each shift. A Chronological Log Book will be opened. For proper maintenance of the Chronological Log Book, please see note below.-
- ii. Keep in touch with the Accident Manager at the site of the accident; ascertain any assistance that is required at the site and making arrangement for it.
- iii. Pass on any supplementary information regarding the accident or clearing operations to the Emergency Control of Headquarters
- iv. Regulate traffic by diverting or canceling the trains, running duplicate trains or restricting booking or arranging for transshipment or diversion, as circumstances may require, after obtaining reliable information from the site about the probable detention of traffic.
- v. Assist SR.DSO/DSO at the site by sending AOM (T) / DOM to control train movement.
- vi. Keeping touch with COM/CSO/CPTM regarding progress made at the site of accident.
- vii. Maintenance of Logbook: In the log book left side of the pages should be earmarked for incoming message / information, the right side for outgoing message. For the incoming messages / information, Sl. No. Time, Message received from (both name and designation) recorded by (both name and designation) are to be recorded. It should be specially noted that information received from the site will not be in form of messages; however, while recording them care should be taken about the details as outgoing messages may be formed on the basis of such incoming information. For the outgoing messages, similarly, Sl. No., Time, relayed to (both by name and designation) and message given by (both by name and designation) should be carefully recorded. If the same message received from some sources has to be repeated to some other, the entire text of the message need not be copied on the outgoing side; only a reference to be made, such as, Item No. so and so of incoming

message. This procedure should be carefully observed particularly in giving messages to other Railways and the Railway Board to whom all information communicated shall be in message form only.

XVIII) DUTIES OF THE OFFICERS OF ELECTRICAL DEPARTMENT:

- i. Sr. DEE, Sr. DEE (TRS) and Sr. DEE (TRD) should rush immediately to the site of the accident with their Inspectors and report to the Accident Manager and assist him in all respects. One DEE/AEE will remain in the Control Office to maintain co-ordination with the site. Instructions by designation with alternate arrangements to cover absence of any officer will be issued by DRM. Sr. DEE should ensure that proper lighting arrangements, if required, are made at the site of the accident.
- ii. In case of an accident where OHE or switching station is involved, Sr. DEE (TRD) should ensure that Tower Wagon / wagons with adequate number of breakdown staff reach the site of the accident by quickest means and OHE is made dead for ground operation.
- iii. The line is not to be reopened for traffic until an Electrical Foreman or a responsible officer of the Electrical Department intimates in writing to the Station Master or Sr. Traffic official present at site that the line is safe for passage of trains.
- iv. In case of any Electrical Loco or Electric Multiple Unit stock is involved, they should take all precautionary measures, as necessary.
- v. If required, measurement of such damaged stock should also be taken jointly with other concerned Departments.

XIX) DUTIES OF THE OFFICERS OF MECHANICAL DEPARTMENT:

- i. Senior Officers of both Power and C&W Departments should rush to the site of accident and report to the Accident Manager and assist him in all respects.
- ii. One DME / AME will go to the Control Office. Instruction by designation with alternative arrangements to cover absence of any officer will be issued by DRM.
- iii. Senior Officer of the Power Branch should note down his observations regarding the measurements and other details of the loco and supervise the working of crane.
- iv. Senior Officer of the C&W Department should record the details regarding the brake power and other aspects of Rolling Stock and note down the measurements of the Rolling Stock as well as the track jointly with the Engineering Department and ensure the fitness of stock to be moved out of the accident site.
- v. Senior most officer of Mechanical Department is responsible for working at ART and crane(s) at the site of the accident for re-railing and restoration work.
- vi. Maintenance of relief trains

- a) Loco Foremen or others in charge of Relief-trains, Cranes or Relief Vans are responsible for seeing that they are always fully equipped and in good running order and that the Relief Van contains the medical chest or First-Aid boxes.
- b) The Divisional Signal and Telecom Engineer is responsible for seeing that the portable telephone and the Satellite Phone sets are complete and in working order. He must personally inspect and test these equipment quarterly on such dates as may be convenient to him.
- c) The Medical Officer concerned is responsible for seeing that the prescribed stock of medicines and surgical appliances is maintained in the chests and admirals and that, the instruments and medical appliances are in perfect working order. He must personally inspect this equipment quarterly on such dates as may be convenient to him.
- d) The Sr. Divisional Engineer/Divisional Engineer is responsible that permanent way tools and stores are of suitable pattern, complete and in good condition. He must personally inspect this equipment quarterly on such dates as may be convenient to him.
- e) The Sr. Divisional Mechanical Engineer (P)/ Divisional Mechanical Engineer (Power) is responsible for the maintenance of the Relief Train as a unit. He must satisfy himself that deficiencies are made good after use at each accident and that the portable telephone and portable telegraph sets are complete with instructions as to their working kept in the boxes containing them and that their use is understood by the Relief Train staff. He must personally inspect the train and its equipment quarterly on such dates as may be convenient to him.
- f) Inspecting Officers will enter their remarks in the Inspection Book, which must be kept in the Relief Van. Train Examiner will similarly make an entry in the Inspection Book when they lifter repack a vehicle of the Relief Train, or change any of the vacuum brake rubber fittings etc. They will also certify by an entry in the Book every three months that the train is in good and safe working order.
- g) The Loco Foreman or any other person in charge of the Shed is responsible for seeing that the Relief Train gang thoroughly understands the alarm signal for attending and that principal members live in the vicinity of the Shed and their names and address contained in a list put up in a place accessible to all.
- h) The Train Examiner is responsible for organizing a break down gang from amongst his staff and see that they understand the alarm signal for their attendance, and that the names and addresses of the principal members are displayed at a place accessible to all and, as far as possible, they are housed in the vicinity of the station.
- i) In addition to the existing practice in regard to the inspection of Accident Relief Trains, Medical Vans and Auxiliary Vans by Divisional Officials individually during a quarter, hence forth, all Accident Relief Trains including Medical and Auxiliary Vans must also be inspected jointly by Divisional Safety Officers and the concerned Divisional Engineers, Divisional Mechanical Engineers, Divisional Electrical Engineers, Divisional Signal & Telecom Engineers and Divisional Medical Officers at least once in six months. The joint report relating to the result of the inspection should be sent to the Divisional Railway Manager by the end of the following month who will submit a consolidated statement to the Chief Operation Manager /Chief Safety Officer by the end of the month following the 6 monthly period. Divisional Safety Officers will act as the conveners and be responsible for fixing the date for the inspection and also for submitting the report to the Divisional Railway Manager.

- j) Under head “Maintenance of Relief Trains” Mock drill may be included which will automatically ensure all aspects of ART/ARMV including alertness of the staff.

XX) DUTIES OF THE OFFICERS OF ENGINEERING DEPARTMENT:

- i. Sr. DEN should rush to the site of the accident with his staff and report to the Accident Manager and render all possible assistance to him in rescue and relief operation. He will be responsible to mobilize manpower as may be required at the site of the accident as well as track materials which may be required. One DEN/AEN should remain in Control Office for co-ordination. Instructions by designation with alternative arrangements to cover the absence of any officer will be issued by DRM.
- ii. They will take the measurements of the track as well as Rolling Stock jointly with the Mechanical and Electrical Departments.
- iii. In the event of line being breached or permanent way being damaged, it is the responsibility of the Engineering Department to restore the track to safety and to take such precautions as may be necessary, for safety of the section where such repair works are proceeding. The P. Way materials required at the site should be collected and sent to the site for speedy restoration work.
- iv. The time likely to be taken for restoration should be assessed and reported to the Control.
- v. The line is not to be reopened for traffic until a Permanent Way Inspector or an official of Engineering Department intimates in writing to the Station Master or Senior Traffic Official present that the line is safe for the passage of trains.

XXI) DUTIES OF THE EMERGENCY CONTROL/ HEADQUARTER:

- i. Immediately on receipt of information regarding the serious accident involving passenger train, TI/Emergency will inform HWH Control to arrange a special train consisting of GM Carriage, 3 / 4 CTs or RAs and also a 2nd Class Coach upon being ordered by COM or CPTM or CSO or Secy. to GM. This train will be placed at a suitable platform of Howrah station and a locomotive be attached to it. GM/AGM and others senior officers will visit the site of accident, if required, by this train. If the train is not required, it will be cancelled under order of CSO or CPTM or Dy. COM (Safety).
- ii. TI/Emergency/HQ on getting the information of an accident will immediately convey it to the following officials in sequence mentioned below –
 - PCSO
 - PCOM
 - CPTM
 - CPRO
 - CMD
 - PCSC/RPF
 - CFTM
 - PCE

- PCME
- PCEE
- PCSTE
- PCCM
- Dy.CSO.Mechanical
- Dy.CSO.Engineering
- Dy.CSO.Operating

- iii. Principal Chief Safety Officer, Dy.CSO.Operating, Dy.CSO.Mechanical, Dy.CSO.Engineering), all Safety Inspectors and S&T staff (responsible for communication) will rush to Disaster Management Room. If GM visits the site, PCSO will normally accompany the GM, Dy.CSO.Operating will be in-charge of Disaster Management Room, which will be used as Emergency Cell. E.Rly Hqrs have already set up a multi disaster resistant control room available with all communication facilities. This multi disaster resistant control room will be utilized as EMERGENCY CELL for direct contact with the site.
- iv. A Log Book would be opened in which all information / messages received and information / messages relayed will be carefully noted indicating Sl. No., time, received from and relayed to (Name and designation).
- v. The first information report to the Board will be relayed by CSO or Dy. COM (Safety). The message will be relayed immediately on receipt of information regarding the accident even if such information is incomplete or is likely to be inaccurate. It should be stated that this message is preliminary and based entirely on the first information received. In subsequent report, which also should not be delayed under any circumstances, necessary corrections may be made. If all the relevant details are not available, or are incomplete that must be indicated clearly in every message relayed to the Board.
- vi. Even if the casualty figures are not fully available, the seriousness of the accident may be indicated on the basis of which Hon'ble M.R / MOSR, CRB and Members / Senior Officers of the Board will decide whether to visit the site of the accident or not.
- vii. Names and address of the casualties should be obtained as quickly as possible from the Division where the accident has taken place and relayed not only to the Board but also to the Railways/Divisions over which the train had passed and also the Divisions/Railways over which the train was originally scheduled to run including the originating and destination stations.
- viii. PCOM will organize to man the Emergency Cell round the clock. If necessary, assistance may be sought from other Departments like Civil Engg., Mechanical, Operating, Commercial etc. to depute JA/Senior Scale Officers for this purpose. A officer-wise and inspector-wise schedule should be quickly drawn up since such emergency may continue for more than a day. Deputed Officers and Inspectors will collect the information from the site.

EASTERN RAILWAY

STANDARD OPERATING PROCEDURE (SOP)

For FIRE EXTINGUISH AND RESCUE in Railway Operation

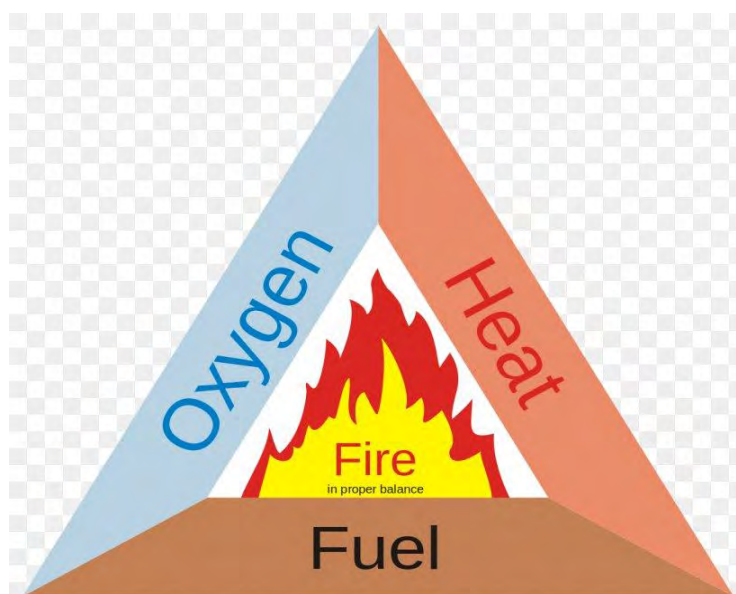
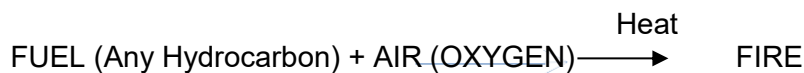
1. INTRODUCTION

- 1.1** The fire incidences in trains are among the most serious disasters to human lives and the property of Indian Railways. Indian railway has already taken up various step for fire Prevention & train fire has become a serious concern for Railways.

A train fire is different from a fire in other places in the manner in which it breaks out, grows and spreads, and in the method of fighting it. Fire in a coach on running train is very dangerous because it spreads very quickly in closed space. People died due to Smoking or choked due cut off with other coaches.

1.2 CHARACTERISTICS OF FIRE











The fire triangle illustrates the three elements a fire needs to ignite: heat, fuel, and an oxidizing agent (usually oxygen). By eliminating any one of the element, fire can be extinguished.



1.3 CLASSIFICATION OF FIRES

Fires are classified according to the type of fuel that is burning. If wrong type of fire extinguisher is used for extinguishing the fire, it might make matters worse. The four different fire (fuel) classifications are as under:

1. Class A: Wood, paper, cloth, trash and plastics - solids that are not metals.
2. Class B: Flammable liquids—gasoline, oil, grease, acetone. Includes flammable gases.
3. Class C: Electrical—energized electrical equipment (as long as it's "plugged in" or supply ON)
4. Class D: Metals—potassium, sodium, aluminum, magnesium. Requires Metal foam, and other special extinguishing agents.

		Ordinary Combustibles	Wood, Paper, Cloth, Etc.
		Flammable Liquids	Grease, Oil, Paint, Solvents
		Live Electrical Equipment	Electrical Panel, Motor, Wiring, Etc.
		Combustible Metal	Magnesium, Aluminum, Etc.
		Commercial Cooking Equipment	Cooking Oils, Animal Fats, Vegetable Oils

5. Class K: Cooking Fuel- Cooking Oil, Animal Fats, Vegetable Oil, Cooking Equipment

1.4 PROBABLE CAUSES OF FIRE IN RAILWAY COACHES

- Carrying inflammable goods like stove, gas cylinder, kerosene oil, petrol, fireworks etc. in passenger coaches.
- Making/using fire near paper, wood, petrol or such other inflammable articles.
- Throwing waste material outside the dust bin, near door, non-removal of garbage from pantry car/coaches.
- Malpractices like carelessly thrown lighted match sticks, cigarette butts and Bidi

butts etc.

- Leakages/Blasts of pantry gas cylinders.
- Careless, storage of inflammable materials like newspapers, edible oil etc. in pantry cars.
- Insertion of cigarette butts, Bidi butts, Gutkha wrapper etc. in fan base, fuse distribution board, roof openings and ventilators etc.
- Sabotage.
- Mishandling/Careless use of pantry equipment by pantry car staff.
- Gas regulator, flame arrester and pressure gauge in pantry car are not in working order
- Poor maintenance of electrical equipment's and short circuits.
- Loose or temporary connection, hanging wires/exposed joints etc.
- Defects in locomotive causing fire.

1.5 NECESSITY FOR IMMEDIATE ACTION

In most of the cases, relief reaches a burning train after the carriages are completely burnt and passengers dead or badly burnt. Under such situation, role of on-board Railway servants becomes vital and they should plunge into action to save the precious lives on priority.

The role of on-board staff who accompanying trains shall react immediately to put-off / extinguish fire and rescue passengers / save the railway property

In the event of a vehicle on a train caught fire, on run.

- l) The train shall be stopped, immediately.
- m) Efforts shall be made to save the lives and RMS first.
- n) Information should be given to the nearest SM/control quickly.
- o) The burning vehicle shall be isolated a distance of not less than 45 meters being left between it and the other vehicle of the train.
- p) The train shall be protected in accordance with GR. 6.03, if not protected by fixed signals.
- q) Every effort shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
- r) Earth or sand, if available shall also be used to extinguish fire in addition to fire Extinguisher and water bucket as per training imparted to the staff.
- s) Ordinary Fire extinguisher or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment. If the services of the Fire Brigades are required, the brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire has been made dead and earthed.

- t) If the fire is suspected to be due to electrical short circuit, the electric couplers at both the ends shall be disconnected & fuses from the battery from boxes shall be removed.
- u) In case the fire is near a tank, the Guard and Driver shall use their discretion to proceed there, but no such attempt shall be made until the portion of the train in rear of the vehicle has been detached.
- v) All available help should be mobilized to extinguish the fire.

In this context, the Railway servants the on board staff need to have basic knowledge on fire and firefighting methods. They have to be imparted the methods of rescue through various training programs.

2.0 FIRE PREVENTIVE MEASURES IN COACHES

2.1 FIRE FIGHTING ARRANGEMENT

Guard-cum-Brake Van, AC coaches and Pantry Cars in all trains are provided with portable fire extinguishers to cater for emergencies due to fire accidents.

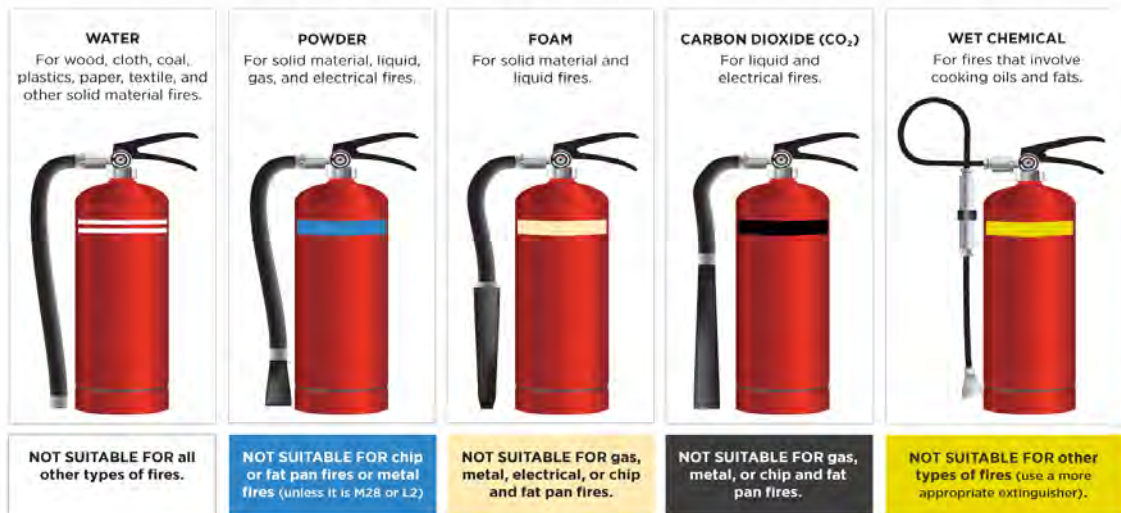
- Fire extinguishers shall be in working order.
- Shall be located on the brackets at easily visible and accessible place.
- They shall not be placed in locked cupboards/compartments.
- Shall carry an instruction plate for operating instruction in English & Hindi and any other regional language.
- Last checking, refilling date and due date shall be displayed on it.
- Adequate firefighting training is to be given to the running and other train staff.
- Teams should be Formulated for Fire Fighting , Fire Fighting Assistance Team, Medical Team, With proper equipment

2.2 FIRE EXTINGUISHERS:

The fire extinguishers used in railway coaches are of Dry Chemical powder (DCP) type. Dry chemical extinguishers put out fire by coating the fuel with a thin layer of dust. This separates the fuel from the oxygen in the air. This is available in two variants:

- i. Stored Pressure Type
- ii. Generated Pressure type

Main types of portable extinguishers, their uses and colour coding



The contents of an extinguisher is indicated by a zone of colour on the red body.
Halon extinguishers are not shown since no new Halon production is permitted in the UK.

Type Extinguisher	Fire		CLASS A	CLASS B	CLASS C	CLASS D	Electrical	CLASS F	Comments
			Combustible materials (e.g. paper & wood)	Flammable liquids (e.g. paint & petrol)	Flammable gases (e.g. butane and methane)	Flammable metals (e.g. lithium & potassium)	Electrical equipment (e.g. computers & generators)	Deep fat fryers (e.g. chip pans)	
Water	✓	✗	✓	✗	✗	✗	✗	✗	Do not use on liquid or electric fires
Foam	✓	✓	✓	✗	✗	✗	✗	✗	Not suited to domestic use
Dry Powder	✓	✓	✓	✓	✓	✓	✓	✗	Can be used safely up to 1000 volts
CO ₂	✗	✓	✗	✓	✗	✗	✓	✗	Safe on both high and low voltage
Wet Chemical	✓	✗	✗	✗	✗	✗	✗	✓	Use on extremely high temperatures

3.0 INSTANT ACTION TEAM AGAINST FIRE

- In case of fire on train, typical time available for rescue is 2-3 minutes before smoke fills up and passengers start getting disoriented.
- Fire in personal clothing causes loss of consciousness in 10-15 seconds and death or incapacitation (followed by death) can happen in five minutes.
- Smoke (toxic/non-toxic) can cause suffocation and loss of consciousness in two minutes.
- A fire in train destroys the train carriage(s) completely in a few minutes before relief

reaches.

- Under such situation, role of on-board Railway servants becomes vital and they should plunge into action to save the precious lives on priority.

3.1 Instant Action Team

- Train crew (Loco pilots, Guard, TTEs)
- AC Coach staff, TXR staff
- RPF/ GRP staff
- Pantry car and On-board Housekeeping Staff (railway and / or contractor)
- On board Railway employees either on duty or on leave traveling as passengers
- Doctors traveling by the train
- Passengers traveling on the train who volunteer for rescue and relief work
- Railway staff working at site or available near the site of the fire incident

3.2 Role of Instant Action Team

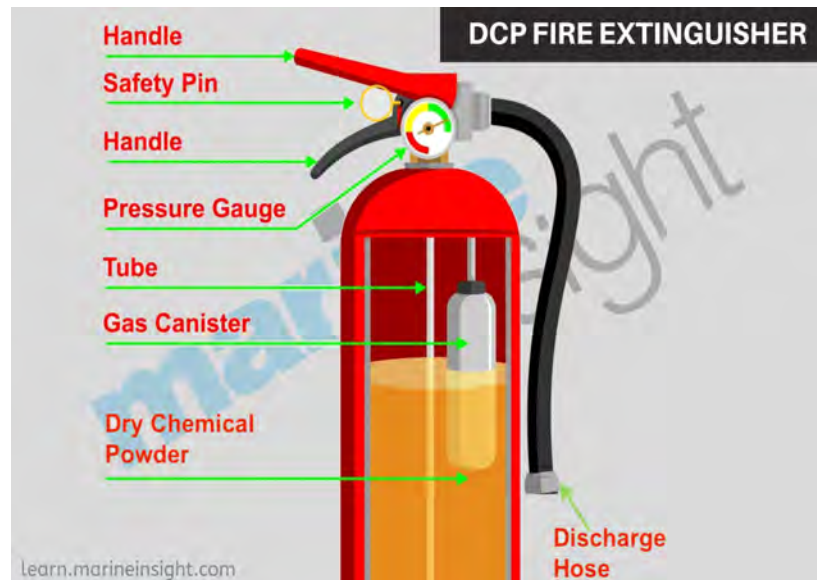
- All staff of Instant Action team should be trained and conversant with identifying the type of fire, handling of Fire Extinguishers and operation of Fire Suppression system now being introduced in Coaches.
- Don't panic.
- Pull the Alarm Chain and stop the train immediately.
- Ascertain the type of fire viz, dry, oil gaseous, electric and use the right type of extinguishers.
- Locate the fire extinguishing substances viz, fire extinguishers, water bucket with water/sand, etc.
- Whenever alarm is triggered through Automatic Fire Detection system in Coaches (Power car/ SLR, Pantry car & AC coaches) fitted with Fire detection System (Manual/Automatic), extinguish the fire as per the instructions pasted in the Coach.
- Throw earth or sand, if available, on the fire.
- Use water from the coaches and extinguish the fire
- Try and put-off the very source of the fire before it becomes a big blaze.
- Turn off Electrical Appliances. In case of fire from electricity switch off the source.
- Put-off fire immediately with available fire extinguishers, or various ways and

means to put-off fire.

- Protect property, valuables & mails.
- In case of the fire is discovered when the train is near the tank or a watering station, the Guard and Loco Pilot shall use their discretion to proceed there, but no such attempt shall be made until the portion of the train in rear of burning vehicle has been detached.
- Inform all concerned to assist in extinguishing the fire.
- Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules; if the fire is not extinguished.
- After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
- More people shall be expired due to suffocation by smoke rather than due to actual burning.
- Advice passengers to take a cloth, wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.
- Insist that passengers shall save themselves first and not to bother about their Luggage which shall be retrieved later. Open emergency windows/brake glasses for evacuation of the passengers.
- Isolate the affected coaches from other coaches by decoupling both Mechanical & Electric couplers.
- Report it to the nearest station/control/fire station. (fire services : 101, it can be dialed by mobile also)
- Provide wheel skids to prevent roll back of isolated coaches and train as well. Train shall be protected by Loco Pilot and Guard at both ends according to the provision of GR 6.03.
- For fire in Wagons, every effort shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
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3.3 CONVERSANT TO USE A STORED PRESSURE TYPE DCP FIRE EXTINGUISHER

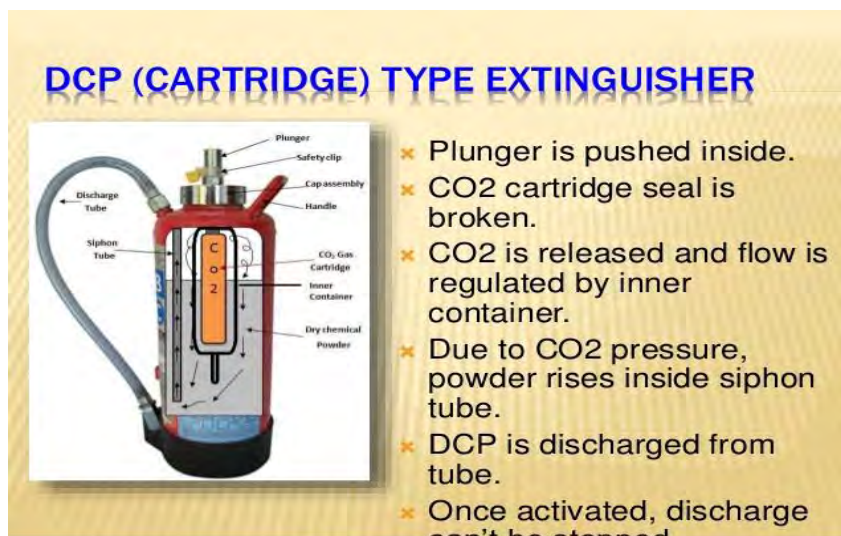
1. Break the seal and pull the pin.
2. Hold hose in hand and aim the extinguisher or nozzle at the base of the fire.
3. Squeeze the handle and release the extinguishing agent.
4. Sweep the extinguisher from side to side across the base of the fire until it appears to be out.



5. learn.marineinsight.com

3.4 CONVERSANT TO USE A GENERATED PRESSURE (CARTRIDGE) TYPE DCP FIREEXTINGUISHER

1. Remove the safety clip of fire extinguisher.
2. Tilt the extinguisher at 60 degree to avoid injury to user.
3. Break the cartridge by hitting the plunger with palm duly holding the pipe.
4. Direct the jet towards the near edge of the fire with a rapid sweeping motion.



3.5 CONVERSANT IN OPERATION OF AUTOMATIC/ MANUAL FIRE SUPPRESSION SYSTEMS

1. The Operating Instruction is pasted by the side of the Suppression System and members of Instant Action Team should be well aware of.
2. In case of Manual Suppression System, whenever there is a fire / smoke inside the coach, sensor will activate smoke alarm which will give audio / visual signal at this stage, if required Fire Suppression System can be activated by pressing manual activation switch.

3. In case of Automatic Suppression System, whenever there is a fire / smoke inside the coach, sensor will activate heat alarm which will give Audio / visual signal and the Suppression System will automatically operate within 30 seconds.

If in case the system not functioning, the suppression system can still be activated by manually pressing the lever in the nitrogen cylinder as detailed in the operating instruction pasted near the suppression system. Staff travelling will have to be trained to operate the system.

3.6 WHEN A PERSON IS ON FIRE

- Approach him holding the nearest available wrap in front of you.
- Wrap it round him.
- Lay him flat and smother the flames.
- He may roll on the floor, smothering the flames.
- On no account should he rush into the open air.
- Call for assistance.

3.7 HANDLING OF INJURED PASSENGERS

- Building up confidence of injured passengers by suitable advice is of great importance.
- First aid should be rendered to the injured passengers.
- Ordinarily give nothing ORALLY to injured one, but if medical treatment is delayed more than 4 hours, give Oral Rehydration Solution (ORS) drinks preferably bio carbonated soda.
- In serious case, remove the patient quickly to hospital as the injured may require an aesthetic, medical soothing.

4.0 IN THE EVENT OF FIRE IN OTHER THAN COACHES

4.1 IN THE EVENT OF FIRE IN ELECTRIC ENGINE or EMU

1. The Loco Pilot/Motorman shall immediately switch off the circuit and lower the pantograph. The train shall then be brought to a stop at once.
2. After disconnecting the electric supply, including battery supply, to the affected circuits, the Loco Pilot/Motorman shall take necessary action to put out the fire.
3. If fire cannot be extinguished by the above means the Loco Pilot/ Motorman shall advice the Traction Power Controller through the emergency telephone to arrange

the affected section of the over-head equipment to be made dead.

4. The Guard and any other staff available shall render all possible assistance to the Loco Pilot/Motorman in putting out the fire.
5. Ordinary fire extinguishers or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment. If the services of the fire brigade are required, the brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire has been made dead.

4.2 IN THE EVENT OF FIRE IN MEMU/DEMU STOCK

1. The Motorman shall immediately switch off the circuit breaker and shut down the engine. The train shall be brought to stop at once.
2. The Guard shall give all possible assistance to the Loco Pilot in putting out the fire **and isolate the other coaches from the affected coach.**
3. The fire extinguishers of approved type shall be provided on each motor coach of DMU when a DMU rake is turned out from the car shed. The SSE in charge of the shed shall inspect the fire extinguishers and ensure that these are in good working condition.

4.3 IN THE EVENT OF FIRE IN GOODS VEHICLE

If a fire occurs in goods vehicle, the wagon shall at once be opened and earth or sand thrown on the burning goods and such articles as are not burning saved, if possible, sods with grass, if available, shall be thrown, as these often smother fire better than water.

If the wagon is loaded with cotton or other goods catches fire and fire can't be extinguished, the Guard shall try and obtain the label of the wagon and sample of the cotton or goods and forward the same securely packed to

The DRM with the full report stating the train no, date and place of fire, wagon number and name of stations from and to.

4.4 IN THE EVENT OF FIRE CAUSED BY PETROL OR ANY OTHER INFLAMMABLE LIQUIDS, ACIDS OR GASES

1. Segregate the affected wagon, coach or area involved.
2. On opening a coach/wagon do not enter it immediately. You would thus, avoid fumes, which may be dangerous. Allow the fumes to let away from the affected area.
3. Use DCP/Foam type fire extinguishers and sand which extinguish gas or oil fire.
4. Do not use water or soda acid type fire extinguishers.

5. Do not bring naked lights near the site of fire.
6. Warn the people living in the surrounding one Km radius.
7. Stay away from ends of tanks, as tanks normally burst from the ends.
8. Cool tanks that are exposed to flames with water from the sides only after the fire is put out.
9. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
10. Inform the nearest Railway or Civil Fire Stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases.

4.5 IN THE EVENT OF FIRE/ACCIDENT CAUSED DUE TO EXPLOSIVES/ INFLAMMABLES/ DANGEROUS GOODS ETC.,

1. Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
2. Following steps shall be taken if no undue risk is involved:
 - a. Move unheated Cylinders to a safe place after ensuring closing of valves.
 - b. Cool the Hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.
 - c. If the cylinder containing inflammable/toxic gas which develops leak during transport remove it to an isolated open place away from any source of ignition and advise the filler or consigner as required.
 - d. Inform the Chief Controller of Explosives by fax/ telephone.
 - e. Inform Officer in charge of nearest police station.
 - f. Inform Departmental Officers concerned.
 - g. Pending the visit of the Chief Controller of Explosives/ his representatives, the wreckages and debris shall be left undisturbed except to save lives.
 - h. After getting information from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.
- 3 If you smell gas or vapour, hold a wet cloth loosely over your nose and mouth and breathe through it in as normal as possible.

5.0 ROLE OF OFFICIALS- As per Disaster Manual, Following are Duty of Staff at Incident

5.1 STATION MASTER AT STATION OR NEARBY STATION OF FIRE INCIDENT

1. Station Master shall advice the section controller / TPC on the fire incident of trains in the section duly exchanging private numbers with the section controller indicating the affected section for OHE isolation.

2. Station master shall not allow to any train to enter even in the healthy line of the affected section
3. Station master shall issue caution order to GDR of train on the healthy line of unaffected section to proceed at 60kmph in day when a clear view ahead and 30kmph in night to observe any other obstructions
4. After clearance of affected train from the section advice section controller
5. On receipt of advice from section controller allow the train service on the section on releasing the emergency power block and OHE power is switched on in the section.

5.2 SECTION CONTROLLERS

1. Section controller, on receipt of fire incident, shall advice adjacent stations /station masters to regulate the train services in the affected section
2. Advice traction power controller to switch off OHE power supply in the affected section duly exchanging private number with the traction Controller
3. On receipt of advice in writing from TPC, advice the station masters of all stations in the affected section to treat the DEAD SECTION as if the same is under emergency power block and to ensure that no train is allowed to enter in the affected section.
4. Shall ensure no train is allowed to enter even in the healthy line of the affected section
5. Shall advice station master to issue caution order to GDR of train on the healthy line of unaffected section to proceed at 60kmph in day when a clear view ahead and 30kmph in night to observe any other obstructions
6. On release of affected train /coach / goods train from the section advice traction power controller to switch-on OHE power supply and cancel the emergency power block
7. train services shall be restored accordingly

5.3 TRACTION POWER CONTROLLERS

1. The Traction power controller shall switch off the OHE power supply of both the lines of relevant affected section
2. Advice section controller in writing that OHE power supply has been switched-off in the affected section.
3. Shall advice the section controller to have emergency power block in the section to treat as DEAD section
4. After release of affected train /coach /goods train in the affected section shall advice section controller to cancel emergency power block.

5. On acknowledge from section controller TPC shall switch-on the OHE power supply in the affected section.

5.4 AC COACH MAINTENANCE STAFF

1. Immediately isolate the affected coach/coaches electrically.
2. Use fire extinguisher to extinguish fire to the extent possible.
3. Immediately check lights in the coaches and provide light in dark coaches. Provide light at accident site.
4. Take necessary action as a man of common prudence will take not only to help the stranded passengers but also to arrange such helps as would be demanded by the circumstances.
5. Help in extricating the trapped passengers/bodies.

5.5 CREW (LOCO PILOT/ ASST LOCO PILOT / CO-PILOT / GUARD)

1. Stop the train immediately.
2. Arrange the stretcher and first-aid box for the injured passengers.
3. Arrange for isolating the affected coaches from other coaches by decoupling both Mechanical & Electric couplers. The vehicle behind the one on fire shall be detached and the front portion of the train moved forward so as to prevent the rear vehicles catching fire. As soon as the front portion of the train has moved forward, a sufficient distance, to secure the desired object, the burning vehicle shall be detached and the vehicles in front of it shall then be moved forward to a safe distance.
4. The guard shall immediately switch of the electrical lights and fans.
5. Report it to the nearest station/control/fire station.
6. Provide anti rolling arrangement on the isolated coaches and train as well.
7. Render first aid to injured passengers, obtaining assistance of the railway staff, doctors and / or volunteers on the train, or near the site of accident; and transport the injured to the hospital by taking the help of Ambulance service means available.

5.6 TRAIN SUPERINTENDENT / TTES

1. Pull the Alarm Chain and stop the train immediately.
2. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules; if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
5. Advice passengers to take a **cloth wet it in their drinking water** and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.
6. Arrange the stretcher and first-aid box for the injured passengers.

7. Insist that passengers should save themselves first and not to bother about their valuables/luggage which can be retrieved later on.
8. Locate the fire extinguishing substances viz, fire extinguishers, water bucket with water/sand, etc. Use water from the coaches.
9. Report it to the nearest station/control/fire station. (Fire services: 101, it can be dialled by mobile also)
10. Take assistance of volunteers from passengers, Railway employees traveling, doctors on train, on-board contractor staff etc. in rescue operation.

5.7 PANTRY CAR STAFF

1. Put-off and Protect the inflammable available at pantry car.
2. Extinguish the fire by using fire extinguishers available at pantry.
3. Provide necessary assistance to TTE as directed.

5.8 ON BOARD HOUSEKEEPING STAFF & C&W STAFF

1. Open the doors of both sides of coaches.
2. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules; if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
3. Open Emergency Windows for Evacuation of the passengers.
4. Provide necessary assistance to TTE as directed.

5.9 RPF/GRP

1. Separate the area of incident by establishing temporary barriers and ensure that the on lookers and spectators do not enter the affected area to disturb the scene or hamper the rescue operations.
2. Baggage of passengers should be isolated and protected and should be taken care of, till they are handed over to claimants or taken over by Railway authorities.
3. RPF personnel should respond to any call for assistance to rescue victims and transport them to the nearest hospital.
4. Check, save and record the evidences/clues of the fire.

5.10 BD STAFF

1. Before entering the coach ART staff shall wear proper fire suite with equipment's.
2. Cold cutters are only to be used to rescue the entrapped passengers.
3. Arc welding / Gas welding, ARC cutting / GAS cutting shall not be used
4. ART staff shall ensure no passenger is entrapped inside the coach before lifting coach for restoration work.
5. ART supervisor shall ensure reaching of ARME/SPART before golden hours.
6. Staff shall be familiar with location of emergency windows/exit for different type of

coaches.

7. Fire blankets shall be kept ready before reaching spot.
8. Doctors shall be kept informed in advance the requirement and action to be taken before reaching the accident spot.

6.0 PRECAUTIONS TO BE TAKEN TO PREVENT FIRE INCIDENTS AT STATION AND YARDS

6.1 AT STATION & YARD.

1. All switches/breakers including power supply to coach fittings, main pantry and mini pantry equipment's should be turned off by nominated staff of Electrical department before the coaches are locked.
2. On arrival of any train at a terminal station, window shutters should be dropped and coaches should be locked positively by C&W staff in presence of RPF to prevent entry of unauthorized person.
3. The rake must be moved from platform to yard and from yard to platform in locked condition. It should be ensured that no passengers/persons remain inside the coaches before locking them, except electrical escorting staff like AC mechanic etc.
4. If any, stations nominated staff of C&W or electrical department not available, this activity has to be carried out by nominated staff of Operating Department.
5. If a rake is stabled at Platform or coaching yard is being moved for maintenance or being moved out after maintenance, the activities mentioned against points 1,2,3& 4 to be ensured by the concerned staff.
6. The rake should be emptied and all escorting staff, pantry staff, linen staff etc., should vacate the coaches and it should be ensured by C&W staff that the coaches are in locked condition.
7. Rake should not be moved out of the platform till the time activities mentioned above are completed. Whenever it is not feasible to complete the above procedures without jeopardizing, other operational requirements, alternative measures should be jointly devised by the concerned department to comply the said aspects. This should be personally ensured by SM on duty.
8. Whenever rake stabled at yard and station, the area must be provided with all basic security arrangements and covered under CCTV surveillance. RPF should report the requirements to the concerned departments for compliance.
9. Proper lighting arrangements should be ensured by Electrical Department and backup generators may available at Yard and stabling areas where maintenance of rakes are done to ensure continuous lighting even in the Event of power failure. The SM/YM in condition with Electrical Department should ensure proper arrangements.
10. All precautions outlined with respect to stabling of rakes at station as applicable should be followed for stabled rake in yard also.
11. The availability and validity of fire extinguishers in locomotives /AC compartments/Pantry cars were checked.

12. In case of other end maintenance is carried out at stations, contract staffs deputed to work on rake should possess permit issued by Railway. Concerned C&W supervisor should ensure that after completion of work by staff, the coach is vacated and locked.

6.2 DURING MAINTENANCE

In spite of the precautions taken at the coach design, manufacturing stages, constant vigilance is required by the maintenance staff to prevent failure of the equipment or protection system of the coaches. Preventive maintenance and inspection play vital role in safe operation of trains. Carry out the preventive maintenance and repair of the equipment with care as per the schedules laid down.

All maintenance Depot staff should be trained for firefighting and Daily checkup should be done for firefighting equipment

6.2.1 MAINTENANCE OF PROTECTION SYSTEM

Protective devices are necessary to provide protection in the event of any short circuit or excessive current on the coaches. If proper functioning of protective devices is ensured, it will help in avoiding failures of electrical equipment on the coaches.

- a. Ensure that the proper sizes and types of fuses are used for replacement. No short cut should be done such as providing temporary fuse wires. Use MCBs and fuses of only approved suppliers as laid down by RDSO/ original equipment manufacturer (OEM).
- b. Ensure that all the protective relays are in good working order and are properly calibrated as per the schedules laid down. Do not by pass any protection system.
- c. As the quality of protective devices is also important it should conform to their relevant specification and should be of approved makes.
- d. The re-wirable fuses should be as per IS-9926-1981 and HRC fuses shall be as per IS-13703 (part 2/ sec 2) 1993 and should be procured from approved sources.
- e. In rotary junction box fuse ratings such as 35A, 16A, 6A etc. shall be displayed by providing proper sticker/paint and should be ensured during maintenance so as to avoid any possibility of providing wrong size fuse.

6.2.2 WORKING OF VANE RELAY

The proper functioning of protection system i.e. checking the working of vane relay should be checked during weekly inspections. Using a piece of small board, block the return air opening through the duct with vane relay. The system should trip due to scarcity of air through vane relay.

6.2.3 WORKING OF THERMOSTATS FOR HEATER CIRCUIT

The proper functioning of protection system with thermostats for checking the overheating of heater should be checked during every IOH/POH. The vane relay should be isolated by shorting the terminals at control panel. And then using a piece of small board, block the return air opening through

the duct with vane relay. The system should trip through OHP due to overheating of heaters because of scarcity of air.

6.2.4 WORKING OF OVER VOLTAGE PROTECTION (OVP) RELAY

The working of OVP should be checked as per SMI no. RDSO/PE/SMI/AC/0019-2002 (Rev-0) for "Testing procedure for proper working of over voltage protection provided in 25 KW/22.5 KW alternators in AC coaches. The testing of OVP should be carried out during following.

- I. During POH.
- II. Before commissioning of new alternators on AC coaches at production units (PUs)/workshops
- III. Whenever RRU is repaired/ replaced at AC depots

6.2.5 BATTERIES

Batteries constitute a explosion risk when they are being given heavy charge. Heavy charging can be either due to malfunctioning of the charging equipment or carelessness when charging on the coach from the shop floor rectifier. It is, therefore, important to check that the ventilation provided in the battery box is not choked. The staff should be made aware of the dangers of overcharging and interfering when the battery is on charge.

6.2.6 CLEANLINESS OF UNDER FRAME

The under-slung equipment such as alternators, battery boxes, RRU/ERRU, battery fuse boxes etc. shall be cleaned properly in each schedule and any foreign material shall be removed to avoid any failure.

6.2.7 CONTROL PANELS

The control panels comprise cables, connections, contactors, fuses, MCBs etc. and require proper attention during maintenance. Ensure that proper maintenance of the equipment and switchgears inside the panel is done as per schedules laid down and carefully looked for developing any fault.

6.2.8 TIGHTNESS OF CONNECTIONS

A loose connection may a potential source of failure as not protected by any protective device. Proper tightness of all the connections is, therefore, to be ensured and this point is to be given particular attention during inspections. Awareness campaigns should be lodged for the workman with prominent display.

6.2.9 REPAIRS TO WIRING

Use only approved quality of cables for repairs. Use proper size of cables. Undersized cables and unapproved type of cables should not be used even as a temporary measure. Cable jointing should be prohibited and this instructions should be displayed prominently at the work place. Repairs should be carefully carried out so that no damage is caused to other cables.

6.2.10 CLEANLINESS OF ELECTRICAL EQUIPMENT

“Cleanliness is next to Godliness” is nowhere more true than for electrical equipment. Insulation failures can result from surface flashovers due to presence of dirt, dust and moisture. It is, therefore, essential that proper cleaning of terminal connections, bus bars, insulators and equipment is done during schedules as laid down to remove dust and dirt particles.

6.2.11 EARTH CHECKING

The earth fault in the wiring of the coach is the first stage for causing a short circuit in the supply system and so should be checked and attended promptly. The earth fault shall be checked both on phase and neutral wires separately and on positive and negative wires separately (for 110V DC system).

Light point, fan point, pantry equipment and the switches are particularly prone to earthing in metal bodied coaches and therefore to minimize this possibility, proper attention is required to be paid at the time of fitment of these light/ fan fittings, brush holder of the fan, toggle switches and also while carrying out their maintenance in service.

Proper attention should also be paid during laying of wires in lavatory, near water tank and wash basin area to avoid contact with water. The insulating bush shall not be provided in the mounting lug of the fan. It shall be ensured that fan base of all the fans should not be insulated with the coach body. All the electrical fittings both on super structure and on under-frame shall be mounted directly on the coach body and shall not be electrically insulated.

All the electrical equipment above 110 V shall be individually provided with earthing shunts between equipment body and coach body.

6.2.12 AIR CLEARANCES

Air clearance of 10 mm has been specified between any live part and the coach body and 4 mm between parts of opposite polarities (EL/TL/48 clause 3.9.4) for 110V system. The clearance for live parts for other voltage grades will generally meet the requirement of IS: 13947 Part-I, 1993. This is primarily to ensure adequate separation to facilitate ease of fitment and maintenance in service. In case of clearance being inadequate, there can be a possibility of short circuit due to the working tools or any other inadvertent reason. It is therefore, important that adequate clearances, as specified, are maintained in all the fittings i.e. between live parts and earth and between live parts of opposite polarity.

6.2.13 CABLE INSULATION

Cable insulation on coaches gets damaged due to various reasons, resulting in earth fault on wiring, which in turn may cause short circuit. Therefore, any damage to the cable insulation should be prevented and attended promptly.

Maintenance staff should not chip cable insulation between the circuits for test feed etc. and should test at terminals only. It is dangerous practice of chipping the cable insulation for testing purpose. This leaves a permanent scar on the cable insulation and even its subsequent taping with insulated tapes will not be quite satisfactory.

6.2.14 COACH INSULATION RESISTANCE TEST

The following should be followed to measure the insulation resistance of coaches:

- I. Superstructure wiring and under frame wiring shall be tested separately for which the main fuses in the power panel and terminal boards shall be removed and controlling switches shall be kept off. Insulation resistance shall be measured with all fittings and equipment connected, both on underframe and superstructure. The underframe wiring shall be tested with battery fuse in open condition.
- II. Insulation resistance for train lighting circuits of 110 V ac/dc, under fair weather conditions shall be minimum 2M ohm. However, under adverse (high humid/wet) weather conditions, the minimum insulation upto 1 M. ohm will be acceptable. (Table1).
- III. While taking the IR for power circuit with Inverters, the cables should be disconnected from inverter terminals.
- IV. In case the insulation resistance is found to be less than the above mentioned values, the individual sub circuits and control panel i.e. Light, Fan, WRA and air-conditioning equipment etc., for superstructure wiring and different feeder for under frame wiring shall be meggered separately and the coach shall be treated to have passed the test if insulation resistance's values of these feeders tested individually is within the limits prescribed in above para.
- V. Insulation resistance for other equipment of different type of train lighting/ air conditioned coaches working at different voltages will be measured as per the following table. The meggering voltage and the values of the insulation resistance for the various circuits shall be as given below:

Table-1

SNo	Rated circuit Voltage	Meggering Voltage	Insulation Resistance Value
1	750 V a.c	1000 V d.c	Not less than 5 M. ohms
2	415 V a.c	1000 V d.c	Not less than 3 M. ohms
3	230 V a.c	500 V d.c	Not less than 2M. ohms
4	190 V a.c	500 V d.c	Not less than 2 M. ohms
5	110 V a.c	500 V d.c	Not less than 2 M. ohms

The insulation resistance is to be measured during every IOH/POH schedule of maintenance and record for the same should be maintained coach wise

6.2.15 ATTENTION TO AVOID BRAKE BINDING

Panic has been noticed to have been caused among the passengers due to smoke emission due to brake binding. Ensure that the brake system is maintained to the highest standard possible to minimize brake-binding cases. All Guard & Driver should be trained for releasing Brake binding.

6.2.16 REPAIRS OF INTERIOR FURNISHINGS

While carrying out the repairs to the interior furnishings, ensure that only the approved quality of the furnishing materials are used. Unapproved materials should not be used even as a temporary

arrangement as this would become a practice over the course of time. Sufficient stock of the approved furnishing and paneling materials should be kept in the depots and workshops, depending upon the requirements so that there is no temptation to the maintenance staff to use other non-standard materials.

6.2.17 REPAIRS TO UNDERFRAME MEMBERS

While carrying out repairs to any metallic members of the coaches, precaution should be taken whenever gas / welding equipment are used. The process of welding or gas cutting generates high heat and this can initiate any fire hazard in non-metallic materials. The operator should ensure that no items are affected or wait till the heat is safely dissipated.

When welding proper earthing should be ensured or else the return current might initiate a spark elsewhere causing fire to develop later inside the coach. Also the welder should disconnect all connections given to the coach after completion of work before leaving the work spot.

After work, staff should ensure no tools or small metallic pieces are left in the underframe of the coaches. These small metallic objects might move inside electrical consoles and initiate short circuit and fire hazard.

7.0 DO's AND DONT's

DO's	DONT's
<ul style="list-style-type: none"> • Keep the fire extinguishers in clean condition. • Ensure availability of fire extinguishers at easily visible and accessible places. • Emergency window should be free in operation • Emergency window position should be displayed properly. On-Board staff should be conversant. • Do not throw waste material outside dust bin Pantry staff should keep the Pantry stove platform clean and no foreign material shall be left on it. • Ensure the isolating cock of LPG line is in OFF condition when not in use in pantry car. 	<ul style="list-style-type: none"> • There should be no sharp bend in rubber pipe of Fire Extinguisher. • Fire extinguishers should not be locked in cupboards. • Emergency window should not be rusted or deformed preventing opening of window • Emergency window position should not be displayed in random places for every coach. • Insertion of cigarette butts, Bidi butts, Gutakha wrapper etc. in fan base, fuse distributionboard, roof openings etc. • Do not keep inflammable materials like edible oil tin/can etc., near gas burner/stove. • Do not use defective isolation cock or by-pass isolation cock or handle

<ul style="list-style-type: none"> • Vestibules area shall be free. • Use proper connectors with rated capacity for charging in mobile phone/lap top socket. • Ensure availability of hammer in hammer box provided with window glass that could slide up for easy removal. 	<p>obstruction to handle preventing closing of the isolation cock.</p> <ul style="list-style-type: none"> • Do not keep bed rolls, etc. in the vestibule area. • Do not plug extra load/ loose wire on mobile phone/ lap top socket. Do not allow over charging of mobile phones especially during nights which may cause fire explosion inside coach. • Do not fix hammer in a container that will take time and require screw driver to remove in case of emergency. • Do not allow smoking in the train • Do not allow any un-authorized vendors in train
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Chapter-20

Guidelines for Photography & Videography at Accident Site

1. While carrying out photography/videography, date and time option of camera must be activated. Resolution should be minimum Full HD for videography and minimum 2 Mega Pixel for photographs.
2. Site should be covered from one end to another in sequence, preferably from front to rear.
3. While taking photograph/video of trackside infrastructure (Track, OHE, Signals etc.), it should be ensured that the frame covers OHE Mast number/Hectometer Post number.
4. Similarly, while taking photographs of rolling stock, the loco/coach/wagon number must be covered in the frame along with OHE Mast/Hectometer Post number to the extent feasible.
5. While taking photograph of trackside infrastructure and/ or rolling stock, the principal of 'whole to part' must be followed.
For example, for trackside infrastructure, the first shot (long shot) should cover entire site along with OHE Mast No./Hectometer Post No.; the 2nd shot (medium shot) should cover closer view; 3rd, 4th, 5th and so on should cover further closer view with finer and finer details.

Similarly for rolling stock, the first shot (long shot) should cover the entire coach/wagon with coach/wagon number; the 2nd shot (medium shot) should cover particular bogie and the 3rd/4th shot (close shot) should have close-up of bogie and specific components.
6. The site must be covered up to sufficient length in rear and any abnormality must be recorded.
7. Photography/videography should be done from different angles and must cover important locations such as suspected point of impact and point of drop, affected parts of rolling stock such as wheels, any part of rolling stock dropped on track, conditions of points etc. Close-shots of these locations need to be taken. The officials of safety organization must guide in this exercise.
8. Photographs of all damages to loco, rolling stock and fixed assets (Track, Signal, OHE, LC etc.) must be taken.
9. Photograph of travel marks on rail head/local, sleepers, fastening and ballast must be taken. Contact marks, abrasion marks and piling of paint must be recorded.

10. At stations photograph and video of following equipment installation must be taken:
- i) Panel and Block instruments from all the sides
 - ii) Sealing of Relay Room and Block instruments after the incidence.
 - iii) Electronic Key Transmitter, Box for Emergency Key, Cable Termination Boxes in L.C gates.
11. At locomotive cab, photograph should be taken of Control Stand including Positions of brake handle etc.
12. In guard's cabin, photograph should be taken of emergency brake application handle/lever.
13. In case of fire, detail photography of affected site covering as applicable, parcel consignment, any *flammable* material, electrical wiring, switches & panels etc. must be done.
14. While taking photographs of dead or injured, if required, care should be taken to maintain human decorum. Photographs of only facial parts be taken for identification purposes. Maximum care must be exercised in cases of female passengers and children.
15. To draw attention to specific location/component, the same *may* be identified by making a circle around it with chalk.
16. Any CCTV recording, if available of accident site or related areas if available, should be taken on possession by safety officials.
17. Above video recordings and photograph should be submitted to accident inquiry committee and should also be uploaded to Sims. The video recordings and photographs should not be shared with press or any other media unless authorized by the competent authority.
18. Video recordings and photograph must be preserved at least till the finalization of DAR cases.
19. Photograph of restoration process can also be taken as required for training purpose.

Chapter-21

GUIDELINE FOR ON BOARD STAFF

A) GENERAL

- i. Ensure full rest before taking over the charges.
- ii. Ensure availability of Torch Light during Night.
- iii. Ensure availability of First Aid Boxing train.
- iv. Guideline of First Aid Instructions attached with this Manual to be followed.
- v. Be a member of the Rescue Team under the guidance of Accident Manager.
- vi. Render First Aid to the injured passengers.
- vii. To look after their comfort both injured and non-injured passengers, physically and mentally keeping the temperament cool.
- viii. Do not leave the accident site without the permission of Accident Manager.
- ix. Do not Pass any misleading information.

B) GUARD

- i. Check the availability of First Box with full components while on duty before starting.
- ii. Ensure availability of other departmental staff booked to work with your train along with their names and possible location of trains.
- iii. Do not take any Alcoholic Drink or any intoxicating elements immediately before duty or while on duty.
- iv. Note the time of accident.
- v. Form a team with different on duty staff and guide them to rescue operation.
- vi. Call for doctor from the passengers with the help of TTE, the team and seek their assistance.
- vii. Seek assistances of the railway men on the Train for rescue operation.

C) CREW

- i. Keep liaison with the guard.

D) TTE

- i. Make a note of doctors travelling by the train with coach and berth No.
- ii. Also note down the list of railway staff travelling on the train, if possible.
- iii. Do not misbehave with passengers in any respect and under any situation.
- iv. Report to the guard to assist him in rescue operation.
- v. Hand over the copy already made doctors' list who are travelling by the train to the guard and arrange inform them and insist them for rescue operation.
- vi. Identify the Railway staff of the train from the reservation chart to assist in rescue operation.
- vii. Wear & distribute Arm Band to staff engaged in rescue operation, if available.

E) AC COACH ATTENDANT

- i. Meet the Accident Manager and be a member of the rescue team.

F) PANTRY CAR/CATERING STAFF

- i. Check availability of drinking water.
- ii. Arrange supply and distribute food, snacks, beverages etc., if available to the injured passengers.
- iii. Be a member of the rescue team.

G) TRAIN EXAMINER

- i. Be a member of the rescue team.

H) SAFAIWALA

- i. Assist to rescue trapped and injured passengers under the guidance of Accident Manager.
- ii. Keep the area where the First Aid to be given and injured passenger are treated in clean condition.
- iii. Remove the Dead Bodies as and when required and cover them properly with the advice of medical person.

I) SECURITY

- i. Look after the Dead Bodies.
- ii. Look after the luggage and belongings of the passengers of the ill-fated train. They should take control of the site for protecting unclaimed property and Railway property.
- iii. The concerned Post Inspector of RPF having jurisdiction will immediately inform the matter to his Sr.DSCs/ DSCs, Divisional Security Control Room and liaise with local Police, GRP and Civil Administration for early reaching at the site for protection, etc.

Chapter-22

PASSENGER CARE

GENERAL:

- i. Assistance to passengers and their relatives is of utmost importance in relieving them of some of their misery.
- ii. Injured passengers and their relatives are to be treated with utmost courtesy, concern and sympathy to alleviate their trauma and discomfort.
- iii. For dealing with relatives arriving from far flung corners of the country, staff fluent in the local language of the place from where the train originated should be used as interpreters.
- iv. Commercial supervisors & Welfare Inspectors should be assigned to talk to injured passengers to ascertain from them whether they wish to call relatives.
- v. Injured passengers should thereafter be provided with either mobile or BSNL STD phones in order to enable them to speak to their relatives.

HOSPITALISATION OF THE INJURED:

- (i) The injured persons other than Railway beneficiaries should be shifted, as far as possible, to the nearest non railway hospital except in the following circumstances:
 - a. Non availability of non-railway hospital.
 - b. Want of accommodation in the non-railway hospital.
 - c. Unsuitability of non-railway hospital to render first aid.
 - d. Difficulty of transport.
 - e. Serious condition of the patient.
 - f. Another circumstances considered justifiable by the attending medical officer. The injured persons other than Railway beneficiaries, when admitted in a railway hospital should be transferred ton on railway hospital as a when there condition permits.
- (ii) In case there are no railway hospitals nearby, then they are to be admitted in the nearest Govt. hospitals.
- (iii) When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient, injured maybe taken to a Private Hospital.
 - Where the family of the injured person desires to be provided with a higher class accommodation, the family should give writing to get the injured admitted in that hospital as per the extant rule.
- (iv) Each division should make out a working arrangement with private hospitals as may be necessary in areas served by them so that in an emergency injury cases can be referred to hospitals concerned without loss of time.

- (iv) To facilitate matters and to avoid misunderstandings, CMS should draw up a list of such private hospitals bearing in mind Railway and non-Railway hospitals in the vicinity.
- (v) CMS should also settle charges to be paid for such cases for each class of accommodation.
- (vi) Bills by such private hospitals should be submitted through CMS who will certify the correctness of charges payable, before passing for payment by Sr. DFM.
- (vii) Payments to private hospitals under this para can be arranged locally by the Railways and Ministry of Railways approval is not necessary. (Extract of Para 701(1) & Para 712 of Chapter VII of IRMM and Para 1421 of Indian Railway Establishment Manual and M.O.R's letter No. MH 59/MES/96/Medical dated 18/12/1959)
- (viii) When injured are admitted in non-railway hospitals, railway doctors should be deputed to these hospitals to render necessary assistance, including supply of medicines as required which may not be available in these hospitals.
- (ix) They should also carefully monitor the condition of injured and maintain an updated list with all details.
- (x) If more than one hospital is involved, apart from deputing doctors to individual hospitals, a railway doctor should also be deputed to coordinate and maintain centralized updated position.

FACILITIES TO BE MADE AVAILABLE IN HOSPITAL:

- (i) There should be a separate reception counter manned by commercial supervisor or Welfare Inspector at the entry to the hospital for dealing with relatives of patients who arrive.
- (ii) A chart should be displayed at this reception counter indicating ward nos. where accident patients are admitted along with their names, coach no. wise.
- (iii) At the entry to each such ward, a second list should display the name of the patient, coach no. and the bed no. inside the ward.
- (iv) Commercial staff and Welfare Inspector on duty at that hospital should carry a list indicating the name, address and telephone no. of relatives as given by the patient, and whether they have been informed or not.
- (v) Arrangements should be made to inform the next of kin or a relative or friend of the deceased; in case identity of the person involved in accident becomes known. As each relative arrives his name should be marked in the list against the passenger's name.
- (vi) Reception counter should be provided with BSNL telephone with STD facility. There should be 2 mobile telephones for being taking to patients inside wards for making outgoing calls.

- (vii) Complete medical care of all passengers including payment of medical bills till their final discharge should be provided.

COMMUNICATION:

- (i) STD equipped telephone should be made available to passengers to communicate with their relatives.
- (ii) BSNL/Railway Telephones available at adjoining Stations/Cabins/Gates shall be extended to the accident site.
- (iii) PCO telephones and other BSNL phones in nearby localities/villages/towns shall also be extended to the accident site by persuading owners of these phones.
- (iv) Payments for such telephone connections will be made from station earnings.
- (v) Sr. DSTE should hire few mobile phones to meet the need of stranded passengers; wherever cellular phone connectivity is available if the accident happens inside section. Stranded passengers should be permitted to use these phones free of charge.
- (vi) These cell phones should be used to convey information regarding the safety of passengers to their friends and relatives.

ARRIVAL OF RELATIVES:

- (i) After a few hours, next of kin of deceased and relatives of injured passengers start arriving at the accident site.
- (ii) Adequate number of display boards should be available on ARMVs/ARTs for being put up at accident site.
- (iii) By the large these display boards should indicate the direction towards the **Combined Assistance Centre (CAC)**.
- (iv) These indication boards should be displayed near those areas where incoming relatives arrive and congregate.
- (v) Periodic announcements on loud speakers should also be made for guiding them to the CAC.
- (vi) CAC should have different counters for various purposes as detailed below.

TAKING CARE OF RELATIVES:

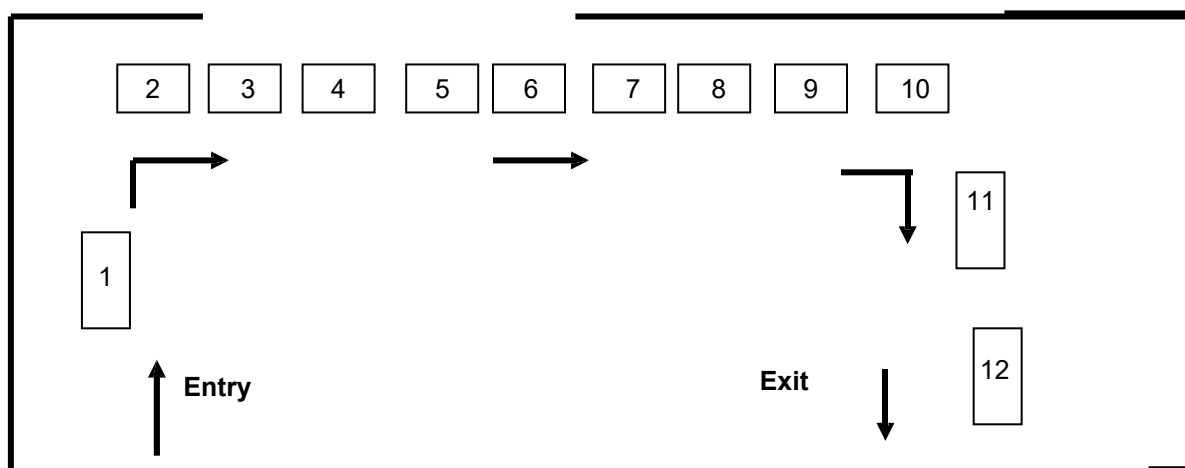
- (i) At CAC, number of commercial supervisors & Welfare Inspector should be available for the purpose of taking arriving relatives to different hospitals etc.
- (ii) After relatives arrive they should first of all go through the reservation charts and locate the name of the passenger.
- (iii) Thereafter if details are available as to which hospital passenger has been admitted then commercial supervisor or Welfare Inspector should accompany him to that hospital.
- (iv) A hired vehicle should be provided for carrying them to various hospitals and mortuary.
- (v) The commercial supervisor or Welfare Inspector should stay with the relative until he has been able to either find the injured passenger or identify the dead body.
- (vi) Thereafter, they should help him in completing all formalities in the CAC.

SINGLE WINDOW CLEARANCE:

- (i) CAC should have provision of single window clearance for all legal formalities & multiplicity of paper work.
 - (a) Reservation chart, for locating the name.
 - (b) List of dead and injured along with name of hospital. The name of passengers involved should be checked up from the list of dead or injured, if available, and their current status informed
 - (c) Counter for providing commercial supervisor or Welfare Inspector as escort along with a vehicle, for accompanying the relative and going around to various hospitals or mortuary.
 - (d) Railway doctor for issue of Medical Death Certificate.
 - (e) Govt. doctor for issue of Post Mortem Clearance, in case the same is necessary.
 - (f) Municipality official for issue of Official Death Certificate.
 - (g) Local police for issue of authority for handing over of dead body.
 - (h) Claims counter - Payment of ex-gratia and issue of Claims Compensation Form.
 - (i) counter for helping performance of last rites in case relatives decide to cremate the body there itself.
 - (j) Pass counter for issue of return journey pass.
 - (k) Return journey facilitation counter will make arrangements for return journey.

- (ii) Counters provided in CAC should have facilities for following items in the given sequence as indicated

DETAIL SCHEMATIC PLAN OF CAC



- | | |
|---|---|
| 1. Commercial –Reservation Chart | 7. Municipality Official–Issue of Official Death Certificate. |
| 2. Medical –List of dead and injured. | 8. RPF/Local Police –Issue of authority for handing over dead body. |
| 3. Commercial –Provision of escort and vehicle. | 9. Commercial –Payment of Ex-gratia, Issue of Claims Forms. |
| 4. Railway Doctor–Issue of Medical Death Certificate. | 10. Commercial –Assistance for performing of last rites. |
| 5. Govt.Doctor–Issue of Post Mortem Report. | 11. Personnel –Issue of Return Journey Pass. |
| 6. CA Can-Charge and Officers. | 12. Operating –Arrangement for Return Journey. |

STAY OF RELATIVES OF DEAD AND INJURED:

- (i) Commercial supervisor or WLI deputed with relatives should also arrange for their stay and accommodation.
- (ii) Depending upon the need, accommodation in hotels/dharamshalas would be hired for accommodating passengers.
- (iii) Arrangements should be made for their meals etc. Contract should be given for providing cooked food to relatives.

PERFORMANCE OF LAST RITES:

- (i) Inman cases relatives decide to perform last rites at the place of accident itself instead of taking the body back to their native place.
- (ii) This is mostly on account of :
 - Bodies being mutilated,
 - Bodies being in a state of decomposition,
 - Native place being far off,
 - For overcoming logistic problems of taking the body back.
- (iii) In such cases railways should render appropriate assistance to relatives for performing last rites.
- (iv) Railways should locate:
 - The nearest cremation or burial ground as the case may be.
 - Shop keepers who supply necessary material for funeral rites.
 - Priest for performing the ceremony.
- (v) The above information would be conveyed to relatives and transport provided for carrying the body.
- (vi) Above duties are to be performed by Personnel department.
- (vii) Commercial supervisor or Welfare Inspector who has been deputed for relatives of a particular passenger should help them out in this endeavor.

DEPARTURE OF RELATIVES OF DEAD AND INJURED:

- (i) CAC should have counters for helping relatives regarding their return journey.
- (ii) Personnel branch staff at the CAC should be available for issuing complimentary passes for their return journey.
- (iii) Reservation of berths should be provided on trains. Such reservation should be provided only from the accident site onwards.
- (iv) Extra coaches should be attached to trains going to these destinations for the next 2 or 3 days. These extra coaches should be brought in locked condition from the originating station.
- (v) Reserved space in luggage portion of SLRs for some of them to carry back bodies in coffins etc., in case they so desire.

Chapter-23

MEDIA MANAGEMENT PLAN

OBJECTIVE:

- (i) Topmost the public with factual information pertaining to the accident.
- (ii) To convey certain information which is of use to passengers?
- (iii) To convey specific information which is of use to relatives of dead and injured passengers
- (iv) To create a positive public opinion.
- (v) To create a healthy relationship with the press and electronic media.

DUTIES OF PR ORGANISATION:

- (i) CPRO / PRO and his team will collect whatsoever information is available from Divisional Control Office and first information would be released to the media within 60 minutes of intimation of the accident.
- (ii) The information shall include telephone numbers of Helpline Enquiry Booths.
- (iii) CPRO/PRO and the entire PR organization should proceed to the accident site in the 1st Special train.
- (iv) Number of photographers with digital cameras and video photographers should also be taken along to the accident site for taking still/video photographs of affected rolling stock, & other vital clues including condition of track in consultation with Officer In charge at site.
- (v) PRO will be available in the **Unified Command Centre (UCC)** during the day.
- (vi) Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.
- (vii) PRO will organize Press Briefings at fixed timings.
- (viii) PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

SPOKES PERSON:

- (i) Only GM, DRM, CPRO, Chief Emergency Officer in Headquarters' Emergency Cell and Divisional Emergency Officer in Divisional Emergency Cell are competent to interact or give interview to press and electronic media.
- (ii) Apart from the above, any other officer authorized by GM is competent to interact or give interview to press and electronic media.
- (iii) Railway's endeavour shall be to ensure that only factually correct and confirmed information is relayed to the media.

- (iv) No inflated or exaggerated version of any fact should be relayed to the media.
- (v) Unconfirmed news having no authentic source shall not be relayed to media.
- (vi) No railway man shall express or voice any criticism, or express his personal opinion or views about the accident, at any point of time.

INFORMATION TO BE RELAYED TO PRESS AND ELECTRONIC MEDIA:

Information to be given to media can be broadly segregated into following categories:

Accident:

- (i) Nature of the accident – date, time, place, exact location, train no., number of coaches involved etc.
- (ii) Details of how the accident most probably occurred.
- (iii) Prima-facie cause of the accident will be relayed to Media only with the approval of GM.
- (iv) Sabotage, even if suspected, will not be relayed to Media, without approval of GM.
- (v) Periodic reports regarding progress of rescue and relief work.
- (vi) Expected date and time of restoration.

Uninjured Passengers:

- (i) Steps being taken to provide beverages, refreshments and first aid treatment for unaffected passengers.
- (ii) Steps being taken by railways for clearance of unaffected passengers.
- (iii) Expected time of departure of front portion of accident involved train.
- (iv) Its likely time of arrival at the destination.
- (iv) Expected time of departure of rear portion of accident involved train.
- (v) Its diverted route and likely time of arrival at the destination.
- (vi) Incise empty coaching rakes have been arranged, then details of the same.
- (vii) Road bridging being done, labourers provided for transshipment of luggage.

Dead and Injured passengers:

- (i) Steps taken by Railways to render immediate medical attention.
- (ii) No. of injured passengers rescued.
- (iii) Break up of their injuries:
 - Grievous,
 - Simple,
 - Trivial.
- (iv) Names of hospitals where injured are being treated.

- (iv) Approximately how many patients have been admitted in each of these hospitals?
- (v) Names of injured passengers.
- (vi) Communication facilities like cell phones, STD phones provided at these hospitals.
- (vii) Payment of ex-gratia.
- (viii) Facilities offered to relatives of victims, including free pass for journeys.
- (ix) Special trains being run for bringing relatives of dead and injured.
- (x) Number of dead bodies recovered and number of bodies identified.
- (xi) Identification of dead bodies takes much longer since either
 - they were travelling alone, or
 - their companions are injured and are not in a position to identify them, or
 - Their companions have also perished.

Under such circumstances it is possible to identify dead bodies only when relatives come from their home own. This aspect of identification of dead bodies and reasons for delay should be explained to the media.

Helpline Enquiry Booths:

- (i) setting up of Helpline Enquiry Booths.
- (ii) Details of Helpline Enquiry Booths as follows:
 - Stations where these have been opened.
 - Telephone Nos.
 - FAX Nos.
 - Internet address of Nearest Emergency Relief Center.

Train Services:

- (i) Details of train operation with regard to:
 - Diversion,
 - Regulation,
 - Rescheduling,
 - Short termination,
 - Cancellation.
- (ii) Running of 2 passenger specials for carrying relatives to the site of accident.
- (iii) These trains will be started from the originating and destination stations of the accident involved train and will be given same stoppages as the accident involved train for picking up relative's enrooted.
- (vi) Expected departure time of relative's special from their originating stations.

- (viii) Refunds being granted in Helpline Enquiry Booths for passengers whose journey have been interrupted.

CASUALTY FIGURES:

- (i) In all accidents, as long as rescue and relief work continues, there is always a difference between casualty figures given by railways and casualty figures quoted by the Media. The reason for this difference is that railways give casualty figures based on actual number of dead bodies recovered; whereas Media estimates casualty figures based on the damage visible and likely final tally.
- (ii) During Press Briefings, this point should be clarified that at that point of time so many bodies have been recovered.
- (iv) However, it should also be made clear that casualty figures are likely to go up since rescue work is still continuing.
- (v) Assessment regarding likely number of deaths and injuries may also be made if considered necessary. Such an assessment should be based on :
 - Total number of coaches involved.
 - Number of coaches searched.
 - Number of coaches yet to be dealt with.
- (vi) Particular reference should also be made to coaches that are crushed or that have climbed on top, and have not yet been searched.
- (vii) For example, the media can be informed that as of 13/- hrs. 2 coaches have been dealt with and no. of bodies have been recovered. 8 more coaches are still to be searched and casualties are likely to go up.

PRESS BRIEFINGS AT ACCIDENT SITE:

- (i) CPRO/PRO on arrival at accident site shall collect factual information from the Officer In charge of Site and relay the same to Media personnel at site and also to Divisional Emergency Officer in the Divisional Emergency Cell. Thus, an on line communication channel will be established to keep media informed of all important details.
- (ii) The first Press Briefing will be held within one hour of PRO's arrival at site. Subsequent briefings will be held according to the schedule given below.
- (iii) PRO should be available in the UCC during Press Briefings.
- (iv) There should be fixed time Press Briefings so that there is no confusion regarding different versions given to separate channels at various points of time.
- (v) Simultaneous Press Briefings should be held at accident site as also at Divisional Emergency Cell as prefixed timings given below, so that the same version is given by all concerned.
- (vi) Information to be given to the media will be of -/30 hrs. earlier. For example the media briefing held at 7/30 hrs. Will convey all information as at 7/- on that date.
- (vii) On the first two days, there should be 6 media briefings per day. These should be scheduled at the following timings :
 - 7/30 hrs.
 - 10/30 hrs.

- 13/30 hrs.
- 16/30 hrs.
- 19/30 hrs.
- 22/30 hrs.

(viii) Thereafter, for the remaining days, there should be 3 media briefings per day. These should be scheduled at the following timings:

- 7/30 hrs.
- 13/30 hrs.
- 19/30 hrs.

(ix) The priority of information release to various media will be as under:

- TV Channels.
- Agencies – UNI, PTI, Varna, Bhasha.
- Print Media.

(x) Convenience and conveyance of media shall be taken care of by PR personnel with assistance of Commercial representatives at site. Media persons should be conducted to hospitals where injured are being treated.

(xi) Commercial department should ensure that list of passengers who traveled by the accident involved train along with list of dead and injured in the accident reach PR officials at the earliest.

Chapter-24

Golden Hour

If a critical trauma patient is not given definite medical care within one hour from the time of accident, chances of his ultimate recovery reduces drastically, even with the best of Medical attention thereafter. This one-hour period is generally known as the “Golden Hour”.

During this Golden Hour period, every effort should be made to:

- (i) Render definite medical care to the extent possible preferably by qualified Medical Practitioners.
- (ii) Stop bleeding and restore Blood Pressure.
- (iii) Persons under shock should be relieved of shock immediately.
- (iv) Transport casualties to the nearest hospital so as to reach within this Golden Hour period.

For being effective, any Disaster Management System should aim at recovering as many critical patients as possible and rushing them to hospital within this period.

Disaster Syndrome:

A victim's initial response following a Disaster is in three stages, viz. Shock stage, Suggestible stage and Recovery stage. These initial reactions are called Disaster Syndrome.

- (i) **Shock stage:** In which victims are stunned, dazed and apathetic.
- (ii) **Suggestible stage:** In which victims tend to be passive but open to suggestions and willing to take directions from rescue workers and others.
- (iii) **Recovery stage:** In which individuals may be tense and apprehensive and may show generalized anxiety.

Three Different phases of Disaster Response:

Disaster Response in case of a Railway accident consists of three phases. These three phases are determined both by the time factor, as also by the extent of specialized assistance available.

Firstly, it begins with the spontaneous reaction of men available on the train at the time of the accident. Thereafter, the second phase continues with contributions made in rescue and relief work by men and material available locally in nearby areas of the accident site. The third and longest phase consists of meticulously planned action by trained DM teams who arrive at the accident site to carry out rescue and relief operations.

The first phase, which is of shortest duration, lasts for about half an hour. It is an amateurish, poorly equipped effort, but is nevertheless the most important phase. In most cases, this is the only help available for a major part of the '**Golden Hour**'.

The second phase, which is of 2-3 hrs. Duration, is comparatively less amateurish and much better equipped. Their contribution is vital since the 'Golden Hour' period comes to an end during the

working of this group. How many critically injured passengers can finally be saved depends solely on the efficiency of this group.

The last and final phase of Disaster Response by DM team continues. It comes to an end not only with the restoration of traffic but also with the departure of most relatives and next of kin from the accident site and disposal of all bodies. Few of the grievously injured that continue to be hospitalized for comparatively longer spells are taken care till they are released from Hospital.

With the above scenario in mind, it is necessary to take firm and quick decisions to save lives and property. To achieve these objectives, Railways have a well-defined action plan that is successfully executed by the coordinated efforts of different disciplines, all of who function as a team. The three groups which are active during the above mentioned three phases of Disaster Response may be classified as follows: -

- i) Instant Action Team (IAT)
- ii) First Responders (FR)
- iii) Disaster Management Team (DMT)

Chapter-25

DELEGATION OF POWERS (WORKS /STORES MATTER)

WORKS MATTER

SI No.	Nature. Of power	PHOD/CHOD/HOD	DRMs/ADRM/ SAG	Divisional Officers SG/JAG	REMARKS
40	Hire of Plant and Machinery from outsider or Govt.Body in case of emergency.	PHOD only Full Power	DRM/CWM /(SAG) Full Power	SG/JAG up to Rupees 50,000	Finance Concurrence is necessary for transaction of more than Rupees 50,000
41	Hiring of Truck /Mini Truck on regular basis or on a case to case basis.	PHODs for extra Divisional unit for <u>construction</u> Full power with finance concurrence subject to certificate that no Railway Vehicle is available.	Full power with finance concurrence subject to certificate that no Railway Vehicle is available.		Approval of DRM should be obtained only when ADRMs are not Posted in the Division.

STORES MATTER

SI No	Nature of Power	DRM/ADRM/SAG	REMARKS
6(A)	Purchase by Field Officer Local Purchase Stock item and non-stock item by Store Officer	All Store Officers Rs. 1 Lakh per case	PAC spares for M&P items to be procured from firm or their authorize agent can be purchased up to Rupees 20,000/- in value under the Local Purchase Power by Divisional Store Officer/Depot Officer.

STORES MATTER

SI No	Nature of Power	PHOD/CHOD/HOD	DRMs/ADRM/ SAG	REMARKS
10	Expenditure at accident site or damages due to floods, breaches cyclones earth quakes, bandh/hartal/strike etc.	Full Power	Full Power	Finance concurrence is not necessary .

Guideline for commercial department at the site of accident to deal with affected passengers

Ex – gratia Payment

- I The amount of ex-gratia relief payment to be paid to the dependents of dead or injured passengers involved in Train Accidents as defined under sections 124 of the Railway Act, 1989.**

SL	Type of accident	Amount of ex-gratia for death	Amount of exgratia for Grievous injury	Amount of Exgratia for simple injury
1	In case of train accident (as defined under section 124 of RA)	Rs. 50000/-	Rs. 25000/-	Rs. 5000/-

- II. The amount of ex-gratia for death/injured in untoward incidents, as defined under section 124-A of the Railway Act, 1989.**

SL	Type of accident	Amount of ex-gratia for death	Amount of exgratia for Grievous injury	Amount of Exgratia for simple injury
1	In case of untoward accident (as defined under section 124 of RA)	Rs. 15000/-	Rs. 5000/-	Rs. 500/-

- III. The amount of ex-gratia relief payment to be paid to the road users who meet with an Accident at Manned Level Crossing Gate due to Railways prima facie liability.**

SL	Type of accident	Amount of ex-gratia for death	Amount of exgratia for Grievous injury	Amount of Exgratia for simple injury
1	In case of accident at MLC (as defined under section 124 of RA)	Rs. 50000/-	Rs. 25000/-	Rs. 5000/-

- No. ex-gratia is to be given for trespassers, persons electrocuted by OHE & road users at Unmanned Level Crossings. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995).
- . Ex-gratia is admissible for Railway servants killed or injured by moving train while performing their duty. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995).
- . Manner of arranging ex-gratia to the victims:

Payment should be sanctioned /arranged preferably on the spot by senior scale or higher official nominated by the General Manager. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995)

DISASTER MANAGEMENT SOP:

Based on Recommendation of High Level Committee's Report on Disaster Management Delegation Of Power for hiring of vehicles for rescue operations, procurement of live saving drugs from the market by Medical Officers at the site, requisitioning medical assistance from civil side, withdrawal of money from station earnings especially cash impressed with ART / ARME in charges, repairs and maintainance of break down cranes, hiring of cell phones and items required for quicker rescue operation such as temporary sheds, cots and beddings, plastic / polythene, purchase of ice / drinking water and other items as deemed necessary for emergent relief operations has been delegated to divisions and included in Unified Schedule Of Powers – Miscellaneous. This may be included in divisional Disaster Management Plans for ready reference.

Commercial Department

Commercial Dept. will continue to take action as detailed earlier.

Medical Department

- i. The Medical team wills accompany each of the relief train ordered. It will carry with them at least 50,000 chlorine tablets and 200 kgs. of bleaching powder for distribution at various stations.
- ii. The medical team will attend to stranded passengers and Railway personnel and their families for any ailment. For this purpose sufficiently wide portfolio of medicines will be carried in relief trains for various ailments in sufficient quantity.

MOVEMENT OF RELIEF MATERIALS

CPTM will read the special train for carrying the relief material. Wide publicity shall be given in Press and Media to attract voluntary organizations, individuals, NGOs, medical practitioners etc. to avail the service. The composition and timings will be planned and publicized.

Chapter-26

REFERENCE LETTERS

Reference - 1

**GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
(RAILWAY BOARD)**

No. 2002 / Safety-1/6/6.

New Delhi, dt. 15-06-2004

**General Managers,
All Indian Railways**

**Sub : Empowering Zonal Railways to requisition
Helicopter/aero plane at the time of severe
Accident.**

**Ref. : Board's letter No. 36/Safety-1/24/47
Dt. 13-03-87 & 19-07-89.**

Zonal Railways have been delegated powers to requisition helicopter/aero plane for expeditious action in the event of serious accidents vide Railway Board's letter under reference. The subject matter has been reviewed by the Board and the following revisedare delegated to the zonal Railways.

- (i) GM/s DRM/s have been delegated the powers to rescue helicopter/aeroplane to reach the site of serious accident for rescue operation expeditiously. In addition powers are also delegated to requisition air support to dispatch the rescue teams to the site of the accident.

It is difficult to stipulate exactly the circumstances under which they may exercise these powers; it has been decided to leave this to the discretion of GMs/DRM/s. However, broadly these may cover the following type of cases:

- (a) Where more than 10 casualties (deaths-cum-serious injuries) are feared and it is difficult or these officers to reach the site within reasonable time ;
- (b) Where heavy damage is caused to railway installation in sensitive and tension filled areas (e.g. wreckage of track, bridges etc. through bomb blast, other means of sabotage, etc.);
- (c) Where public reaction in case of late arrival of senior officers at site is likely to be highly adverse.

Normally, in case of an accident only one helicopter should be requisitioned by a Zonal Railway, except when there is a serious passenger train accident involving

several casualties when it is essential for both the General Manager and the Divisional Railway Manager to reach the site at once to satisfy the public and the

-Press. However, for dispatching the rescue teams to the site of the accident, separate helicopter/aeroplane may be requisitioned, if so needed.

The GMs/DRMs may exercise the above powers personally and may not be delegate these powers.

- (ii) Zonal Railways are further empowered to requisition helicopter/aeroplane to evacuate injured and dead the event of serious accident. GMs may personally exercise these powers and may not delegate these further.

The above instructions on the subject supersede all the previous instructions issued vide above referred letters.

This issue with the concurrence of the Finance Directorate of the Ministry of Railways.

Amitabh
Director, Safety
Railway Board

No. 2002/Safety-1/6/6

New Delhi, dt. 13-06-2004

Copy forwarded for information to the FA & CAOs, all Indian Railways.

Amitabh
Director, Safety
Railway Board

No. 2002/Safety-1/6/6

New Delhi, dt. 13-06-2004

Copy forwarded for information to the Deputy Comptroller and Auditor General of India (Railways)

(with 40 spares).

For Financial Commissioner/Railways

Copy to F(X) II Branch.

Reference - 2

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**(RAILWAY BOARD)
No. 2002/Safety-I/6**

New Delhi, dt. 5-12-2006

**General Managers
NCR/Allahabad
All Indian Railways**

**Sub: Requisitioning of Indian Air Force Aircraft/Helicopter by Zonal Railways
in case of serious Railways accident/natural calamities.**

Doubts have been raised from time to time by the Zonal Railways regarding standing instructions on the above matter.

The extracts of Air Force instructions No. 9/83 regarding Regulations Governing Flights and Airlifts in IAF Aircraft within Indian Territory is reproduced as under:

Para 9 (a): The use of IAF aircraft for civil agencies may be authorized by the Chief of the Air Staff on payment at rates when will be fixed by the Ministry of Finance (Defense). Such Flights may be provided on written demand for work like aerial photography, survey and other purposes, survey of air routes, carriage of mail, drop of supplies, carriage of urgently required stores, leaflet droppings, relief and reconnaissance flights, carriage of para military police forces etc. **“Such flights as errand of mercy, on payment at chartered rate without detriment to defense requirements, may also be provided for evacuation of seriously sick or injured civilians from inaccessible areas at the written request of the State Governments, Union Territory Admn. And other Central Ministries Departments as a life saving measures on an undertaking by such authorities that it is neither feasible by them nor any other means of civil air surface transport is available for.....auction and the evacuation by the IAF will be at their risk and cost”**. The necessary of defense may sanction, on payment, urgent movement of civilian Govt. servants, Govt. servant and stores and equipment in IAF aircraft for various Ministries of the Central Government and for the State Government provided aircraft are available without prejudice to service requirements.

Para 9(d) : Station Commanders of an above the rank of Wing Commander may authorize special flights of aircraft under their control to meet written request from Central Ministries/Departments/State Govt./Administration of Union Territories for assistance in any grave emergency or natural catastrophe. They will immediately advice concerned Command Headquarters. Such flights are to be regularized under the authority of the AOs C-in-C Command/Group in due course.

Attention is also invited to Railway Board letter of even number dated 13/15-06-2004 vide which GMs/DRMs have been delegated powers to requisition helicopter/aero plane even from private parties (copy enclosed) to reach the site of serious accident for rescue operation expeditiously and to dispatch the rescue teams to the site of accidents.

Zonal Railways may take note of the above standing instructions and establish coordination with the appropriate Air Force authorities.

Please acknowledge receipt.

Amitabh
Director, Safety
Encl.: As above

Railway Board

Reference – 3

GOVERNMENT OF INDIA (BHARAT SARKAR)

MINISTRY OF RAILWAYS

(RAILWAY BOARD)

No. 2003/Safety (DM)6/3

New Delhi, dt. 05-08-2010

General Managers/

NCR

All Indian Railways including Kolkata Metro

Sub : Assistance of NDMA/NDRF to handle Railway related Disasters

**Ref. : Minutes of the Meeting between Railway Board and
NDMA/NDRF on 26th July, 10 (copy enclosed)**

A meeting under the chairmanship of Shri K. M. Singh, Member, and NDMA with Railway officials was held in NDMA Bhavan, New Delhi on 26th July, 2010 for better coordination and cooperation between NDMA/NDRF and Railways authorities to provide quick and effective response during major Rail accidents, manmade and natural Disasters. The issues discussed and decision taken during the meeting are as under :

- (i) **Mechanism for requisition of NDRF:** The present system of requisition of NDRF by concerned DRM/CSO should continue. However, a written requisition from the Railway Authorities for NDMA/NDRF should be followed for their records.
- (ii) **Training/Exposure of NDRF Team/Officers:** To provide the NDRF personnel a better technical know-how about design of Railway Coaches, it has been decided that modalities should be worked out by the Railways for demonstrating/briefing/training the same to concerned NDRF Battalion at a nearby station.
- (iii) **Regular Coordination meeting between NDRF Battalion Commandants and Railway Safety Officials:** A coordination meeting with officials CSO/DRM should be held once in six months.
- (iv) **Capacity Building of RPF and Railway Doctors:** More and more RPF Personnel should be imparted training at NISA, Hyderabad. Zonal Railways should and their Medical Officers for CBRN Training by NDMA in collaboration with AIMS Trauma Centre, New Delhi.
- (v) **Participation of Mock Exercises:** Railways should carry out mock exercises on train accidents in presence of NDRF Battalion Commandant.
- (vi) **Mobilization of NDRF Personnel and equipment:** CSO will coordinate with concerned Railway officials for arranging transportation of NDRF personnel by coach/special train.

- (vii) **Close communication/Exchange of Telephone numbers of Nodal Officers:**
Important telephone numbers of NDMA Officials, Control Rooms, NDRF Battalions will be provided to each Zonal Railways as and when the same is received from NDMA.

2. Railway should initiate action accordingly. Action taken in each of the items should be apprised to this office.

(Kamlesh Gupta)

Adviser (Safety)

Encl: As above.

Reference - 4

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)
No. 2006/TC-III/27/2**

New Delhi, dt. 20-12-2006

**General Managers (Claims)
All Indian Railways**

Sub: Enhancement of ex-gratia relief in case of passengers who are hospitalized for more than one month as a result of train accidents/untoward incidents.

1. Kindly refer to this Ministry's letter No. 93/TC-III/122/1/ex-gratia dated 26-4-1996, wherein it has, intra-alias been mentioned that the rate of ex-gratia in case of grievous injury will be Rs. 5,000/- (five thousand) irrespective of the period of hospitalization.
2. In partial modification of the above mentioned instructions, it has now been decided by the Board that the new rate of ex-gratia in case of grievously injured passengers who are hospitalized will be as follows :

In case of grievous injury involving hospitalization	Rate of ex-gratia
Upto 30 days of hospitalization	Rs. 5000/- (Rs. Five Thousand)
Up to further six months of hospitalization	Rs.1000/- (Rs. One Thousand) per week or part there of the period for indoor treatment.
Upto further six months of hospitalization	Rs. 500/- (Rs. Five hundred) per week or part thereof the period for indoor treatment.
3. This ex-gratia payment will be exclusively for passengers who are grievously injured in train accidents or untoward incidents as defined under section 123 of the Railways Act, 1989 and stay in hospital as indoor patients.
4. The maximum period for which ex-gratia payment is payable to the grievous injured will be 13 months.
5. The period for treatment as indoor patient for more than 30 days would need to be certified by a Railway Doctor for the purpose of further ex-gratia payment upto the period of 13 months. In case where the injured is taking treatment in other than Railway hospital, the treatment has to be certified by Railway Doctors.
6. Sr. Divisional Medical Officers shall also keep track of such injured person taking treatment in other than Railway hospitals. Sr. DCM/CDM shall keep coordination with Sr. DMO for the purpose arranges payment of ex-gratia every week at the doorstep of injured person. Every care shall be taken by Sr. DCM/CDM to avoid any inconvenience to injured person in such cases.
7. There is no change in other teams and conditions.
8. These issues with the concurrence of the Finance and Health Directorates of this Ministry. Please acknowledge receipt of this letter.

(Pankaj Kapoor)
Executive Director Health (Planning)
Railway Board Railway Board

(B.L. Meena)
Executive Director Public Grievances

Reference - 5
GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2002/TC-III/30/4

New Delhi, dt. 31-10-2007

The General Manager (Claims),

All Indian Railways
Metro Railway, Kolkata
K.R.C.L. New Mumbai

Sub : Cost of shrouds to cover dead bodies.

A proposal to increase the rate of payment for covering and removal of dead bodies from Railway premises has been under consideration of the Board.

Approval of the Ministry of Railways is hereby communicated to the enhancement of rate of payment for providing shroud at the time of removal of dead bodies from the existing rate of Rs.500/- to Rs.700/- or actual expenditure whichever is less, with immediate effect.

This issues with the concurrence of the Finance Directorate of Ministry of Railways.

Please acknowledge receipt.

(Miss SR Sett)
Jt. Director, Traffic Comm. (CI)
Railway Board

Reference - 6

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)**

No. 2003/ Safety (DM)/6/2Pt.

New Delhi, dt. 06-01-2009

**The General Manager /WCR/Jabalpur
All Indian Railways**

Sub: Definition of Railway Disaster and Co-ordination of Disaster Management Plans.

There has been no universal definition of a "Railway Disaster" (or Disaster affecting/involving railways) though some of the zonal railways did attempt to define the same in their respective Disaster Management Plans. These definitions also differ with one another with some linking a railway disaster with number of casualties. Some of the zonal railways have requested this office to clarify as to what incidents should be treated as a "Railway Disaster" and who should be the deciding authority for this purpose.

After considering the latest developments in the field of Disaster Management in the country especially the enactment of Disaster Management Act, 2005, Board has decided to adopt the following definition of railway disaster:

"Railway Disaster is 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 nature 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 Government/Non-government and private Organizations."

Board have also approved the proposal to nominate either GMs, AGMs or CSOs for declaring and untoward incident as Railway Disaster. The preparation of the Disaster management plans on the zonal railways in co-ordination with the different departments or the railway, other Central/State Govt. agencies NGOs, Private agencies, etc. has to be done by the Safety department on the zonal Railway.

With the adoption of the above definition a railway disaster, it needs to be appreciated that not only a serious train accident may turn into a railway disaster if not handled and managed properly, there may be many more railway related events which may not even involve human lives but may turn into disasters for which necessary prevention and mitigation measures are to be taken by the railways beforehand. National Disaster Management Authority (NDMA), the apex body under the Disaster Management Act. 2005, have issued guidelines on the management of earth quakes, cyclones, floods, medical preparedness, chemical disasters, nuclear and biological disasters etc. Which are readily available on the NDMA website. Additional Member (Civil Engg.) has also written D.O. letters to the GMs for preparing the Action Plan for the implementation of these guidelines and to form a High Level Multidisciplinary team comprising of officers from various departments to monitor the time bound implementation of these guidelines.

Necessary monitoring and coordination for the preparedness of the railways for each type of disaster needs to be done by CSOs/Sr. DSCOs on benefit the GMs/DRMs respectively involving officers from other departments for necessary inputs.

Please acknowledge the receipt and advise the action taken on the above.

(Amitabh)

Director (Safety)
Railway Board

Reference - 7

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)
No. E-(MPP)2009/3/1**

New Delhi, dt. 20-01-2009

**The General Managers,
All Indian Railways
Director General,
Railway Staff College, Vadodara.**

Director

**Indian Railways Institute of Transport and management,
Manak Nagar, Lucknow.**

**Jagjivan Ram RPF Academy,
Lucknow.**

Sub: Disaster Management Training.

Subsequent to enactment of the Disaster Management Act, 2005 and the creation of gained high priority in the country. As per provisions of this Act, all Central Ministries/Departments strengthen and upgrade its set-up in their respective sphere of working. Indian Railways have already taken several initiatives in this direction. However there has been a felt need for greater integration of disaster management preparedness into developmental planning, leveraging the strengths of other non-railway agencies and to harness the availability and strengths of railway on-board staff who are the first railway responders during any eventuality.

With this in view, Board have decided to revamp the training on disaster management being imparted to various tiers of railway officials through railway training institutes as indicated below :

S.N.	Catgories of Officials	New Training methodology and schedule
1.	Level Management (GMs, PHODs, DRMs and other SAG Officers)	3-days Disaster Management Module are to be delivered at RSC/Vadodara and IRITM/LKO one every 3 months as per annexure 1. Frequency of Training : Once every five years for SAG Officers and above.
2.	Middle level Management (SG & JAG Officers)	Some of the latest and relevant topics are to be included. The AMP and MDP programmers being delivered at RSC/ERC as per annexure 2. IRITM, LKO WILL also deliver special module module being developed by them @ one every month. Frequency of Training :

		Every SG/JAG Officers need to undergo the module once every five years either at RSC as regular MDP/AMP course or special module at IRITM.
3.	Level Management (SS & JS Officers including serving Group B Officers).	Disaster Management Training to be imparted at IRITM/LKO on the topics @ one course every month as per annexure 3. Frequency of Training : Once every five years.
4.	Prbationers and Group B Officers attending induction courses	Topics as per annexure 4 are to be covered during the regular training programmed at RSC/Vadodara. Frequency of Training : As part of the course.
5.	Supervisors of all frontline departments (Mechanical, Electrical, Egg. S & T, Traffic Comma. & Opt.)	Topics as per annexure 5 are to be covered during the one week special course at ZRTIs @ one every month. Passing this course is compulsory for promotion to the level equivalent to Section Engineer and above. Frequency of Training : Once every five years.
8.	Disaster management team of RPF staff and other RPF personnel associated with relief rescue operations.	As the recommendation No. 46 of HCL on disaster management there should be a disaster management team of RPF on each division comprising about 15 men in different ratios. Such teams should be trained in providing necessary support on relief rescue operations. The existing 5 day training module should be appropriately revised to make it suitable to achieve the above objective. Each of the above teams should be trained on this module at RPF Academy at Lucknow. In addition training module may be appropriately developed separately for RPF Officers and staff and should be imparted at RPF Academy at Lucknow. The respective training modules should include role of RPF at the accident site, security at the railway premises like railway stations, trains etc. Frequency of Training : Once every three years for disaster management team of RPF. Once every five years for other RPF officers and staff.
6.	Railway Staff on board Passenger for carrying train (TS, Dy. TS. TTEs and catering staff of commercial department, Coach attendants and AC Mechanics from Electrical	Disaster Management being a multidisciplinary effort during field operations, training in groups of such on board staff is more desirable and efficient than training them category wise. Role of on board railway staff has been a matter of great criticism in the serious train accidents. On board staff is the first railway representatives to respond to any untoward incident

	Departments, some of the selected coach cleaners of Mechanical Departments, some of the RPF escorting staff and catering staff of contractor wherever out-sourced).	and their empowerment will improve railway response in a big way .Such staff is to be trained in appropriate multidisciplinary groups at such locations in the divisions where there is concentration of such staff, to obviate the need for their hostel accommodation non-availability for longer period etc. such training can be imparted at the selected country-wide locations to cover maximum number of staff in short period of time. This training can also be imparted in the Customer Care Institutes. Only select staff of Mechanical, Electrical (AC),RPF is to be imparted this training who are deputed to escort trains. This training will be made mandatory in a phased manner for any staff to go the board a passenger train. The staff of catering contractors also to be imparted this training in phase 2 to leverage their physical presence. Topics to be covered under this training are at annexure 6. Frequency of Training : Once every three years.
7.	Nominated ARMV and ART staff of Mechanical and Medical departments.	Composite training of Mechanical and Medical staff for relief and rescue operations is planned to be given at upcoming Disaster Management Railway Institute at Bangalore. Such staff is to be trained at STC/Bangalore under SWR, who are also setting up disaster management training module, to augment and their training will such time regular DM institute carries the existence. Facilities at STC/Kharagpur may also be utilized for such training. Doctors and paramedics nominated for ARMVs and other rescue operations should be exclusively trained on trauma care management either at some specialized institution or in-house. Frequency of Training : Once every three years.

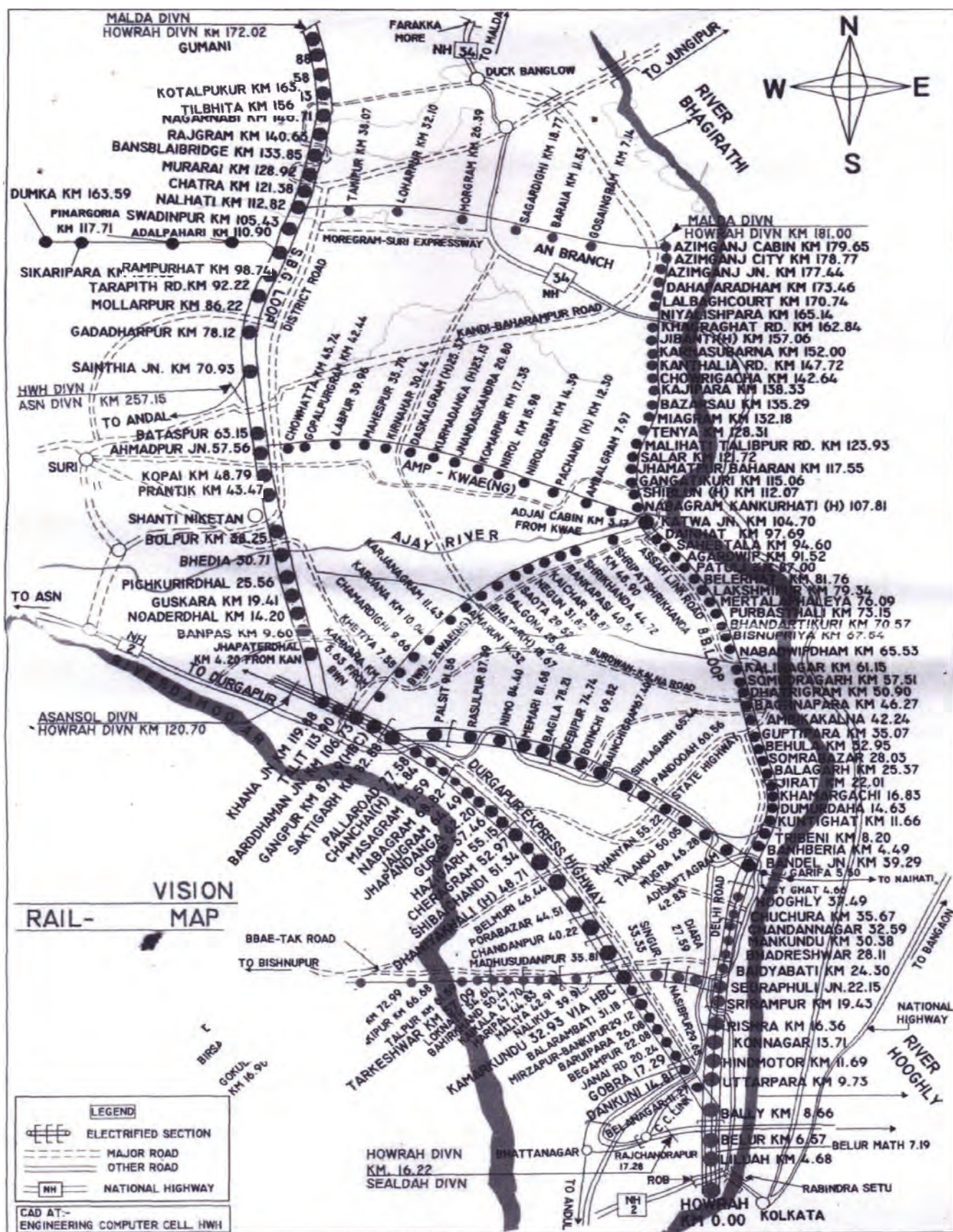
Zonal Railway & Training institutions are requested to take immediate action on the above and confirm its implementation for the information of the Board.

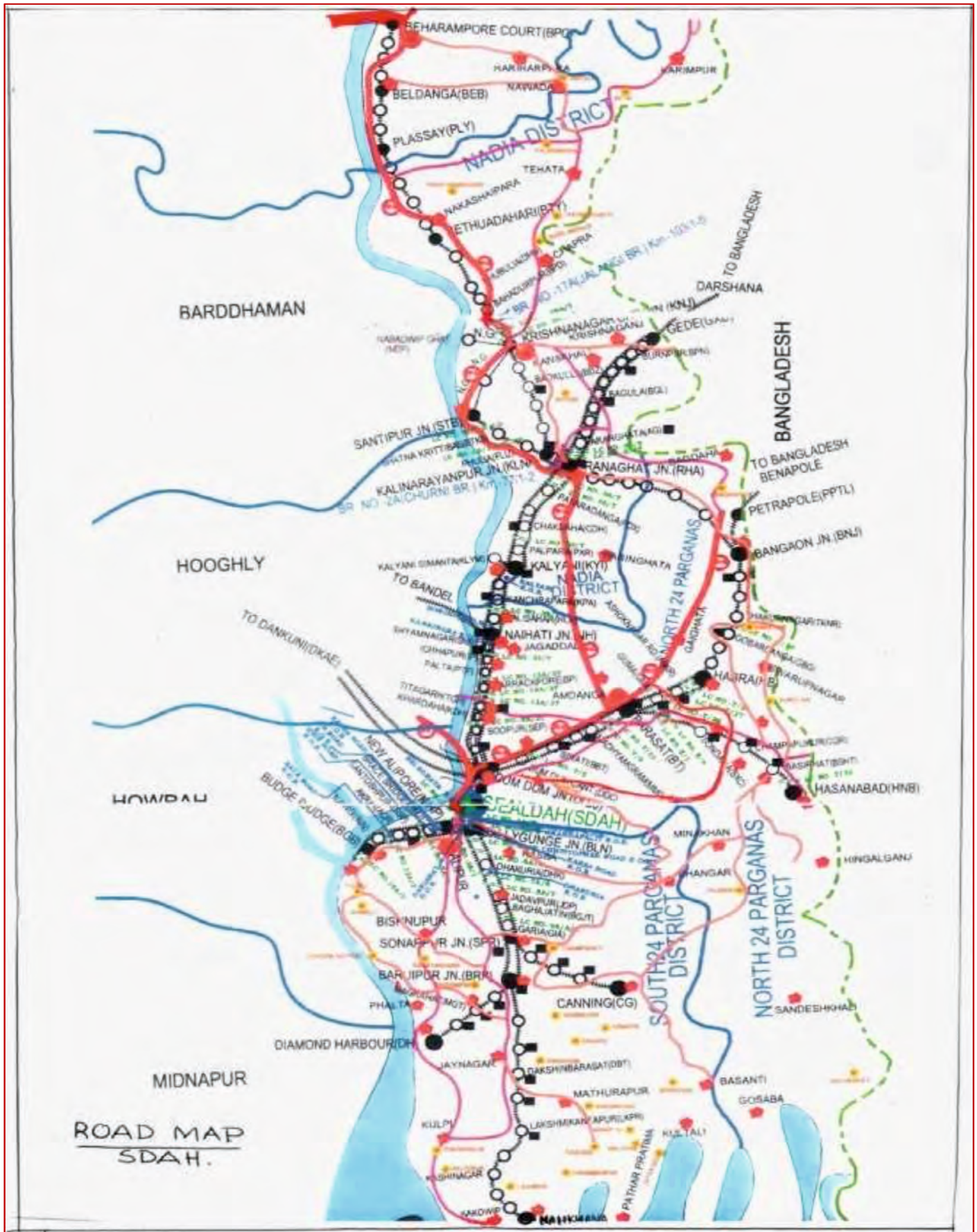
Encl. : As stated

Rajiv Kishore

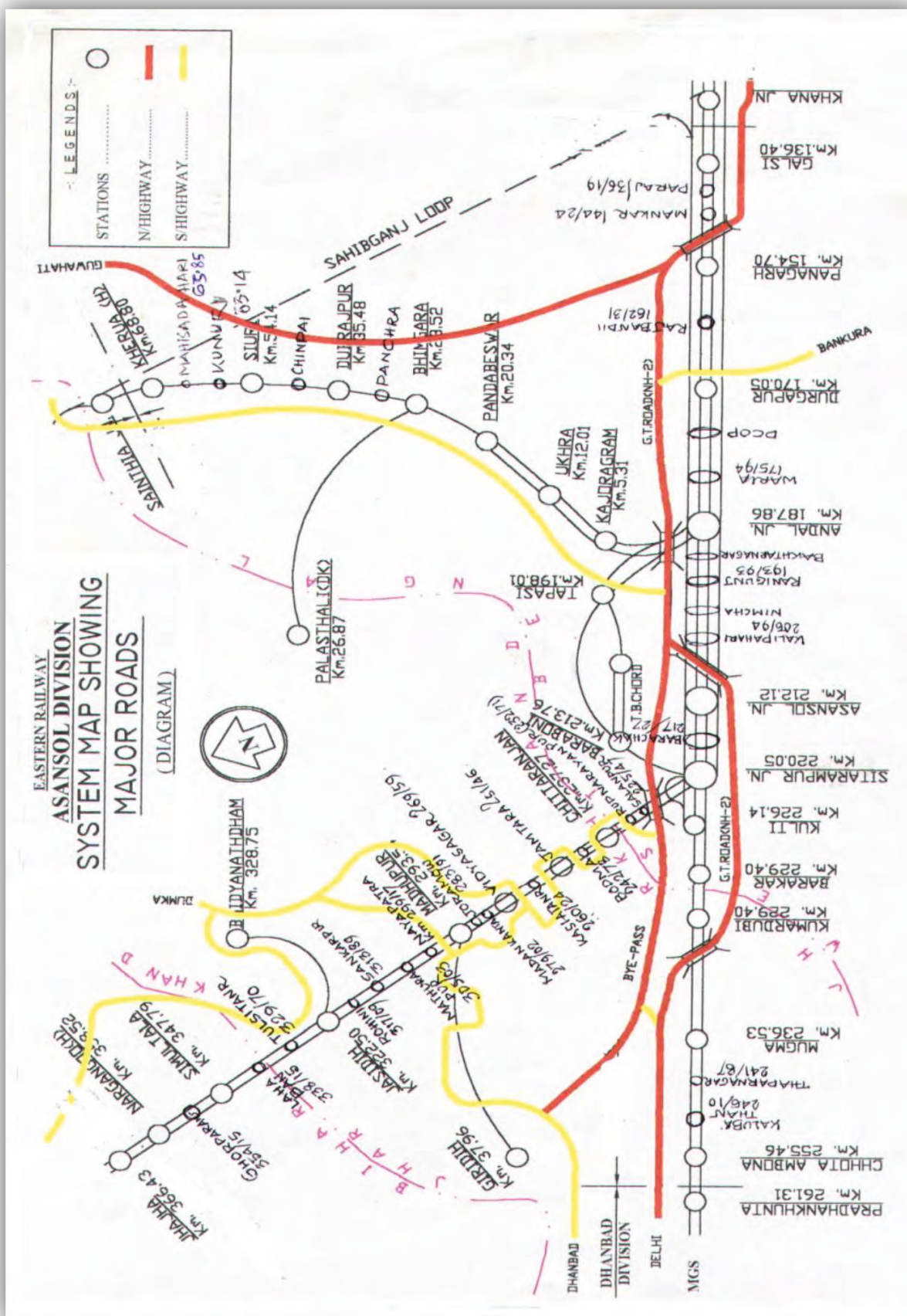
Director (Man Power Planning)

Railway Board

HWH
DIVISION

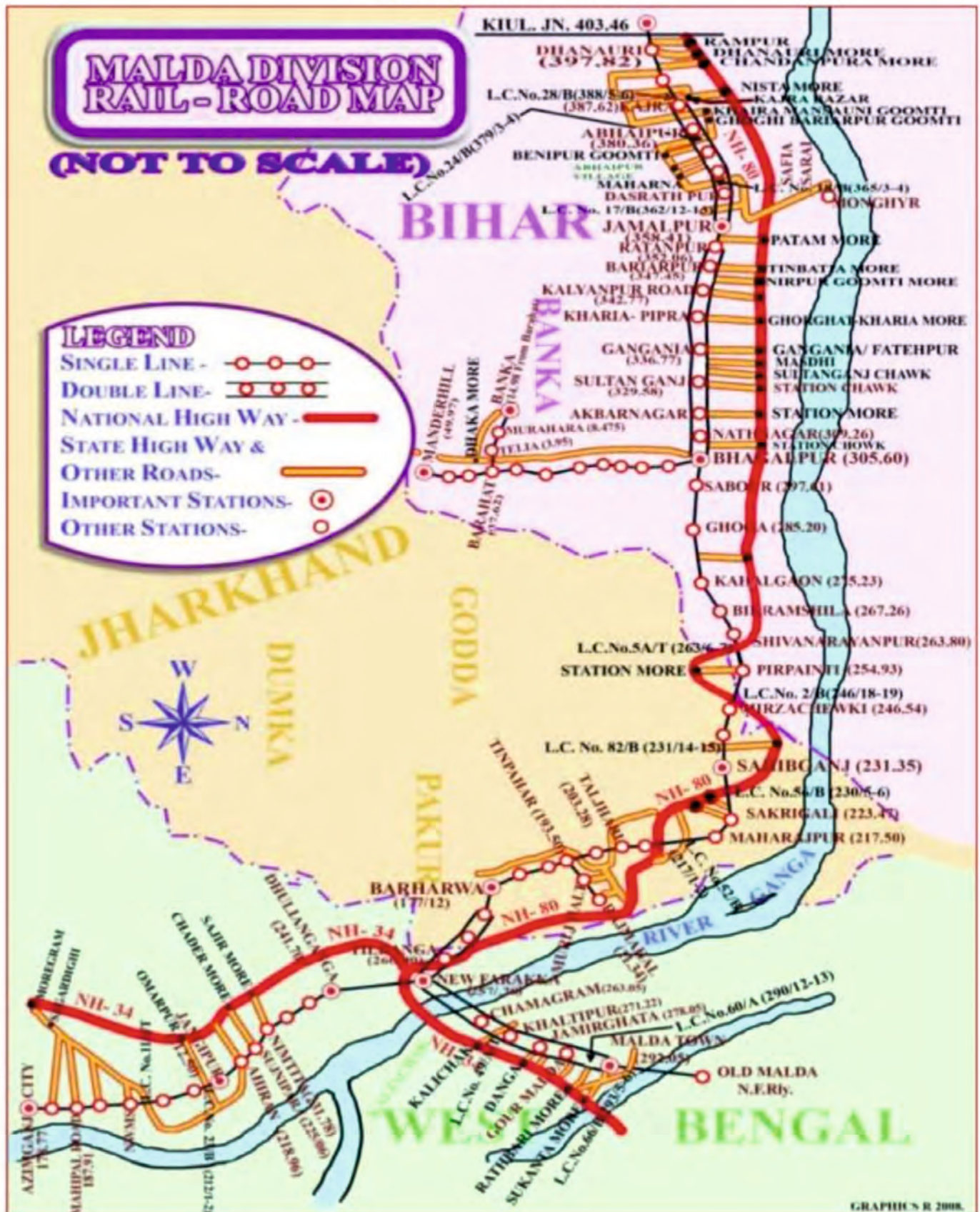


ASONSOL DIVISION



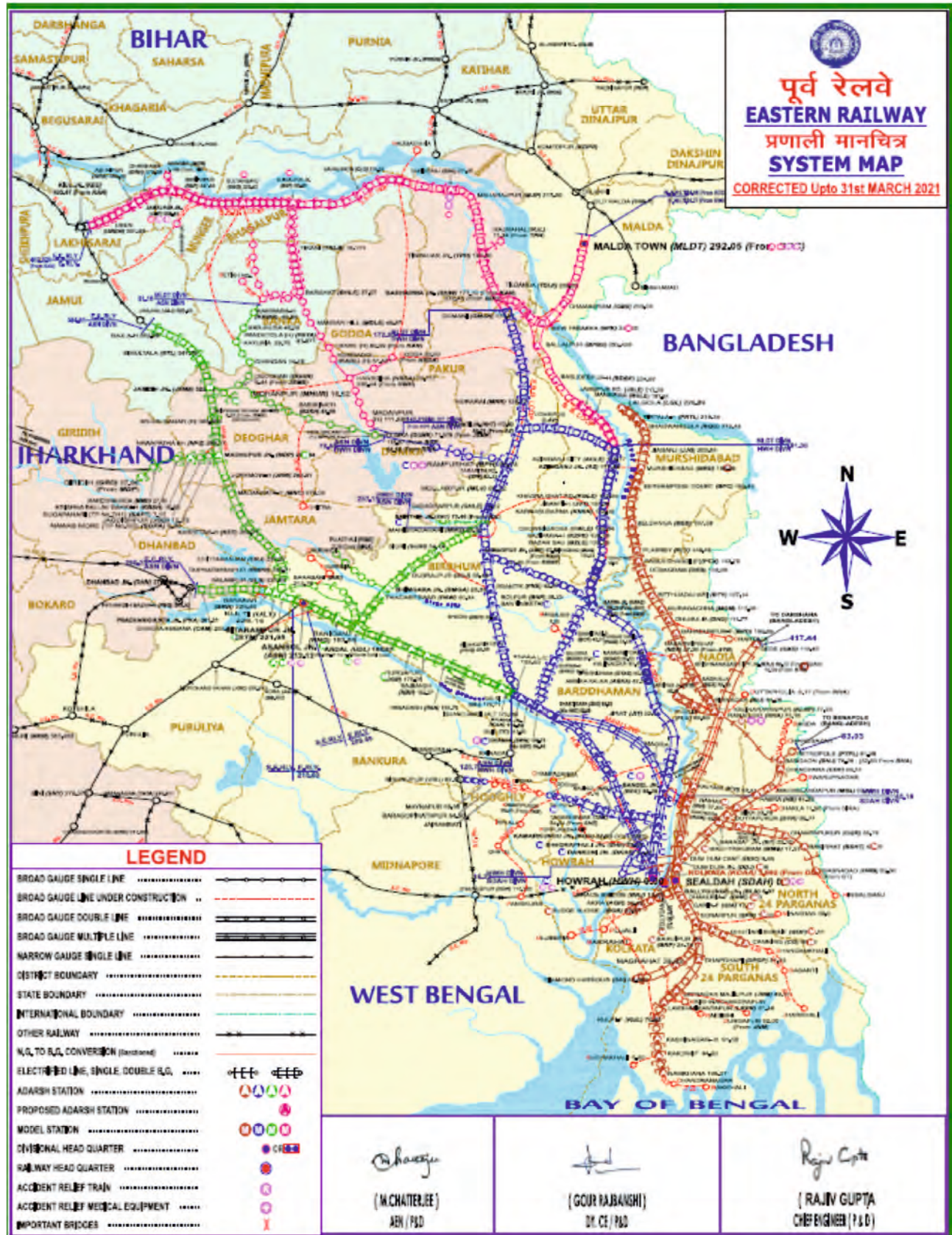
MALDA
DIVISION

ROAD MAP OF MALDA



System Map

EASTERN
RAILWAY



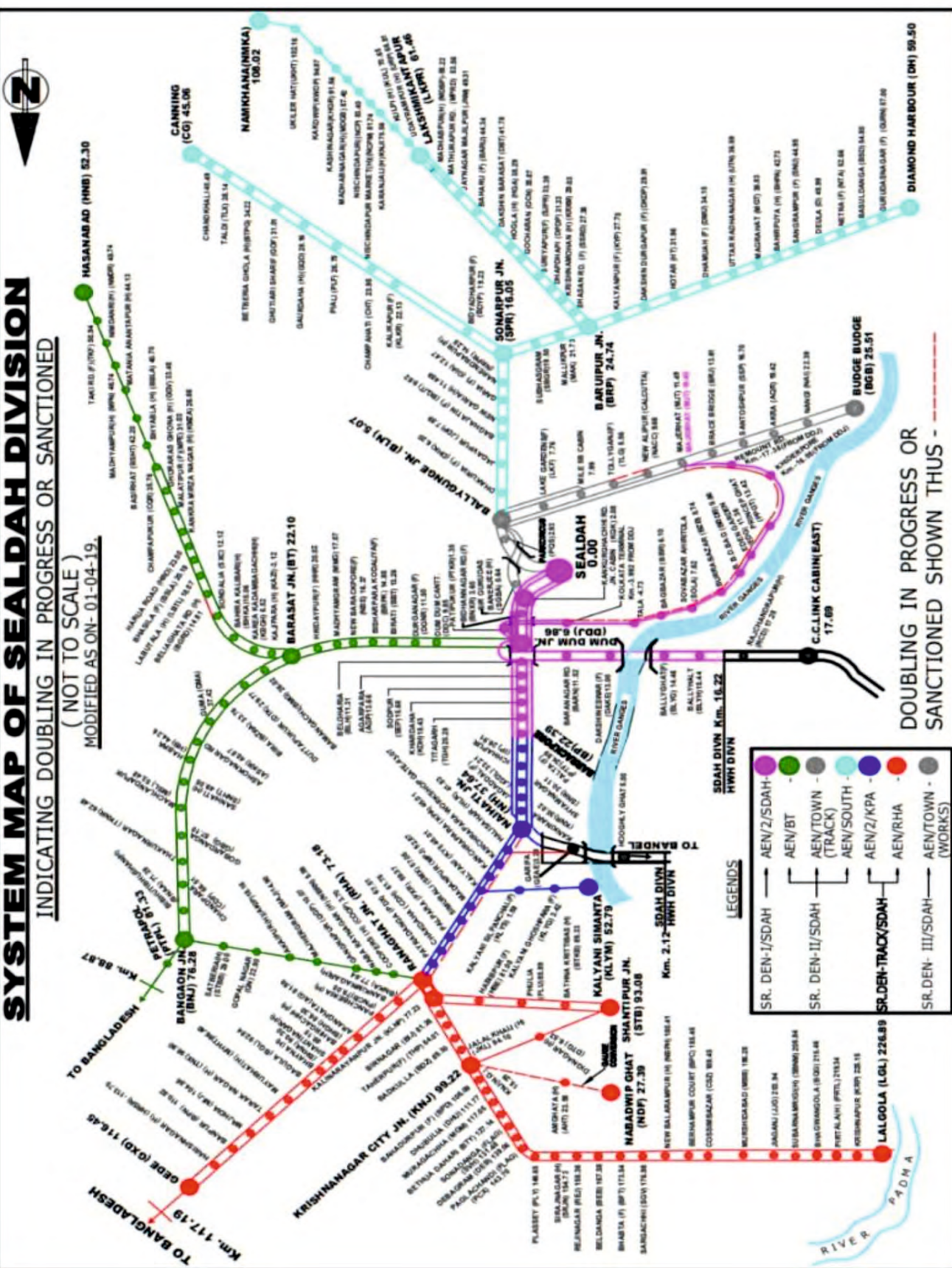


SYSTEM MAP OF SEALDAH DIVISION

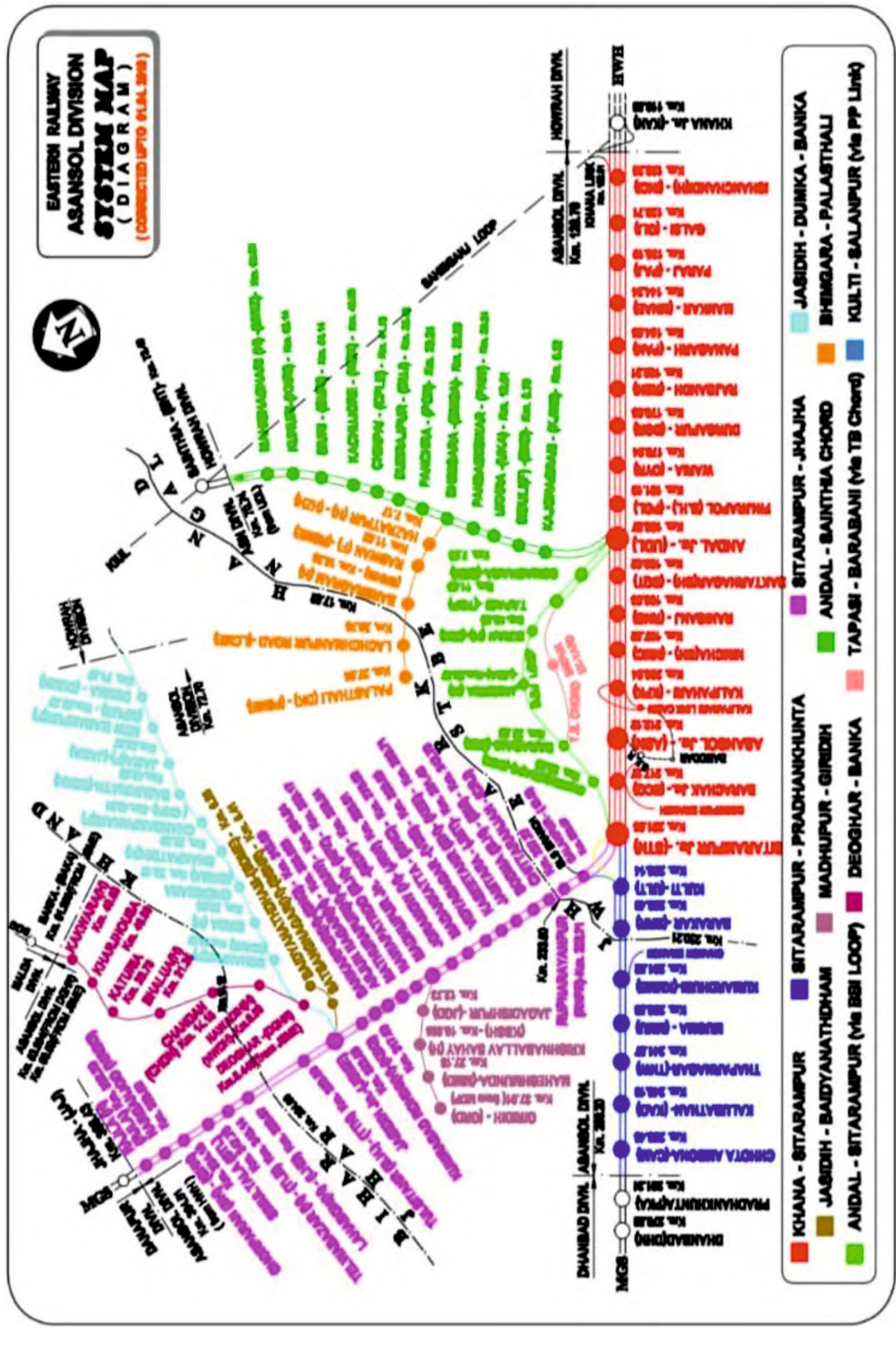
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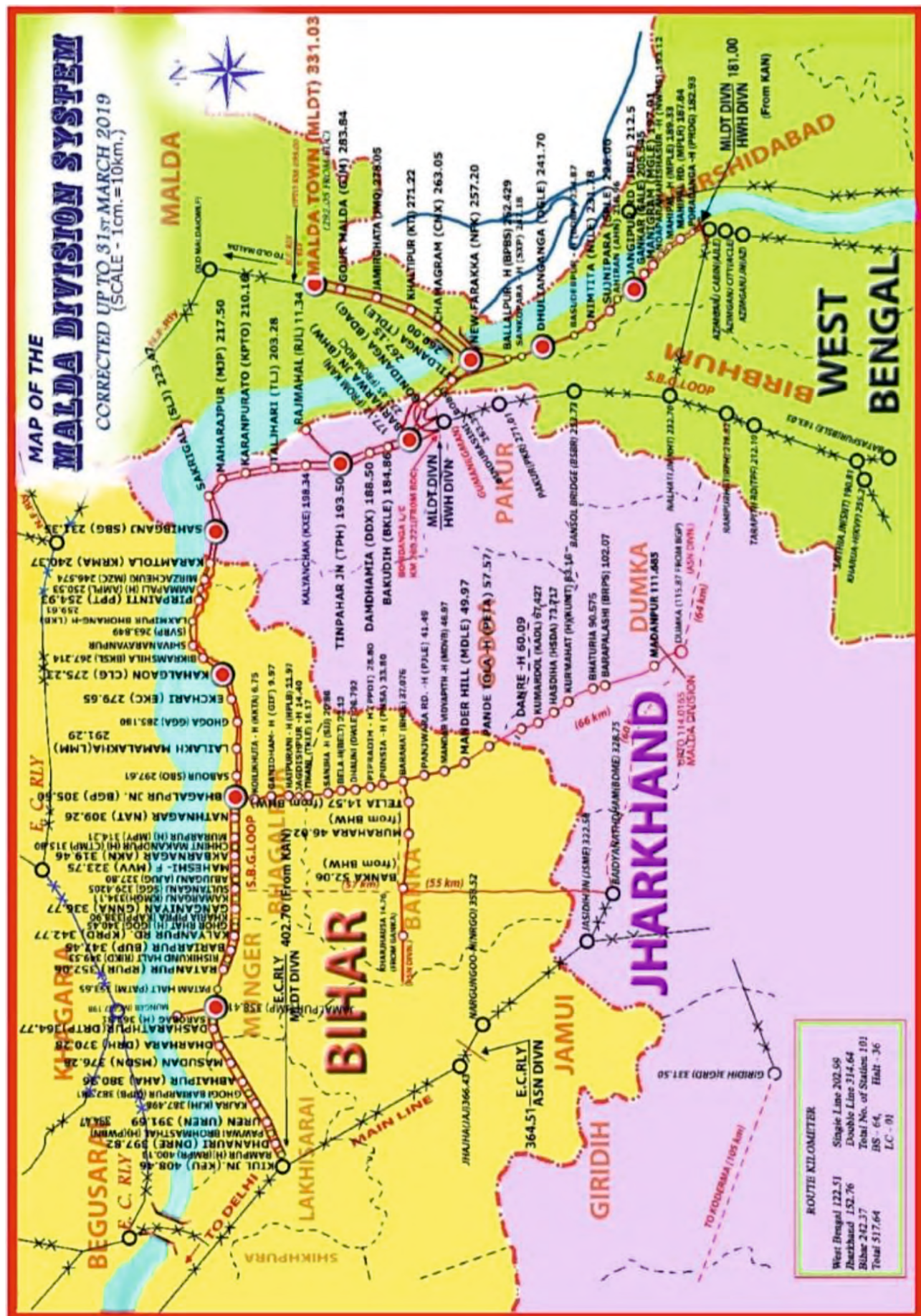
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DOUBLING IN PROGRESS OR
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MALDA DIVISION



VIGILANCE IS THE PRICE OF SAFETY

A LITTLE CARE MAKES MISHAPS RARE

ALWAYS ALERT-ACCIDENT AVERT

NEVER ADOPT SHORTCUT METHODS

A CAREFUL MAN IS THE BEST SAFETY DEVICE

MAKE SAFETY A HABIT

हमेशा संरक्षा को लेकर सक्रिय रहें।

हमेशा संरक्षा के नियमों का पालन करते रहें।

हमेशा अपनी और दूसरों की सुरक्षा के लिए जिम्मेदार रहें।

हमेशा याद रखें कि सभी दुर्घटनाएं रोकी जा सकती हैं।

हमेशा जोखिमों का आकलन करें, रुकें और सोचें।

हमेशा सुरक्षित रास्ता अपनाएं, कभी शॉर्टकट न लें।



We Care for Safety of our **Passengers**

Don't be just an onlooker, Please inform The train Conductor

Carrying
Explosives
or
Inflammable
items
In train
and
Smoking,
Consuming
Alcohol
are

**Punishable
Offence**



It is easier to
prevent than to
extinguish
a fire



पूर्व रेलवे
Eastern Railway