

पूर्व रेलवे
EASTERN RAILWAY

ISO 9001:2015 certified.



आपदा प्रबंधन योजना
DISASTER MANAGEMENT PLAN



सियालदह// SEALDAH

2019-20

PART-A

SAFETY SLOGANS

- AWARENESS & ALERTNESS ALONE CAN AVERT ALL ACCIDENTS.
- OBEY SIGNAL TO ENSURE SAFETY.
- WHEN TRAIN PASSING IN UNSAFE CONDITION, PUT ON SIGNALS TO 'ON' POSITION.
- SAFETY MEANS DOING THE THINGS RIGHT FIRST TIME RIGHT EVERY TIME RIGHT ALL THE TIMES.
- HAPPY ENDING IS ONLY FOR A SAFE WORKER.
- ALWAYS START YOUR WORK DAY WITH SAFETY IN MIND.
- DON'T WORRY IF YOU WORK SAFELY.
- SAFETY IS THE FASTEST WAY TO SUCCESS AND FAILURE.
- A SAFETY MESSAGE COULD SAVE THOUSANDS LIVES.
- WHILE GANG WORK, ENSURE ATTENTION TO TRAIN MOVEMENT.

DISASTER MANAGEMENT PLAN

आपदा प्रबंधन योजना



पूर्व रेलवे//सियालदह
Eastern Railway
SEALDAH

2019

DISCLAIMER

The information provided in this document is for the purpose of general guidance. Although all efforts have been made to ensure that it is authentic and accurate, however, in case of any conflict, the GR& SR / Accident Manual and other Codes would override. Disaster Management Plan is to work along with DM plan of Zone and DM plan of Railway Board.



FORWARD

Disaster management is a continuous and integrated process of planning, organizing, co-ordinating and implementing measures to which are expedient for prevention/mitigation of disaster and for evacuation, rescue, relief, rehabilitation and reconstruction. Since catastrophe/mishap arising from nature's fury or man made causes or accidents can result in disasters involving Railways, the Disaster Management Plan prepared by the Division will be of great help in prevention and also prompt and quick relief mobilisation.

I hope this plan will be of great help for all officers and staff of this Division to prevent disaster and also to tackle such crisis when arises in a systematic, prompt and efficient manner.

S/D
(Prabhas Dansana)
Divisional Railway Manager/Sealdah

SAFETY SLOGANS

**DO NOT ALLOW S&T STAFF TO
INTERFERE WITH POINT, SIGNAL,
BLOCK INSTRUMENT & CRANK
HANDLE ETC, WITHOUT RECEIPT OF
DISCONNECTION MEMO.**

**NO SHORT-CUT during failure, safety &
proper means do ensure, to make life of
passenger secure.**

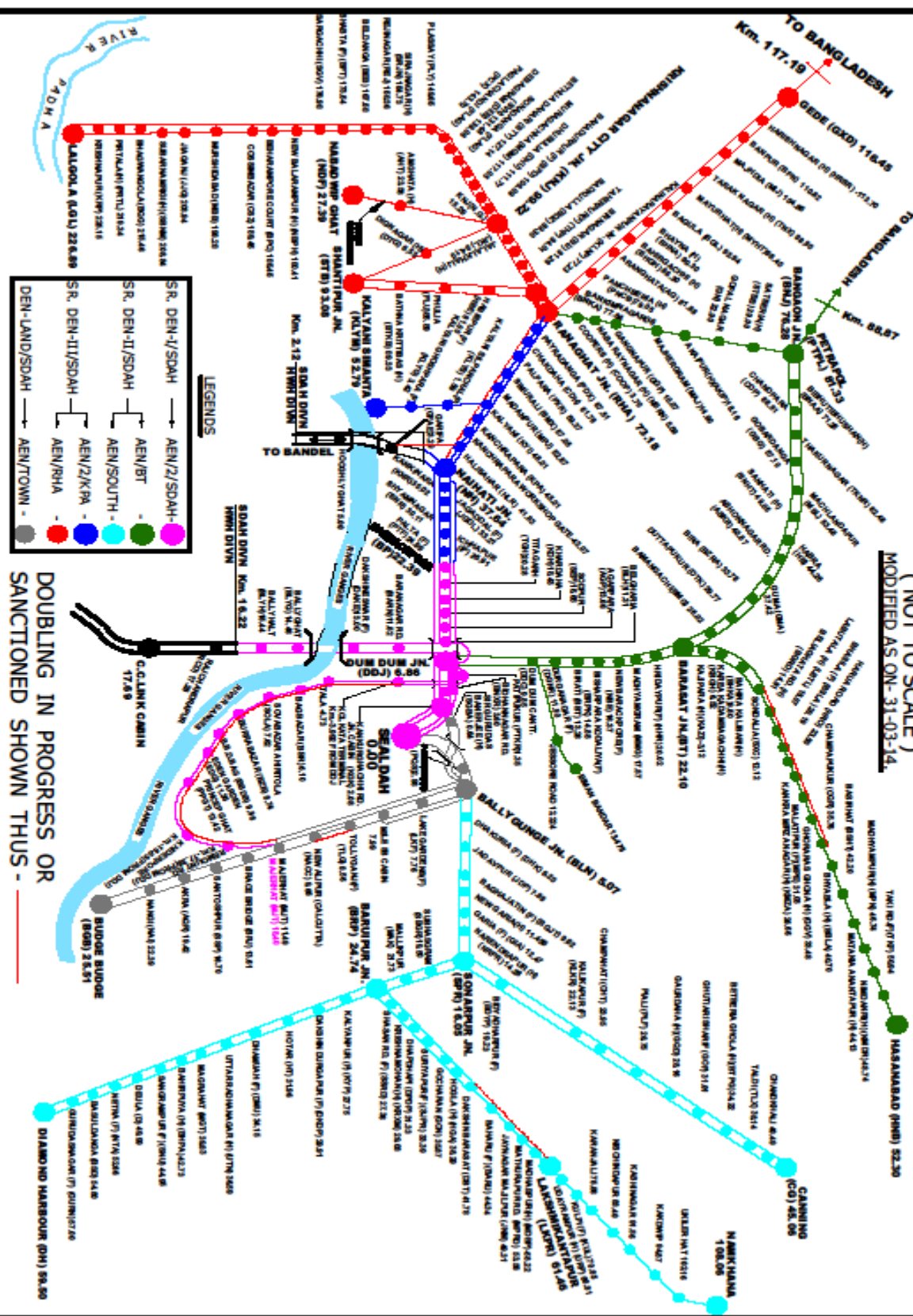
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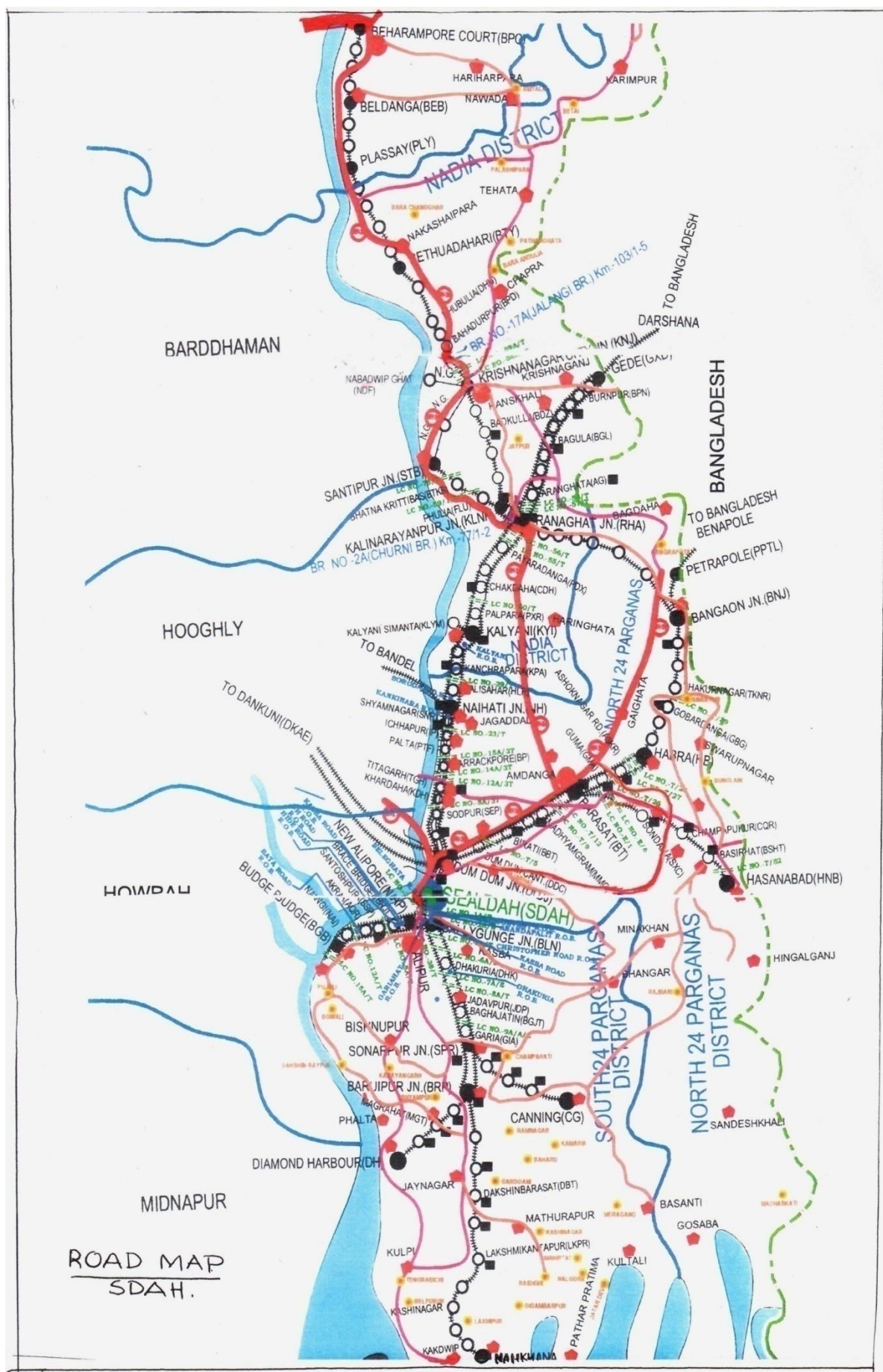
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SYSTEM MAP OF SEALDAH DIVISION

INDICATING DOUBLING IN PROGRESS OR SANCTIONED

(NOT TO SCALE)
MODIFIED AS ON-31-03-14.





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

DISASTERMANAGEMENTACT – 2005

National Policy on DisasterManagement (NPDM) :

The Disaster Management Act, 2005 (hereinafter referred to as the Act), enacted by the Parliament was notified in the Gazette of India on 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 channelised.

Salient Features of the DisasterManagement 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 of 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, organising, 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 for
 - 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, healthcare, and services in an affected area;
 - (vi) Take such other actions as it may consider necessary for disaster management.

Section 37

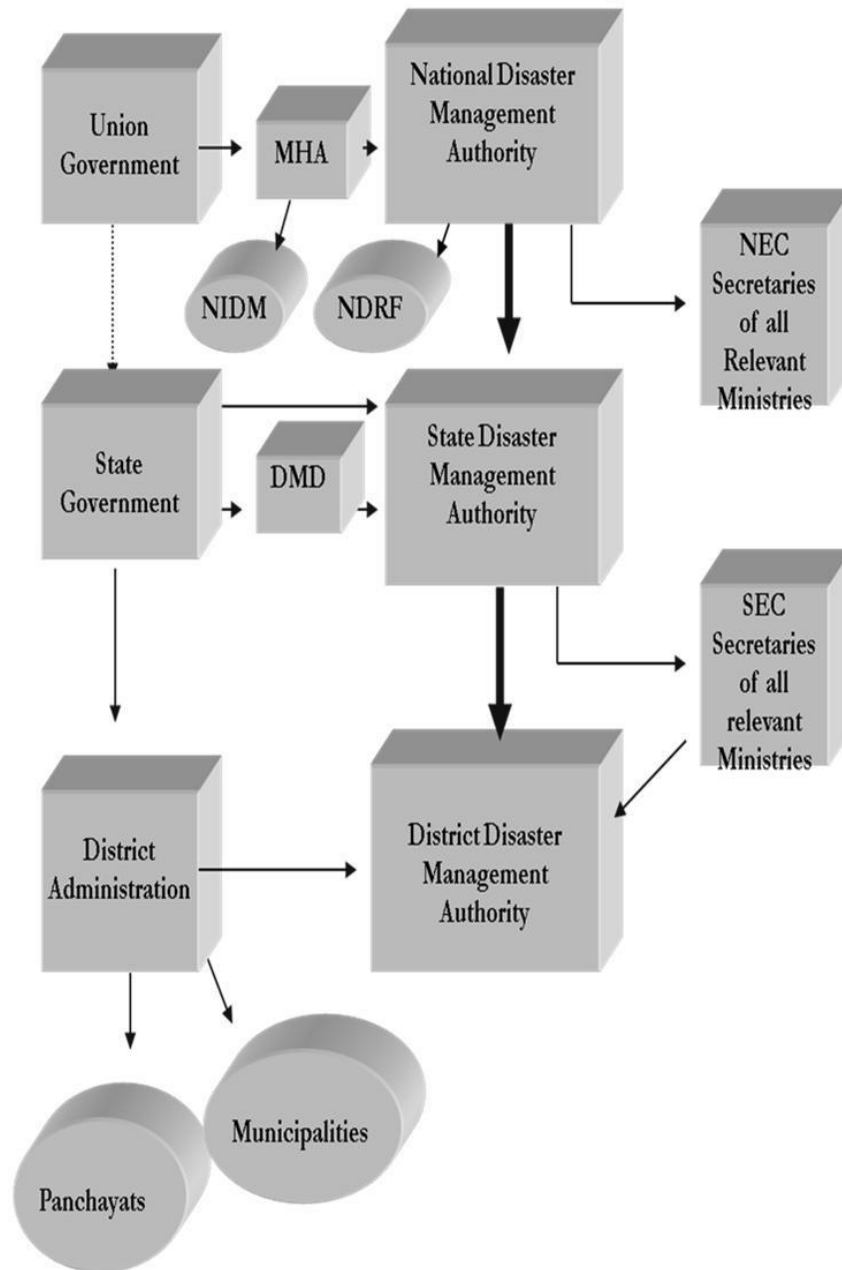
(1) Every Ministry or Department of the Government of India shall-

- 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 therein;
 - b) Furnish a status report regarding the implementation of the plan referred to in clause (a) of subsection (1) to the National Authority, as and when required by it.

Institutional Framework

Under the Disaster Management Act, 2005



Chapter-3

GENERAL INSTRUCTIONS OF THE RAILWAY BOARD

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

1. All Railwaymen 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 over riding priority with stranded passengers.

Chapter-4

NATIONALDISASTERMANAGEMENTAUTHORITY (NDMA)

The DisasterManagementAct, 2005, provides the powers, roles and jurisdiction of a NationalAuthority 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 NationalAuthority 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) 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 Act as 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 Chairperson, ex-officio :
- (b) The Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defence, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, tele-communication, urban development, water resources and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committees 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-

- Act as 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;
- Lay down 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 programme 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;
- Lay down 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 persons 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 for restoration of means of livelihood;
- d) Such other relief as may be 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 person's 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 aftermath of a disaster. The air and heli-lift and movement of assistance to neighbouring 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, watermanship and training of paramedics. At the national level, the Chief of the Integrated Defence 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 keyrole 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 Defence and Home Guards :

The mandate of the Civil Defence 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 Droughtetc. 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 safeguards 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 institutionalised 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 others 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.

Chapter-5

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/rising 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. Further details are as under:

Details of NDRF organization and 8 battalions are as under:

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-6

THE GUIDELINES OF FIRST AID

- 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 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. Child must be prevented by covering with suitable clothing or blanket. Similarly during summer injured to be shifted to a cooler place, avoiding direct hot sun beam.
- viii. Care, gentleness, assurance and good behaviour 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 sighing.
- iv. Pulse becomes progressively faster and weaker and become so feeble or not to 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 haemorrhage 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 haemorrhage.

- i. Firm pressure applied to a wound will always nearly stop bleeding and should be done with a clean pad and firmly applied Elastoplasts bandage. If this method fails, extra pressure with the flat of the hand over the Elastoplasts 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-clavian 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, instruct the patients to grip firmly on to the large plug with the teeth.

Bleeding from the palm of the hand:

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

Bleeding from the finger:

Apply a pad of lint or gauze 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 haemorrhage.

Bleeding from the wounds of chest and abdomen

Lay the patient on stretcher; apply a firm pad and Elastoplasts 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 pain injuries haemorrhage. 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 latter 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 there of. 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 (haemorrhage in the brain)
 - Alcohol
 - Epilepsy
 - Diabetes
 - Heart-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 haemorrhage may adjudged 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/her 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 life saving 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 wind pipe. 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.

FIRST AID

DEFINITION: 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.

AIMS:

- (1) Preserve life
- (2) Prevent further harm
- (3) Promote recovery

Under standing and observing the first aid priorities saves lives.

DO's

- ☐ ☐ Get help as soon as possible
- ☐ ☐ Learn the lifesaving techniques from a trained instructor
- ☐ ☐ Remember that every moment is vital: act quickly and calmly
- ☐ ☐ Reassure injured persons by soothing words/gestures
- ☐ ☐ Give first aid to the injured using first aid box of the guard or station.

DONT's

- ☐ Don't delay getting a seriously injured person to hospital- dealing with their trivial injuries wastes valuable time.
- ☐ Don't move an injured person unless it is necessary to safety

- ☐ Don't give an injured person any thing to eat or drink
- ☐ Don't leave injured until you have checked it is safe to do so

The three emergency situations where an injured person is especially at risk because of interference with vital needs are :

- Lack of breathing and/or heart beat,
- Severe bleeding,
- A state of unconsciousness

Skilled First Aiders can save lives by maintaining an injured person's vital needs:

ABC rule will help to identify these needs;

A- Airway

B-Breathing

C-Circulation

CPR. CARDIO PULMONARY RESUSCITATION

REMEMBER THE PRIORITIES

Danger to yourself

Response of the injured

Circulation (Blood circulation of the injured)

Airway

Breathing

In the event of an emergency, ask yourself the following questions:

Is there any Danger?

- ☐ Only approach an injured person once you are sure that there is no danger for you, the injured person or bystanders.
- ☐ Assess the resources available to you: are there any qualified medical professionals or any bystanders who could help you?
- ☐ If you can make the area safe, remember to put your own safety first. Do not attempt to deal with a life threatening hazard.

Is there any Response from the injured?

If the injured person is conscious:

- ☐ Assist him/her into a comfortable position
- ☐ Check for injury and illness
- ☐ Treat as appropriate
- ☐ Seek medical help, if necessary

If the injured person is unconscious, ask your self the following question

- ☐ Is there something blocking the injured person's Airway
- ☐ Check the injured person and ensure the airway is open.

Is pulse palpable (i.e. is the injured person's blood Circulating)?

YES

1. If you are alone, start artificial ventilation immediately.
2. Once you have given 10 breaths, Call for help.
3. Continue artificial ventilation.

At the rate of 10 breaths a minute until help arrives. Check breathing and pulse after every 10 breaths.

NO

1. Call for help immediately
2. Begin cardiopulmonary resuscitation at the rate of 2 artificial ventilation breaths to 30 chest compressions, until help arrives.

Is the injured person breathing?

Yes

1. Treat any life –threatening injury
2. Put injured into the recovery position
3. Get help
4. Check his/her breathing and pulse frequently

No

1. Start artificial ventilation
2. Call for help

FOR LIFE –THREATENING SITUATIONS

Assessing the injured

Remember

Airway

Circulation

Breathing

Check Response

1. Ask a question or command, for example 'Can you hear me?'
'What is your name?' 'Or 'Open your eyes'
2. If you get no response, gently shake the injured person's shoulders.
3. If there is still no response, the injured is unconscious. If someone is with you, call for help.

Check for Pulse (Circulation)

1. Place two finger tips in the hollow between the injured person's Adam's apple and the large neck muscle. Feel for five seconds before you decide that there is no pulse.
2. If there is breathing and pulse, put the injured in the recovery position.
3. If there is pulse, but no breathing, start artificial ventilation.
4. If there is no pulse present, start Cardiopulmonary resuscitation.

Open the Airway

1. Ensuring that the airway is clear is of paramount importance. Deprivation of air, even for a few minutes, can be fatal or cause brain damage.
2. Remove any obvious obstructions gently from the mouth, such as vomited material or loose dentures.
3. With two fingers under the injured's chin and your other hand steadying the forehead gently tilt the head back.

Check for Breathing

With your face close to the victim's mouth:

1. Look for the chest rising and falling
2. Listen for the sounds of breathing
3. Feel for his/her breath on your cheek

Recovery Position

Any unconscious person that is breathing and has pulse should be placed in the recovery position as it prevents the tongue from falling back and blocking the throat, and reduces the risk of the injured person choking from his/her own vomit.

ARTIFICIAL VENTILATION

1. Ensure the injured person's airway is clear and turn them on him/her back.
2. Pinch the injured person's nostrils between your index finger and thumb to close the airway.
3. Take a deep breath and with your mouth open, place it over the injured person's mouth ensuring that you have made a good seal.
4. Blow steadily into the injured person's mouth. You should see the injured person's chest rising.
5. Remove your mouth and allow the chest to fall
6. Repeat this process until help arrives or the injured person starts breathing again.

If the chest does not rise check that:

- ☐ There is no obstruction to the airway
- ☐ The head is tilted far back
- ☐ There is a firm seal around the victim's mouth
- ☐ The nostrils are firmly closed

Clearing an Obstruction

1. Check the mouth for any obstruction
2. Pat victim's back firmly to dislodge obstruction
3. Give abdominal thrusts by kneeling astride the victim and with one hand on top of the other, pushing sharply just under their ribcage.

(NOTE: There is a risk of transmission of disease during artificial ventilation for the person giving first aid.)

BABIES AND CHILDREN UNDER 8 YEARS -

It is advisable that when giving artificial ventilation to babies and small children to place your mouth over both their nose and mouth.)

If the injured has stopped breathing and has no pulse, it is essential to start CPR immediately.

It is preferable for this to be done by two people, as it is a very tiring procedure.

1. Ensure the injured person's airway is clear and that they are lying flat on their back.
2. Give 5 Artificial ventilation. If you are alone call for help.
3. With one hand, find the injured person's lowest rib, sliding your finger to point where the ribs meet the breastbone. Place your middle finger over this point and your index finger just above it.
4. Place the heel of your other hand above your two fingers. This is the area where you will be applying pressure.
5. Place the heel of your first hand on top of the hand which is now correctly positioned and interlock the fingers.
6. Keeping your arms straight, lean over the injured and press down vertically and firmly on his/her breastbone so that it is depressed about five centimeters (two inches), Do this hard and fast, thirty times and then give two full mouth-to mouth ventilations. 5 cycles of 30:2 in 2 minutes.
7. Continue until help arrives or the pulse return.

FOR A BABY (Infant: 1 month to 1 year)

What to do?

1. Find the correct position for your index and middle fingers by imagining a line drawn between the baby's nipples and placing your finger just below the midpoint of this line.
2. Using your finger, press about 2 cm down (just under 1 inch) at the rate of about 100 compressions/minute. Remember that chest compression should be combined with artificial ventilation using the ratio 3 compressions to 1 breath.

SMALL CHILD (1 YRS TO 8 YRS)

What to do?

1. Find the correct position for your hand in the same way as you would an adult.
2. Using one hand only, press about 2 cm down (just over 1 inch) at the rate of about 100 compressions every minute. Remember that chest compressions should be combined with artificial ventilation, using the ratio of 30 compressions to 2 breath.

BLEEDING

EXTERNAL BLEEDING (Bleeding from the surface of the body)

What to look out for:

- ☐ **Bleeding wound**

What to do:

1. Apply direct pressure with your hand, making sure there are no embedded objects in the wound.
2. Apply a sterile dressing or clean pad to the wound
3. If possible, raise and support the injured limb.
4. Leaving the original dressing in place, bandage it securely.
5. Treat the casualty for Shock.

INTERNAL BLEEDING (Bleeding within chest, skull or abdomen etc.)

What to look out for:

- ☐ Cold, pale skin
- ☐ Weak and rapid pulse
- ☐ Pain, thirst, confusion
- ☐ Unconsciousness
- ☐ Coughing up blood
- ☐ Severe bruising

What to do:

1. Treat the victim for Shock by lying them down and raising their legs.
2. Loosen any tight clothing especially around the neck, chest and waist.
3. Ensure that the victim is kept warm, but do not over-heat them a blanket should be enough.
4. If the victim becomes unconscious, put into the recovery position, monitor their breathing and pulse and be ready to start artificial ventilation or cardiopulmonary resuscitation, if necessary.

FRACTURES

What to look out for:

- ☐ Intense pain, especially on movement of the injured area.
- ☐ Injured area looks odd and unnatural
- ☐ Deformity
- ☐ Swelling and bruising
- ☐ Difficulty in moving injured area
- ☐ Shock
- ☐ Breathing difficulty

What to do:

1. Tell the victim to keep still. If possible, do not move the injured area but steady and support it.
- 2.
2. Any joints above and/or below the fracture must be immobilized to prevent further injury. Use a sling for arm fractures, which can be made from a triangular bandage, scarf and towel or similar thing.
3. Use splints to immobilize leg, upper arm, elbow, and finger and wrist fractures. Any long, firm object may be used (for example an umbrella or rolled newspaper) with plenty of padding in the case of leg fractures, you could also tie the victim's legs together.

3. Check pulsation.

NEVER: Try to straighten a broken limb.

NOTE: If the fracture is open, control the bleeding and cover with pressure bandage.

☐ ☐ **These are few examples of handling the emergency situations and rendering first aid. There are many more emergencies to learn for a first -Aider. One should take complete training on first aid from an authorized qualified person.**

SUMMARY:

- _ LEARN FIRST- AID AND BE A WILLING AND GOOD FIRST-AIDER.**
- _ YOU CAN SAVE THE LIFE AND PREVENT PHYSICAL INJURIES BY TIMELY**

ACTION.

- _ REMEMBER “GOLDEN HOUR” HAS IT’S VALUE.**
- _ LEARNING IS A CONTINUOUS PROCESS AND PRACTICE MAKES ONE PRRFECT**
- _ BE A FIRST-AIDER AND A LIFE SAVER.**

Chapter-7

LOCATION AND BEAT OF ART, CRANE AND MEDICAL VAN

Sealdah Division

STN OF ART	CLASS OF RELIEF TRAIN	TYPE OF RERAILING EQUIPMENT	PROVISION /CAPACITY OF B.D.CRANE.	Scale of ARMV	BEAT OF ART	BEAT OF BD CRANE	BEAT OF ARME/ ARMV
BGA	A (CONVENTIONAL)	LUKAS	140T DSL	Scale – I	Entire Sealdah station and yard area,SDAH-KYI (Exclu), KGK (Chord) –SDAH - DDJ-DKAE (Exclu.) DDJ-BNJ, DDJ-HNB. SDAH-NAMKHANA, SDAH-DH, SDAH-CG, SDAH-BGB Circular Railway	Entire SDAH Divn. , DDJ toCClink West Cabin (Excl.)	Entire Sealdah station and yard area,SDAH-KYI (Exclu), KGK (Chord) – SDAH - DDJ-DKAE (Exclu.) DDJ-BNJ, DDJ-HNB. SDAH-NAMKHANA, SDAH-DH, SDAH-CG, SDAH-BGB Circular Railway
	SPART B	LUKAS	-	-	- DO -		--
RHA	B	LUKAS	NA	Scale – I	RHA-KLYM, RHA-STB RHA—BNJ, RHA-LGL, RHA-GEDE	NA	RHA-KLYM, RHA-STB RHA—BNJ, RHA-LGL, RHA-GEDE

Chapter-8

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 26.11.1998 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 statements 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-9

GUIDELINES FOR DISASTER MANAGEMENT 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 Hooghly |
| 5 Bankura | 6 East and North Part of Purulia |
| 7 Bardhaman | 8 Nadia |
| 9 Birbhum | 10 Murshidabad |
| 11 South part of Malda | |

D Low damageriskzone (MSK VI)

- | | |
|-------------------------------|------------------------------|
| 1 South West part of Purulia | 2 South West part of Bankura |
| 3 North Westpart 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, ROB/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 rainfall 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 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 over head 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 any where people sit.
- Brace over head 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 studs 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 fore-shocks 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.

IN 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 door way for shelter only if it is inclose proximity to you and if you know it is a strongly supported, loadbearing doorway.
- Stay inside until the shaking stops and it is safe to go outside.
- Be aware 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 about or kick up dust.
- Do not smoke and do not light matches or use a cigarette lighter.
- Do not turnon 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.
- Donot touch any metal object in contact with electric wire.
- Do not drink water from open containers without having examined it andfiltered it through a sieve, a filter or an ordinary clean cloth.
- Do not re-enter badly damaged buildings and do not go near damaged structure

Chapter-10

GUIDELINES FOR DISASTER MANAGEMENT DURING FLOOD

FLOOD PRONE AREA OF WEST BENGAL

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

Nodal Officers during Flood Season

Station District/Place	Name &Address of the Co-ordinating Officers/Officers working in absence of the co-ordinating Officer	Telephone No.	
		Office	Residence
State Head Quarters	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 iii) Executive Engineer ,Chief Engineer’s Drawing Branch	2321-5749 2337-8489	2494-3428 2435-9583
North 24- Parganas	Executive Engineer, Bidyadhari Drainage Division, Taki Road, P.O. Barasat, District :North 24- Parganas.	2562-4520 2552-2536	2562-6308
Nadia	Executive Engineer, Nadia Irrigation Division, P.O.: Krishnanagar, Dist.: Nadia.	953472-252451	953472-252643
Murshidabad	Executive Engineer, Berhampore (I) Division, P.O.: Berhampore, District – Murhsidabad	953482-250845 FAX 953482-250434	953482-250505
South 24- Parganas	Executive Engineer	2439-9247	

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 floodprone areas, RAT, RAW and formation prone to erosion and marking them on railway system map. Monitoring of behaviour 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

Chapter-11

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. Dangerous goods have been classified into following 8 classes:

- I Explosives
- II Gases, compressed, liquified or dissolved under pressure.
- III Petroleum & other inflammable liquids.
- IV Inflammable solids.
- V Oxidising 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, liquified 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 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 are given below:

Dissolved Gases:

Acetylene (compressed into porous substances).

Compressed Gases:

Air Compressed

Argon

Coal Gas

Hydrogen

Methane

Neon

Nitrogen

Oxygen

Sulphur Hexafluoride

Liquefied Gases:

Ammonia (Anhydrous)

Chlorine

Liquefied petroleum Gas (Commercial Butane or Propane)

Carbon-di-oxide (Carbonic Acid Gas)

Cyclopropane gas

Ethyl Chloride

Freon, Arcton or Genetron

Hydro-cyanic Acid

Medical Mixtures (Oxygen and Carbon-di-oxide & Oxygen and Helium mixture)

Methyl Bromide
Methyl Chlorine (Chloro-methane)
Nitrous Oxide
Sulphur Dioxide Toxic (Sulphurous Acid Gas)
Liquid Air
Liquid Nitrogen
Liquid Helium

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 litres.

Marking & labelling of Cylinders or Containers

Rules for Marking & Labelling 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, refer rules 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 labelling, 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 vapour 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 vapour of which having flash point below 23°C.

(ii) Class B: Petroleum and other inflammable liquids, the vapour of which having flash point above 23°C but below 65°C.

(iii) Class C: Petroleum and other inflammable liquids, the vapour 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 wiring 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 fire fighting equipments 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.

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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 co-ordination with those agencies and organisations 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-12

GUIDELINES DURING BIOLOGICAL DISASTERS

Causes of Biological Disasters:-

Biological disasters might be caused by epidemics, accidental release of virulent micro-organism(s) or Bio-terrorism (BT) with the use of biological agents such as anthrax, smallpox, etc. The existences of infectious diseases have been known among human communities and civilisations 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 in 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, virology 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 mobilisation of investigational and therapeutic counter measures. 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 Defence, Ministry of Railways and Ministry of Labour 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 timelines and ultimate numbers to be trained.

Chapter-13

GUIDELINES FOR DISASTERS IN TUNNELS

There is no tunnel in Sealdah Division.

Chapter-14

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 at 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 per training 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 mobilised to extinguish the fire.

Chapter 15

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 centre is situated at Alipore, Kolkata.
- **Cyclone warning Centres (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 organisations, 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 windspeed 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.
- **Dewarning 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 equipments necessary to deal with the disruptions/damages.

Pre-cyclone preparation essentially involves ensuring of adequate inventory of necessary stores and equipments as per the check list 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. 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. 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. Poclains, 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. Continuous track petrolling should be arranged.

ELECTRICAL/GENERAL 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 Durgam Cheruvu 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)

ELECTRICAL/TRD DEPARTMENT

Will keep Tower Vans in readiness with full complement of staff and materials. Petrolling should be arranged in consultation with Engg. Dept.

ELECTRICAL/TRS DEPARTMENT

Maintenance staff should be kept in readiness.

MECHANICAL DEPARTMENT

Mechanical Dept during pre-cyclone season needs to keep arrangements of about 20 over-aged four wheeler tanks suitable for drinking water. 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 equipments at all nominated stations

The satellite phones of ARTs and Control Offices shall be kept in fully charged condition.

Spare 25 W VHF set complete with Battery and Antenna should be available. Extra DG set along with fuel should be stored at BLN, BRP, DH, NAM, CG, HNB, BT, BNJ, BPC, KNJ, STB.

MEDICAL DEPARTMENT

Divisional hospital i.e B.R.Singh Hospital/Seadah, Howrah Orthopaedic 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 the division as preparedness for cyclone even during the pre-cyclone season. The items are listed as below:

Sl	Name of medicines/item	Quantity
1	Injection T. Toxoid	50 ample
2	Injection Zofer	50 ample
3	Disposable 2 ml syringe	100
4	Tablet Septran DS	10000 nos
5	Tab. Metrogyl 400 mg	10000 nos
6	Tab. Paracetamol	10000 no
7	Syrup Metrogyl	5000 bottles
8	Syrup Septran	5000 bottles
9	Syrup Paracetamol	5000 bottles
10	Tab. Cetzine	2000 nos
11	Tab. Domstal	2000 nos
12	Tab. Buscopan	2000 nos
13	Tab. Antacid	10000 nos
14	ORS Pouch	5000 nos
15	Cotton 25 gm	1000 pc
16	Bandage 2 inches	500 nos
17	Bandage 4 inches	500 nos
18	Bandaïd	2000 nos
19	Beatadine Ointment 5 mg	2000 nos
20	Chlorine tablet/Zeoline drop	100000 nos
21	Bleaching Powder	5000 kgs

Above materials should be kept ready along with necessary carriers so that the 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.

CHECK ON 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 materials stocked should be cross checked for its physical availability in full.

A Stipulated Quantity of Monsoon reserve materials is to be maintained as below:

SL	ITEM	SEALDAH
1	Stone Dust (On Wheel)	10 BCX at Naihati
2	Stone Dust (Running Contract)	10000 m ³
3	Sal Ballah (On Ground)	1000 RM at Ranaghat 1500 RM at Beldanga.
4	Sal Ballah (Running Contract)	1000 RM
5	Rail Piling (Running Contract)	2000 RM
6	Scrap rails for piling	2000 RM
7	Boulder (On Ground)	2000 m ³ at Barrackpore
8	Boulder (Running Contract)	10000 cum
9	Boulde (On wheel)	10 BCX at Naihati
10	EC Bag	50000 Nos.
11	Empty BFR for loading of service girder	One endless BFR as per location nominated by SSE/Bridge

OPERATING DEPARTMENT

Sr.DOM will make assessment of required staff and will arrange deployment accordingly. The Divisional Control will also be manned by Supervisors to assist vulnerable areas/stations in disaster management. SM of the area with the assistance of Sr.DOM will ensure functioning of the stations.

ACTIVATION OF ALARMS TO STAFF & COLONY

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 in verbatim to the Divisional Officers as well as AENs concerned and all SMs on the section likely to be affected. The weather warning should be repeated to the staff and colonies by the concerned SMs/SSEs/SEs, if required loudspeaker should be used even on hiring.

PREPARATION OF ACTIVITIES FOR STATIONS LIKELY TO BE AFFECTED

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

NOMINATION OF OFFICERS AT EMERGENCY CONTROL AND WAY-SIDE STATIONS

DRM will identify and nominate the officers for opening up and manning the emergency control at short notice. Two motor trolleys and two Tower Vans should be made available at Sealdah main and south stations respectively for the movement of DRM and other Officers on exigency. VHF set and one satellite phone should be arranged and kept in readiness.

Emergency Controls

Officer in charge at the Emergency Control will make liaison with Meteorological Office, DM & SDO and Police control office to have ready informations. The Officer in charge will disseminate the informations to DRM, ADRMs, Sr.DSO, Sr.DOM, Sr.DEN/C and others.

The Emergency control shall obtain every two hourly position from Meteorological Office.

Relief Train

A rake of preferably 6 coaches of any type to be formed and kept ready at Sealdah/Kolkata at least 24 hrs before the cyclone is likely to hit for the movement of Officers, staff, Doctor, Food, Medicines and other relief materials.

Action by Commercial Department

Passenger assistance booth should be opened at important stations like Sealdah, Kolkata, Naihati etc with public address system. S&T department will provide DOT phone with STD facility.

Road Vehicles

All road vehicles including light and heavy material carrying vehicles shall be kept in readiness at the nominated Stations/Divisional offices with adequate fuel and drivers to move men/materials/equipments within short notice.

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/short terminated.
- iv. On heavy vehicles carrying relief materials.
- v. At major restoration sites after cyclone recedes & work commences.

- vi. All road vehicles including light and heavy material carrying vehicles shall be kept in readiness at the nominated Stations/Divisional offices with adequate fuel and drivers to move men/materials/equipments within short notice.

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 Operating 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.
- ii. If a train is stranded in the block section, the conductor/TTEs manning the train should take a census of the passengers, and inform to the station at either end through walkie-talkie sets available with the Guard/Driver of the train or through CUG phone so that the information can be passed on to the Divisional Control Office.
- iii. If any passenger is found to have injured during the cyclone, first aid should be provided by the Guard/TTEs/station staff. Medical aid should be provided to injured passengers at a station. Details of such cases should be informed to the Divisional Control Office.

FIRST ASSESSMENT OF DAMAGE

Motor Trolley Survey & Damage assessment

- i. 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 by Motor Trolley. They will collect the following information and will disseminate the same to the Divisional Control Office :
 - Nature of damage/obstruction in track with location in Km.
 - Possible method of restoration.
 - Resources/materials required for restoration.
 - Possibility of running of train/light vehicle.
 - Forecast of restoration time.

Survey Boats

In the circumstances when the portion of track gets inundated under water, boats shall be hired locally to navigate across the water body and to assess the damage of railway property.

MOVEMENT OF RELIEF TRAIN FOR RESCUE, RELIEF AND RESTORATION

After assessment of the damage of the railway property from the Officer at field, relief train/trains on the section to be run with full complement of staff and materials. Movement of relief train should not be delayed and will be monitored by Sr.DOM.

Sr.DCM will arrange sufficient food and water in the train for stranded passengers. If possible the relief trains will move up to the affected site.

Chapter-16

CLEARANCE BY STATE POLICE IN CASE OF ACCIDENTS ON 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 Police 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 has 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 is created amongst all those engaged in rescue activities.
5. The letter supercedes the Railway Board's letter of even No. dated 07-2-2003.

Chapter-17

DUTIES OF RAILWAY PERSONNEL IN THE EVENT OF A SERIOUS ACCIDENT

Extracts of Accident Manual/ Eastern Railway

	ACTIVITIES & DUTIES	REFERENCE OF RULE
	OPERATING DEPARTMENT	
1	Reporting of accident	
1.1	Guard	Rule No. 3.02 of Accident Manual.
1.2	Engine Crew	Rule No. 3.03 of Accident Manual
1.3	Railway servant travelling by the train	Rule No. 3.05 of Accident Manual
1.3	Station Manager of both sides of the affected section and Controlling Station Manager	Rule No. 3.08 of Accident Manual
1.4	Section Controller	Rule No. 3.15 of Accident Manual.
1.5	Chief Controller / Dy. Controller	Rule No. 3.16 of Accident Manual.
1.6	Safety Officers of the Division	Rules No. 3.14 of Accident Manual.
1.7	Officer-in-Charge of Control Office :	Rule 3.20 of Accident Manual
1.8	Head Quarters Emergency Control	Rule No. 3.24 of Accident Manual.
2	ELECTRICAL DEPARTMENT	
2.1	Traction Power Controller	Rule 3.18 of Accident Manual.
2.2	Traction Loco Controller :	Rule 3.19 of Accident Manual.
2.3	Divisional Electrical Officers :	Rule 3.21 of Accident Manual.
3	MECHANICAL DEPARTMENT	
3.1	Power Control	Rule 3.17, 5.10 & 5.18 of Accident Manual.
3.2	Divisional Mechanical Officers	Rule 3.22 of Accident Manual.
3.2.1	Calling of Relief Train	Rule No. 5.08 of Accident Manual.
4	ACCIDENT MANAGER:	Rules 3.06 & 3.07 of Accident Manual
4.1	RESCUE OPERATION :	.
4.1.1	Mechanical Officers	Rule 3.22 (v) of Accident Manual
4.1.2	Medical Officer	Rule 3.22 (v) of Accident Manual.
4.2	RELIEF OPERATION:	Rule 3.10 of Accident Manual

	ACTIVITIES & DUTIES	REFERENCE OF RULE
4.2.1	Security Officers	Rule 3.09 of Accident Manua
4.2.2	Crowd control	Rule 3.09 of Accident Manual.
4.2.3.	State Police Clearance and restoration: Security Dept.	Rules Nos. 3.09 & 5.23 of Accident Manual
4.2.4	Signalling and Telecom Officers	Rule 3.13 of Accident Manual
4.3	RESTORATION OPERATION	
4.3.1	Personnel Department	Rule No. 3.12 of Accident Manual.
4.3.2	Mechanical Department	Rule 3.22 of Accident Manual.
4.3.3	Electrical Department	Rule 3.21 of Accident Manual.
4.3.4	Engineering Department	Rule 3.23 of AccidentManual
4.3.5	S&T department	Rule 3.13 of AccidentManual
5	MAINTENANCE OF SITE EQUIPMENT	
5.1	Maintenance of SPART / ART and ARMV Rolling Stock / BD Crane	Rule No. 5.21 of Accident Manual.
6	CHECK LIST FOR SENIOR-MOST OFFICERS AT SITE	Senior most Officers at site will act as per Accident Manual Rule 3.06 & 3.07.
7	DIVISIONAL CONTROL ORGANISATION	Divisional control organization will act as per Accident Manual Rule No. 3.20.
8	MEDIA MANAGEMENT AT SITE	Senior most Officers at site will deal with the Press and DRM at Divisional Headquarters.

NOTE : Details of the duties narrated in Chapter – III of Accident Manual, Eastern Railway (Reprinted 2004) should be consulted.

Quick information and priority of dissemination(Rule 3.16 of Accident Manual)

Take assistance from other Controllers/ Dy. Controllers for relaying the information quickly and simultaneously to the following officers in order of priority.

- DRM
- ADRM/O & ADRM/T
- SR.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
- ii. 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.
- iii. Chief Controller/ Dy. Controller will advise the TI (M) and controlling SM to proceed to the site of accident by first available means.

Chapter-18

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 Box in 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 railwaymen 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-19

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) In other circumstances considered justifiable by the attending medical officer. The injured persons other than Railway beneficiaries, when admitted in a railway hospital should be transferred to non railway hospital as and when their condition permits.
- (ii) In case there are no railway hospitals nearby, then they are to be admitted in the nearest Govt. hospitals.
- (iii) In following cases, injured may be taken to a Private Hospital.
 - When there is no railway or Govt. hospital available within a radius of, say, 8 kms. from the site of accident or,
 - When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient.

- Except where railway doctor certifies, such injured passenger should normally be eligible to the lowest class of accommodation in private hospitals where different scales are available.
 - Where the family of the injured person desires to be provided with a higher class accommodation, the family should give in writing to pay the extra cost involved directly to hospital authorities.
- (iv) For this purpose, each division should make out a working arrangement with such 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.
 - (v) 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.
 - (vi) CMS should also settle charges to be paid for such cases for each class of accommodation.
 - (vii) 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.
 - (viii) 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).
 - (ix) 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.
 - (x) They should also carefully monitor the condition of injured and maintain an updated list with all details.
 - (xi) If more than one hospital is involved, apart from deputing doctors to individual hospitals, a railway doctor should also be deputed to co-ordinate 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 or on duty staff 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.
- (vi) As each relative arrives his name should be marked in the list against the passenger's name.
- (vii) Reception counter should be provided with BSNL telephone with STD facility.
- (viii) There should be 2 mobile telephones for talking to patients inside wards for making outgoing calls.
- (ix) 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 in mid 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 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 in Section 8.

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.

11.7 SINGLE WINDOW CLEARANCE:

- (i) CAC should have provision of single window clearance for all legal formalities & multiplicity of paper work.
- (ii) Counters provided in CAC should have facilities for following items in the given sequence as indicated in Annexure – 3:
 - (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 or 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.

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) In many 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.
 - shopkeepers 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 endeavour.

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-20

MEDIA MANAGEMENT PLAN

OBJECTIVE:

- (i) To post the public with factual information pertaining to the accident.
- (ii) To convey certain information that is of use to passengers.
- (iii) To convey specific information that 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) 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) 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 OC site.
- (v) PRO will be available in the 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 DRM, CPRO 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 DRM is competent to interact or give interview to press and electronic media.
- (iii) Railway's endeavor 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 railwayman 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 DRM.
- (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.
- (v) Expected time of departure of rear portion of accident involved train.
- (vi) Its diverted route and likely time of arrival at the destination.
- (vii) In case empty coaching rakes have been arranged, then details of the same.
- (viii) 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.
- (v) Approximately how many patients have been admitted in each of these hospitals.
- (vi) Names of injured passengers.
- (vii) Communication facilities like cell phones, STD phones provided at these hospitals.
- (viii) Payment of ex-gratia.
- (ix) Facilities offered to relatives of victims, including free pass for journeys.
- (x) Special trains being run for bringing relatives of dead and injured.
- (xi) Number of dead bodies recovered and number of bodies identified.
- (xii) 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.
- (i) Under such circumstances it is possible to identify dead bodies only when relatives come from their home town.
- (ii) 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 NER.

Train Services:

- (i) Details of train operation with regard to :
 - Diversion,
 - Regulation,
 - Re-scheduling,
 - 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 relatives enroute.
- (iv) Expected departure time of relatives special from their originating stations.
- (v) 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.
- (ii) 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.
- (iii) 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) PRO on arrival at accident site shall collect factual information from the OC 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 per fixed 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, Varta, 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 travelled by the accident involved train along with list of dead and injured in the accident reach PR officials at the earliest.

Chapter 21

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 Railway's DM team continues for a few days. 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 hospitalised for comparatively longer spells are then the sole responsibility of Railway's medical department.

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 co-ordinated 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)

Get **SMART** !

Use **SAFETY** from
the **START.**

SAFETY is a

PRACTICE,

Let us follow.

- 1. THE BEST SAFETY DEVICE IS A CAREFUL MAN.**
- 2. NO HOLIDAY FOR SAFETY.**
- 3. THE SAFETY OF THE PASSENGERS IS OUR MOST SACRED DUTY.**
- 4. ALWAYS ALERT, ACCIDENT AVERTS.**
- 5. A LITTLE CARE MAKES MISHAPS RARE.**
- 6. OBSERVE THE STATION WORKING RULES REGIDLY.**
- 7. RAILWAY MEN, FOR US SAFETY IS A MUST.**
- 8. LIFE IS PRECIOUS, BE SAFETY CONSIIOUS.**
- 9. ACCIDENT BEGINS WHERE SAFETY ENDS.**
- 10. CARELESSNESS COSTS LIVES.**
- 11. A MINOR OMISSION SPELLS A MAJOR DISASTER.**
- 12. A SAFETY RULE IS ONLY AS SAFE AS YOU MAKE IT.**
- 13. IF IT SEEMS RISKY, DONOT DO IT.**
- 14. DONOT THINK IT IS SAFE MAKE IT SURE.**
- 15. A DANGER FORSEEN IS AN ACCIDENT PREVENTED.**
- 16. DONOT TRUST TO LUCK, TRUST TO SAFETY.**
- 17. TIME IS IMPORTANT, BUT SAFETY IS OF FAR GREATER IMPORTANCE**

- Never resort to any short cut methods for reception and dispatch of trains.
- You must observe the rules without any compromise



SAFETY ORGANISATION EASTERN RAILWAY, SEALDAH

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