



उत्तर पश्चिम रेलवे North Western Railway

आपदा प्रबंधन योजना 2021

भाग - I

Disaster Management Plan-2021

Part - I

(ISO 9001:2015 Certified)



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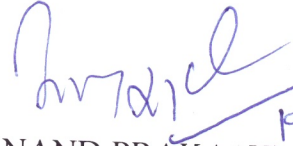
FOREWORD

For handling disasters in a synchronized and efficient manner, Disaster Management Act, was promulgated in year 2005 by Govt. of India. Prior to this act, Railway's preparedness towards disaster was mainly pertaining to handling of train accidents & emergencies of track formation like breaches and floods etc. However, now a days disaster no longer means a train accident only but its ambit has become much wider. There has been a paradigm shift in the Government of India's strategy for disaster management, from rescue, relief and rehabilitation/recovery approach to a holistic approach with more emphasis on prevention, mitigation, capacity building and preparedness.

Though ample infrastructure is available with Railways, yet we cannot cope up with all types of disasters/emergencies ourselves. Hence, inputs & assistance from other Government departments, both Central and State, NGOs, Private agencies etc. are necessarily required to face these disasters with utmost efficiency effectively.

The "**Disaster Management Plan 2021**" is an updated version of earlier issued Disaster management Plan in the year 2019. This latest version contains additional chapters on Honorable Prime Minister's 10 point Agenda, Precautions for Safe Storage & Handling of Hazardous Chemicals, SOP on fire accidents, Preventive & Mitigation measures & Latest guidelines issued by National Disaster Management Authority (NDMA) & Railway Board. Thus the expansive coverage of this updated version will cover much wider gamut to provide more prompt and effective relief to the affected people through the defined actions to be taken in aftermath of any kind of disaster. As Railwaymen, we intend to exercise spontaneous initiative and utmost devotion in Disaster Management.

I hope that the detailed instructions/information contained in the Disaster Management Plan will be useful for attending the disasters more efficiently and effectively.


(ANAND PRAKASH) 17/2/21

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PREFACE

Government of India had enacted a comprehensive Disaster Management Act in 2005 which made a paradigm shift from relief centre approach to a comprehensive proactive disaster risk reduction, meticulous preparedness and effective response. This Disaster Management Plan had been prepared specifying the measures to be taken for prevention and mitigation of disaster, its role and responsibility in relation to preparedness and capacity building to deal with any disaster.

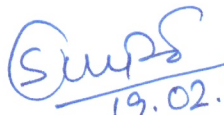
Preparedness, quick mobilization, mobility and fast responses from all concerned including Civil Defense, Territorial Army, Scouts and Guides, RPF, Gangmen and on board staff from the Railways and Civil Authorities, NDRF, NGOs, Army organization from outside the Railways are the backbone on which a disaster management system rests.

Disaster Management Plan of North Western Railway for the year 2021 has now been updated and modified as per latest information received from different authorities.

This revised Disaster Management Plan-2021 of North Western Railways has been prepared incorporating- Honorable Prime Minister's 10 points Agenda, Storage & Handling of Hazardous Chemicals, SOP on fire accidents, Preventive & Mitigation measures and Latest guidelines issued by National Disaster Management Authority (NDMA).

The soft copy Disaster Management Plan will also be available on North Western Railway's official website; Safety Information Management System and Railway Board's website.

I request all officers and staff to go through it, so that we are well acquainted with various aspects to make ourselves fully prepared to tackle any type of disaster effectively.


19.02.2021
(S.P.S.GUPTA)

TERM OF REFERENCE

As per HLC items No.15

15A Disaster Management Plan.

All Divisions and Zonal Railway headquarters (Including Metro Kolkata & Delhi Metro Railway Corporation) must devise their disaster management plan, if not already done taking into consideration the resources available with them, their neighbouring divisions/Zonal Railways, civil authorities, industrial units and Armed Force bases located in their territory. This would enable the Divisions/Zonal Railways to muster the entire local resources in case of a major disaster/natural calamity. Zonal Railways Disaster Management plan should integrate all divisions and also to take into consideration adjacent railway's framework.

Objective of the booklet: The objective of this plan is to make the system prompt, receptive and efficient enough to respond quickly and effectively in case of any disaster and to establish a corporate safety management culture and make all employees aware of their roles and responsibilities with respect to disasters.

15B Preparation of DM Plan; The Disaster Management Plan has inter-alia include 'who is responsible for what activities in detail'.

- (i) Preparation and implementation of disaster management plan is the responsibility of concerned General Manager/Divisional Railway Manager.
- (ii) Dy. Chief Controller on duty will order Accident Relief Train and ARME, as soon as he receive information of an accident involving train carrying passengers, also in other cases where casualties are reported.
- (iii) Senior most railway officer at the site of the accident shall be the designated Site Manager.
- (iv) Management of rescue operations—Primarily Operating, Mechanical and Medical Departments. Assistance to be provided by all railwaymen (irrespective of their department) as needed.
- (v) Relief operations including care for the dead—Commercial, Medical & RPF Departments.
- (vi) Communication network – Telecom Department.
- (vii) Crowd control and law & order at site—RPF.
- (viii) State police clearance for restoration—RPF.
- (ix) Restoration operations –Mechanical and Operating, fixed infrastructure like Track, signalling system etc. by the department concerned.
- (x) Maintenance of ART/ARME & SPART, rolling stock /Break down cranes including rail-cum-road and road mobile emergency vehicle etc.—Mechanical Department
- (xi) Maintenance of equipment kept in ART/ARME & SPART for rescue and restoration operations –Department concerned.
- (xii) Media management at site- by Public relation/Commercial departments and site manger.
- (xiii) Checklist for the officers and supervisors must be issued in the form of pocket booklet indicating Do's and DON'Ts at the site of accident for benefit of :
 - (a) First official reaching at site of accident
 - (b) Senior Most officer reaching at site.
 - (c) Division and HQ Control Organization
 - (d) Station Manager/Station Superintendent

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CHAPTER-1

Prime Minister's Ten Point Agenda on Disaster Risk Reduction

Hon'ble Prime Minister enunciated Ten Point Agenda on Disaster Risk Reduction during Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) 2016, held in New Delhi during November 2016, given as under:

PM Ten Point Agenda –

1. All development sectors must imbibe the principles of disaster risk management
2. Risk coverage must include all, starting from poor households to SMEs to multi-national corporations to nation states
3. Women's leadership and greater involvement should be central to disaster risk management
4. Invest in risk mapping globally to improve global understanding of Nature and disaster risks
5. Leverage technology to enhance the efficiency of disaster risk management efforts
6. Develop a network of universities to work on disaster-related issues
7. Utilise the opportunities provided by social media and mobile technologies for disaster risk reduction
8. Build on local capacity and initiative to enhance disaster risk reduction
9. Make use of every opportunity to learn from disasters and, to achieve that, there must be studies on the lessons after every disaster
10. Bring about greater cohesion in international response to disasters

S. No.	Agenda Point	Explanation
1	All development sectors must imbibe the principles of disaster risk management	Development and Disasters are two sides of a coin. While a planned development can reduce the risks of disasters, the absence of proper planning can aggravate them. It is, therefore, essential to imbibe disaster risk reduction approach in all development schemes. Development should focus on reducing disaster risks and not create them.
2	Risk coverage must include all, starting from poor households to SMEs to multi-national corporations to nation states	Disasters result in loss of lives and damages to properties and assets. Those who survive face the challenges of their rehabilitation. This applies to all from poor households to SMEs to multi-nationals. It is necessary to think big and innovatively to widen the risk insurance cover. Some bold steps have been taken to ensure financial inclusion and risk insurance for the poorest. Government has some schemes having risk coverage in consideration which include <i>Jan Dhan Yojana</i>, <i>Suraksha Bima Yojana</i>, <i>Fasal Bima Yojana</i> (crop insurance) etc. There is a need for: • Development of disaster insurance mechanisms for home-owners in disaster prone area • Development of parametric insurance for weather and climate related disasters • Develop insurance products to cover major infrastructure projects

3	Women's leadership and greater involvement should be central to disaster risk management	It is necessary to encourage greater involvement and leadership of women in disaster risk management to support special needs of women affected by disasters. Women are generally seen as vulnerable to disasters. But women can play an important role in disaster risk reduction at the household, society, community and beyond. We need large number of women volunteers, engineers, masons and building artisans to participate in post-disaster reconstruction and promote women self-help groups which can assist in livelihood recovery. There is a need to include women in NDRF and SDRF, and to train elected women representatives at the local level under development.
4	Invest in risk mapping globally to improve global understanding of Nature and disaster risks	Disasters know no boundary. Many natural hazards impact across countries, so there is a need for better understanding of such risks at global level. With a shared understanding of the nature and severity of disaster risks globally, their impacts can be mitigated with better planning and preparedness. This requires undertaking multi-hazard risk assessments and developing maps for all major hazards in a standardized format to facilitate disaster risk reduction.
5	Leverage technology to enhance the efficiency of disaster risk management efforts	Efforts must be made to leverage technology to enhance the efficiency of our disaster risk management efforts. This requires use of technology in resource planning, e.g., India Disaster Resources Network (IDRN), creation of e-platform to map expertise and resources on highly specialized aspects of disaster response and to increase the efficacy of early warning systems for all major hazards through the application of technology.
6	Develop a network of universities to work on disaster-related issues	It will be helpful to develop a network of universities and academic institutions to work on disaster-related aspects. As part of this network, different universities could specialize in multi-disciplinary research on disaster issues most relevant to them.
7	Utilise the opportunities provided by social media and mobile technologies for disaster risk reduction	Utilize the opportunities provided by social media and mobile technologies to develop a social media strategy for Disaster Risk Management in the country. Social media is transforming disaster response. It is helping response agencies in quickly organizing themselves and enabling citizens to connect more easily with authorities.
8	Build on local capacity and initiative to enhance disaster risk reduction	Disaster management must build on local capabilities and initiatives. The task of disaster risk management, particularly in rapidly growing economies, is so huge that formal institutions of the state can at best be instrumental in creating the enabling conditions. Specific actions have to be designed and implemented locally. Such efforts reduce risk and create opportunities for local development and sustainable livelihoods. Localization of disaster risk reduction will also ensure that good use is made of the traditional best practices and indigenous knowledge.

9	Make use of every opportunity to learn from disasters and, to achieve that, there must be studies on the lessons after every disaster	Ensure that the opportunity to learn from a disaster is not wasted. After every disaster there is a need to undertake research studies to understand the best practices and learn lessons to improve the policy and disaster governance.
10	Bring about greater cohesion in international response to disasters	Disasters' impacts are huge and so are the needs to be prepared for and respond strategically. Across the globe, countries face disasters similar in nature and sometimes across the countries. It requires coordinated and unified response by affected countries. Pre-disaster planning and preparedness can result in effective and timely response, hence it is important to bring about greater cohesion in international response to disasters. International forums and protocols should be used in addressing disaster risks for effective and coordinated response.

CHAPTER-2

Disaster Concept in Railways

2.1 Disaster is a sudden and great calamity, which causes or has the potential to cause deep distress to Railway users, passengers, staff and their families. However, there is a distinction to be made between a disaster and an accident. Accidents are occurrences where safety has been affected, whereas Disasters, are those situations which cause acute distress to passengers, Railway users, staff and their families. Disaster management in the Railway context envisages expeditious, orderly, effective and adequate relief measures in case of a disaster. Given the size and complexity of the Railway network and the antequely peculiar nature of each Railway disaster, it is very difficult to precisely lay down the exact line of action for each and every contingency. Continual efforts have been made by the Railways to evolve a well organized and well- planned system for handling different situations on the basis of the experiences gained over the time.

2.2 Definition of Disaster as per Disaster Management Act, 2005

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-

- (i) Prevention of danger or threat of any disaster;
- (ii) Mitigation or reduction of risk of any disaster or its severity or consequences;
- (iii) Capacity-building;
- (iv) Preparedness to deal with any disaster;
- (v) Prompt response to any threatening disaster situation or disaster;
- (vi) Assessing the severity or magnitude of effects of any disaster;
- (vii) Evacuation, rescue and relief;
- (viii) Rehabilitation and reconstruction”

First four points have to be dealt with service department before any accident is taking place and last four points have to be dealt with jointly by all departments in control organization and all officers in the Divisions. Help from Government, non-Government and private organization may be taken

2.3 Definition of a Disaster on Railways:

(Railway Board letter no. 2003/Safety/9DM)/6/4 Pt. dated 06.01.2009)

“Railway Disaster is a serious train accident or an untoward event of grave nature, either on the railway premises or arising out of railway activity in that area, due to natural or man-made causes, that may lead to loss of many lives and/or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating large scale help from other Government/Non-government and Private Organizations.”

Despite the earnest efforts taken to manage every disaster efficiently, in some train accidents involving heavy casualties, the relief and rescue operations could not be resolved satisfactorily. Accidents involving heavy casualties and in difficult terrain like ghat sections with a number of bridges, tunnels, cuttings and also bad weather conditions, make the rescue

and relief work more difficult and necessitates the assistance of specialized outside agencies in addition to Railways' own resources.

Many serious train accidents are also disasters and hence, every Railway staff should be in a position to identify the characteristics of different disaster situations.

2.4 Strengths of the Railways to handle a Disaster: -

In handling disasters, Indian Railways is in a unique position as it has a number of strengths not available with many other departments of Government of India. These include:

- (i) Railways own Communication Network.
- (ii) Operating Control on each Division linked with each Station.
- (iii) Territorial Army Units.
- (iv) Uniformed force of RPF/RPSF
- (v) Civil Defence Organization
- (vi) An army of Gangmen spread out all over the Indian Railways.
- (vii) Scouts and Guides.
- (viii) Well equipped ARTs/ARMEs at different locations with trained and dedicated staff.
- (ix) Railway own doctors and Hospitals /Health Units Situated at different locations throughout NWR.
- (x) Each of the above can be made use of to handle adversities depending upon requirement to handle the disaster.

Railway weakness to handle Disaster:

- (i) Absence of Tunnel cutting equipment – in case of collapse of a rail Tunnel, expertise and related equipment on this aspect is totally lacking.
- (ii) Non-availability of trained divers for extrication of passengers and/or casualties (dead bodies and drowning/drowned passengers) from a train fallen down on the river/lake etc. Help of sports persons can be taken for this; the time of their mobilization is a factor to be kept in view.
- (iii) Non-availability of cranes operated from a ship/barge for lifting of the coaches/bogies from a water body.
- (iv) Ability to handle a CBRN Disaster and major fire
- (v) Limited resources to handle a terrorist attack on a train and/or a station, other railway premises etc.

In such scenario Indian Railways seek assistance from NDRF/SDRF/Armed forces/ Navy/Government/ Non-government agencies

2.5 Nodal department for Policy Formulation on DM on Indian Railways:

- The preparation of the Disaster Management Plans on Indian Railways and on the Zonal Railways in co-ordination with the different Departments of the Railway, other Central/State Govt. agencies, NGOs, Private agencies, etc. has to be done by the Safety department in the Railway Board, on the Zonal Railways and Divisions.
- The Hospital DM plans and the Security arrangements (drills etc) shall be prepared and coordinated by the Medical and the Security department respectively.
- The Management of Floods, Cyclones, Earthquakes, Landslides, etc. and preventive action to be taken for mitigation shall be coordinated by the Civil Engineering Department.
- The Rescue and Restoration DM Plans including preparing plans and procurement of specialized equipment and rescue centric training of personnel has to be coordinated by the Mechanical Department.

2.6 Authority to declare a Disaster on Railways:

(Railway Board letter no. 2003/Safety/9DM)/6/4 Pt. dated 06.01.2009)

- Railway Board has also approved to nominate GMs, AGMs or PCSOs (when GM/AGM is not available) for declaring an untoward incident as Railway Disaster.
- With the adoption of the above definition of railway disaster, it needs to be appreciated that not only a serious train accident may turn into a railway disaster, if not handled and managed properly, there may be many more railway related events which may not even involve human lives but may turn into disasters for which necessary prevention and mitigation measures are to be taken by the railways beforehand.
- Zonal Railways will ensure that prevention, mitigation, preparedness, rescue and relief related issues covering all types of disasters affecting railway system are addressed and their details are also appropriately incorporated in their Disaster Management plans.

2.7 Objectives of Disaster Management

2.7.1. The objective of the Disaster Management Plan is to achieve:

- Instant Disaster Trigger Mechanism.
- Rapid Access to reach the site of accident within “**GOLDEN HOUR and render Medical Care**” –using GIS (Geographic Information System) and data bank to ensure quicker means to render medical help and to prevent avoidable loss of life.
- Minimising disaster effects - using GIS, data bank, quicker means to call for all the data logistics and infrastructure to redress the human calamity.
- Saving lives by quick extrication of victims and effective on-site Medical Management.
- Stabilisation of condition by quick restoration.
- Expeditious extraction and shifting to rescue vehicle(s).
- Care and concern for the affected customers/passengers.
- Speedy transportation to hospital.
- Proper and timely dissemination of information to public in the aftermath of the Disaster.
- Defining responsibilities of various staff/departments.

2.7.2. Key Concepts:

- Disaster
- Disaster Management
- Disaster Management Act 2005
- Golden Hour
- Trigger Mechanism
- Incident Command Control System
- NDRF
- Triage – a) Site Triage & b) Hospital Triage
- Psychological rehabilitation
- National Building Code - 2005

Instant response, relief and rescue are primary objectives of Disaster Management Plan. With the enactment of Disaster Management Act 2005, it is widened to the following areas:

- Prevention, Preparedness & Capacity Building
- Preparation of Data Bank
- Streamlining the Logistics of Railways
- Seeking assistance from State Government and involvement of Local Civilian Authorities
- Effective Trauma Care

- Proper Trigger Mechanism to ensure adequate medical care within “Golden Hour”
- Divisional/Zonal Disaster Management Plan
- Making use of Non-Railway Resources
- Maintenance of ART to have failure proof service
- Defining responsibilities of various staff/departments
- In addition, DM Plan should also be a golden opportunity for developmental process, in which quality and standard of construction process shall be based upon standard civil engineering procedures.

2.7.3. Trigger Mechanism (Emergency Response System):

Trigger Mechanism has been conceptualized as an emergency quick response mechanism which, on energising would, spontaneously set the vehicle of management into motion on road to disaster management process. The underlying assumptions behind this concept is that the process and mechanism of responding have been planned earlier and response activities would start as soon as the information is received about a disaster or impending disaster by any point in the whole mechanism.

2.8 The Quick Response Mechanism in case of Railway Accident given below:

1. Railway Accident.
2. Information by Guard/LP/SM/Railway staff/public from site to control office.
3. Relaying of information by control to all officers.
4. Railway officials by train provided first Aid.
5. Ordering of ARTs/ARMVs/BD by CTNL.

Brief Duties of Department				
Operating	Medical& Security	Mechanical	Commercial	S&T& Electrical
Movement of ART/MRV/BD trains. -Maintenance of Log. -Cancellation / regulation / Diversion of traffic.	Medical Dept. ✓ Rescue operations ✓ Shifting of injured persons. ✓ Preparation of dead / injured persons list. Security: ✓ Rescue operations. ✓ Crowd control. ✓ Law & Order ✓ Securing luggage/ parcels	-Rescue and Relief operations -Restoration of rolling stock, Track, OHE and other equipment. -Maintenance of SPART/ART/ AMRV/ BD trains.	-Catering -Transportation of passengers -Media Management. -Maintenance of Enquiry Booth. -Payment of exgratia	S&T Communicati on network. Restoration of signaling system. Electrical Dept. Lightingarran gements.

2.9 Types of Disaster

Disaster in the Railway context was traditionally a serious train accident, caused by human/ equipment failure, which may affect normal movement of train services with loss of life or property or both. This is now extended to include natural and other man-made disasters. Some of the disasters are listed below with a few examples.

2.9.1. Train Accident related/Human/Equipment failure Disaster:

Disasters/ accidents may be caused by human/equipment failure, which may affect normal movement of train services with loss of life or property or both.

Types of Disasters

Accident Related	Natural	Manmade
Collisions (with a huge number of casualties)	Earthquakes	Setting fire to a train, Railway installation and railway property.
Train marooned (flash floods)	Floods	Bomb blast at Railway station/Trains and other railway installations
Derailments at a bridge over a river and coaches falling down;	Storm/Cyclones/ Tornadoes	Chemical (Terrorism) Disasters
Drailment of a train carrying explosives or highly inflammable material	Tsunami and Snow Avalanches etc.	Biological Disaster and Nuclear Disaster
Fire or explosion in trains	Landslide	Terrorism /Security related crises etc.
Tunnel collapse on a train	-	Placing of obstructions on track to cause wide spread disruption to traffic
Train washed away in cyclone	-	Situation of riots where large scale loss of life and propertyis involved/envisaged

Note-For detailed classification of train related Accident, refer to Chapter II of Accident Manual of NWR and for reporting of Accidents refer Chapter III of the same.

Disaster Management Plan of Zonal Railways (At Headquarter and Divisional levels)

3.1 Preparation of DM Plans on Zonal Railways

Railway Board's letter No. 2003/Safety-I/6/2 dated 23.05.2003 & 29.09.2003 and 2009/Safety (DM)/6/14 dated 30.11.2009 has laid down the requirement of Disaster Management Plan based on DM Act 2005 and NDMA guidelines. Instructions contained in **Disaster Management Plan for the Ministry of Railways** published in April-2016 also has been taken into cognizance while formulating the **Disaster Management Plan of North Western Railways**.

Zonal Railways will prepare Disaster Management Plans at HQ and Divisional Levels as per the provision of Disaster Management Act, 2005 and DM Plan of the Indian Railway (prepared by Railway Board).

The Plans of the Zonal Railways should detail for all types of disasters, the preventive, and mitigation and preparedness measures being taken by the railways and also the rescue, relief and restoration systems in place to meet with them. NDMA guidelines, instructions issued by the Boards office from time to time and the action plan as framed by the Zonal Railways will form the backbone of the DM Plans of Zonal Railways.

3.2 Divisional Disaster Management Plans will contain division specific information. It will generally contain divisional action plan for dealing with all types of railway disaster. It not be restricted only to detailed inventory of Railway and non-Railway resources as envisaged in High Level Committee's Report on Disaster Management. It should focus mainly on further new developments of sharing of resources with all stake holders. It should also have, thereafter, divisional specific information like road maps, etc. Information common to all divisions of a Zonal Railway may be replicated uniformly in DM Plans of all divisions of the Zonal Railway. Divisional Specific information need not be contained in headquarter DM Plan.

3.3 Headquarter level Disaster Management Plans will have information common to all divisions of Zonal Railway. It will generally contain Railway's action plan for dealing with all types of Railway disaster. Action items along with their progress will be detailed for all type Railway disasters. Contrary to the divisional Plan this will be more centric towards prevention, mitigation and preparedness than rescue and relief. Information like formation of relief and rescue teams at the accident site, Disaster Management Control Cell, Duties of various officers/officials etc. in addition to the information specific to headquarter will be contained in this plan. Information common to all divisions of a Zonal Railway may be replicated uniformly in DM Plans of all divisions of Zonal Railway.

3.4 All divisions Disaster Management Committee Headed by DRMs will be in regular touch with District Disaster Management Committee and other Government Departments who are having resources to meet the challenges developed due to the disasters. DRM will also have the full knowledge and resources available with State Government Departments, NGOs and Private Party etc. Coordination between the concerned organizations can be done by visiting one organization by the others. Even combined Mock Drills can be done by the participation of concerned Department at one place. All divisions should be fully aware of the local; civil, army and other resources available for supplementing their disaster management efforts as and when required. On getting information of Accident

related disaster, DRM will immediately inform HQ Emergency Control, concerned District Disaster Management Committee(Collector& SP) and also HQ /Rly Board if assistance of NDRF is required.

- 3.5** The Disaster Management Plan of each division should contain following information:
- (i) Important telephone nos. including Mobile Nos. of Railway officials at both Zonal & Divisional level and Telephone Nos. of all stations, blocks etc.
 - (ii) Inventory of medical facilities within division, Doctors, Hospitals, Nursing Home and Ambulance
 - (iii) List of phone nos. of stations, their respective blocks, Districts and states.
 - (iv) Details of District and State officials.
 - (v) Details of fire service stations with contact phone nos.
 - (vi) Details of defence establishment including Army, Navy, and Air Force.
 - (vii) Location of /ARTARME/SPART and of adjoining divisions and of adjoining Zonal Railway
 - (viii) Details of important bridges and locations
 - (ix) List of helipads/location where a small plane or helicopter can land.
 - (x) List of social organizations/NGOs.
 - (xi) Inventory of agencies with earth moving equipments like road cranes/Bulldozers boats, electrical decorators, diving equipments etc.
 - (xii) Establishments having tents and decorations equipments.
 - (xiii) Details of paramilitary establishments.
 - (xiv) Details of skilled divers with their name and contact details.
 - (xv) List of Forensic personnel.
 - (xvi) Details of Road Transport facilities, distance maps superimposed on division map, detailed road map etc.
 - (xvii) Details of forensic personal
 - (xviii) List of materials available in each ARTs/ARMEs
 - (xix) List of Government and private helicopter service provider/their contact numbers

3.6 Control offices and Stations:(As per HLC Recommendation No.14)

- 3.6.1** Divisional control office must have a ready updated list of names, addresses, telephone numbers and any other relevant information of the following.
- (i) For every station/section of a Division, fastest approach by rail or road.
 - (ii) Detailed road maps.
 - (iii) Locations where a small plane or a helicopter can land (during day or night).
 - (iv) Local doctors, hospitals, polyclinics, nursing homes, etc. at all major junctions, along with facilities available.
 - (v) Officials of civil administration, district- wise.
 - (vi) Senior officials of state administrations.
 - (vii) Defense establishments, including army, navy and air force.
 - (viii) Paramilitary establishments (BSF/CISF, etc.)
 - (ix) Names of addresses of Divers (Local/Police).
 - (x) Names & addresses of Boatmen & Availability of Boats.
 - (xi) Social, Voluntary, Industrial and other non- government organizations.
 - (xii) Organizations having road cranes, bulldozers, etc.
 - (xiii) Organizations having flood light equipment etc.
 - (xiv) Establishments having communications facilities, etc.
 - (xv) Establishments having tents etc.
 - (xvi) Fire brigade stations.

- (xvii) Road transport depot- both State Government and private.
 - (xviii) Local Air and TV stations.
 - (xix) List of ARTs/ARMEs with adjoining division of the home Railway as well as that of adjoining Zonal railways.
- Details of relevant items pertaining to each station must be available individually at major stations also.

3.6.2 Display of addresses of Government/ Railway Officials and other particulars at stations.

At each Railway Station, a complete list must be maintained and hung at a conspicuous place, indicating the following-

- a) Government officials in whose jurisdiction the station comes; along with their name and places of their Hqrs. and contact Numbers.
- b) District Magistrate or Dy. Commissioner, Sub Divisional Officer/ Magistrate.
- c) District Superintendent of Police.
- d) District Superintendent of Government Railway Police.
- e) Inspector General of Railway Police.
- f) Officer in charge of Local Police Station.
- g) Officer in charge of Government Railway Police. Civil Surgeon.
- h) Post Master General.
- i) Superintendent of Post and Telegraph.
- j) Inspector of Post and Telegraph.
- k) Base stations of Accident Relief Medical Equipment.
- l) Base stations of Accident Relief Train.
- m) Nearest Railway, Civil, Military & Private Hospital or Dispensary and Local Doctors indicating the distance from the station.
- n) All Railway officials concerned with accident and their jurisdiction.
- o) Such road vehicles with the names of the Drivers and addresses which can be called for in case of urgency.
- p) List of persons living in the locality who have passed First Aid examination.

3.6.3 In Railway Hospital or Dispensary/ Health Unit

In each Railway Hospital or Dispensary, a complete list of Railway, Civil, Military or Private Hospital or Dispensary and local Doctors, organizations having Ambulance facilities, NGOS, and voluntary organizations, in the nearby localities, indicating the distance from the nearest station and details of facilities available shall be maintained and kept in a conspicuous place along with their contact Number.

List of Railway hospitals, dispensaries/health units, private practitioners and proforma for information given in Appendix-D of Accident Manual of NWR.

This information's should be included in DM Part-2 of the division.

CHAPTER 4

Station Disaster Management Plan

1. Type of Disaster that can occur at Railway station:

S. No	Category	Type of Disaster
1	Human/Equipment Failure	i. Collision ii. Fire in train. iii. Accident at LCs iv. Stampede
2	Natural Calamity	i. Earth Quake. ii. Flood/Breaches. iii. Storm/Cyclone iv. Tsunami/Tornado. v. Land Slide.
3	War/Terrorist attack	i. Bomb Blast ii. Missile attack. iii. Chemical Attack. iv. Setting Trains on fire.

2. **Resources available with station staff:** There is scanty staff posted at stations. They are deputed at stations to handle train operations and for day to day maintenance of station and surrounding. Therefore, they may not be able to deal with such situation on their own, however, they may take preventive measures to by communicating the type of disaster and extent of damage. They have to carry out responsibility as –

a) Cabin men (where available)

- In case of an accident, he shall first put back the related signals to ON position immediately and put stop collars on the relevant points.
- He shall reverse the points against the train involved in the accident.
- He shall not temper with the interlocking system.
- He shall preserve clues and evidences.
- He shall keep readily available all the cabin records and do not temper the entries made in train passing records.
- He shall be in close contact with SM on duty and strictly obey the orders/instructions.
- He shall not leave the cabin without his reliver and without permission of the competent authority.

b) Pointsmen

- He shall pilot the first train while dispatching as per instructions from on duty SM/SS.
- He shall report the position of the adjacent line whether it is faule or not and also ensure clearance of fouling mark.
- If train caught fire, he shall ring the bell continuously to inform ON & OFF duty staff and then use fire extinguishers, water buckets, sand buckets provided at the station to extinguish the fire.

- 3. Availability of Station Approach Road Map** – Every station should have a proper station approach road map alongwith its GPS coordinates so that the same can be made available to the assistance / service providers as required.
- 4. Modes of communications available at station:**
 - a. Block telephone/auto phone to communicate with adjoining stations.
 - b. Gate telephone to communicate with adjoining LCs.
 - c. VHF set/walky-talky to communicate with LP and guard.
 - d. Control Phone/auto phone to communicate with divisional control.
 - e. DOT (BSNL)/Mobile phone to communicate with civil authorities and service providers.
- 5. Action to be taken by Station Superintendent/Station Master at the time of Disaster:**
 - i. Communicate to adjoining station for not to dispatch any train to affected station.
 - ii. Communicate to adjoining gateman of mid-section to stop any approaching train.
 - iii. Communicate with LP and guard of approaching train to stop where it is and not to proceed further.
 - iv. Communicate to Chief Controller/Sectional Controller, who will further inform DRM/ADRM and all BOs at divisional office.
 - v. Protect the site as well as of adjacent lines.
 - vi. Preservation of clues and evidences.
 - vii. Communicate to the followings:
 - a. Civil Authorities
 - b. Fire Brigade
 - c. Hospital and Ambulance (Govt. &Pvt.)
 - d. Local Police for crowd management.
 - e. Local Administration
 - f. NGOs
 - g. Local MP/MLA
 - h. Civil Defence.
 - i. NDRF/SDRF.
 - j. RPF/GRP
 - viii. Specific requirement in terms of service providers: -
 - a) Crane/JCB/Earth Movers service.
 - b) Transport service.
 - c) Catering service.
 - d) Gas Cutting Equipments.

National Disaster Response Force and National Disaster Management Authority

National Disaster Response Force (NDRF)

5.1 Mutual Assistance in case of Disaster:

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.

In most cases of a disaster, other than a train accident, the State Governments as well as the Zonal Railways would, therefore, requisite 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.

5.2 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/PCSOs 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.

The earlier instruction for direct requisition of NDRF by PCSO/DRMs was stand revised vide RB letter **No. 2003/Safety(DM)/6/3 dated 09.11.2009**. For requisitioning of NDRF in times of a disaster, the Zonal Railways / Divisions have to approach Railway Board who will request NDMA to direct the NDRF Battalions to proceed to site.

5.3 For requisitioning NDRF in times of a Disaster, the Zonal Railways / Division have to approach NDRF/HQ or Nearest NDRF battalion to proceed at the site.

- (i) NDRF 6th battalion is located at Jarod Camp, Teh-Wagodia, Vadodara, Gujrat.
- (ii) Administrative control lies with rank Commandant, NDRF at Vadodara, Gujrat.
- (iii) Railways can call NDRF battalion on their control phone No. 02668-274245
- (iv) Battalion has sufficient Transport facility. Special trains can be run, if no other faster means are available.
- (v) In NWR jurisdiction there is NDRF Troops with trained staff at Nareli near Ajmer.
- (vi) Detailed locations and contact No. given in DM plan part-II
- (vii) For requisitioning of NDRF in times of a disaster, the Zonal Railways/Divisions have to approach Railway Board who will request NDMA to direct the NDRF Battalions to proceed to site
- (viii) In Safety Directorate, **Director Safety-II** is Nodal officer to report the Accidents / Disasters.

5.4 Format for seeking NDRF Help in Case of Disaster

**The Commandant,
6th Bn NDRF, Jarod Camp
Teh-Wagodia,
Vadodara – 391510**

Sub: Request for deputing NDRF personnel for relief and rescue operations

Dear Sir,

There has been serious accident on North Western Railway over -----division on ----- station in -----section at-----hrs. on -----

From the information received till now it appears that the accident is of a serious nature and could lead to large number of casualties. Although Railways are making all efforts to take up relief and rescue operations, it is felt that the participation of the NDRF personnel could be of great help in speeding up the process and reducing casualties. In view of this you are requested to immediately depute adequate number of men from your battalion with necessary relief equipments to the accident site at the earliest. The movement of your battalion indicating the time and route of travel from place to the accident site may be intimated to the undersigned by E-mail/FAX so as to ensure adequate coordination. You are also requested to indicate the contact No. of the senior most personnel who will be traveling with the NDRF Group. Detailed information about accident is furnished herewith in separate enclosures in **Annexure-1**.

Encls-As above

Divl.Rly. Manager/Chief Safety Officer

E-mailID-----

FAX No.-----

Copy to:

1. Adviser (Safety), Railway Board [Fax No. 011-23386215] for kind information and necessary action please.
2. NDMA HQ [Fax No. 011-2670170] NDMA Bhawan A-1, Safdarjung Enclave, New Delhi
3. NDRF HQ [Fax No.011-23438136] National Disaster Response Force (NDRF), 6th Floor, NDCC-II Building, Jai Singh Road, New Delhi - 110001.
4. DRMs- Ajmer, Bikaner, Jaipur & Jodhpur for information and necessary action please.

Annexure-1**Accident Information**

1. Travel Co-ordinate -----
2. Name of the District----- (where accident occurred)
3. Distance from NDRF BN HQ -----
4. Name and Contact No. of Nodal Officer of railways whom to be approached for co-ordination-- -----
5. Timing of placing special train at a station (nearest to NDRF BNs.) for swift movement
-----will be followed as per advice of NDRF BNs.

Divl.Rly. Manager/Chief Safety Officer

NDRF Battalions adjoining to NWR

S. No.	Designation and Address	STD Code	Telephone No.	Fax Nos.	Unit Control Room No.
1	Commandant, 6th Bn NDRF Jarod Camp, Teh-Wagodia, Vadodara, Pin – 391510	02668	274470	274245	02668-274245 09723632166
2	Commandant, 7th Bn NDRF Bibiwala Road, Bhatinda (Punjab)-151001	0164	2246193	2246570	0164-2246193 0164-2246570
3	Commandant, 8th Bn NDRF. Kamala Nehru Nagar, Ghaziabad, UP- 201 002	0120	2766013	2766012	0120-2766618 0-9412221035

NDMA Control Room

Name	Office	Fax	Mob.	E-mail id
Control Room	011-26701728 011-1078	011- 26701729	9868891801 9868101885	controlroom@ndma.gov.in, ndmacontrolroom@gmail.com,

NDRF Head Quarter

Designation	Contact	Fax No.	E-Mail
Control Room	011-23438136	011-23438091	hq.ndrf@nic.in
Reception	011-23438017 011-23438019		

Control Room, MHA (Internal Security)

Tel. No.	23092763, 23092885, 23092923, 23093054
FAX No.	23092398, 23093750
ALL INDIA COVID-19 TOLL FREE	1930 & 1944(North-East)
E-Mail	locdm.mha@nic.in

Control Room, MHA (DM Division)

Helpline Numbers	011-23438252 011-23438253 011-1070
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5.5 National Disaster Management Authority (NDMA)

Powers and functions of National Authority:

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

The National Authority may --

- (a) lay down policies on disaster management;
- (b) approve the National Plan;
- (c) approve plans prepared by the Ministries or Departments of Government of India in accordance with the National Plan;
- (d) lay down guidelines for the State Authorities to draw up the State Plan;
lay down 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;
- (e) coordinate the enforcement and implementation of the policy and plan for disaster management;
- (f) recommend provision of funds for the purpose of mitigation;
- (g) provide such support to other countries affected by major disasters as may be determined by the Central Government;
- (h) take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disaster as it may consider necessary;
- (i) lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management;

5.6 National Plan:-

- (1) There shall be drawn a plan for Disaster Management for the whole of the country to be called the National Plan;
- (2) 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;
- (3) The National Plan shall include-
 - (a) measures to be taken for the prevention of disasters, or the mitigation of their effects;
 - (b) measures to be taken for the integration of mitigation measures in the development plans;
 - (c) measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster;
 - (d) role and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (i), (ii) and (iii).
- (4) The National Plan shall be reviewed and updated annually.
- (5) Appropriate provisions shall be made by the Central Government for financing the measures to be carried out under the National Plan;
- (6) 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.

5.7 Role of various organisations during Disasters:

(i) Army/ Air Force

- a) Assume command of operations and assist local police.
- b) Evacuate people to safer places.
- c) Carry out rapid assessment of the situation.
- d) Coordinate with CRPF, Rapid Action Forces and NSG, local police.
- e) Deploy equipment for rescue operation choppers.
- f) Provide effective communication network.

(ii) Civil Defence

- a) Help police and administration in rescue work.
- b) Evacuate people to safe places.
- c) Deploy ambulances, first aid, fire vehicles, fire men, etc.

(iii) Home Guard

- a) Help police in maintaining law and order situation.
- b) Evacuate people to safer locations.

(iv) Department of Medical and Health

- a) Deploy ambulances, mobile teams, and paramedics and make arrangements of stretchers, first aid kits, beds, blood, medicines, etc.
- b) Carry out triage and provide first aid to injured people.
- c) Evacuate injured to nearby hospitals.
- d) Arrange for extra beds in the hospitals, avail the services of railway, private, army hospitals.

(v) Municipal Corporations / Fire Department –

- a) Deployment of fire vehicles, rescue equipment, ladders, water tankers for replenishment, tractors, cranes, gas cutters and other equipment like fire suits, masks, blankets, ropes, generator sets, etc. and also ensure adequate availability of labourers.
- b) Search, rescue and evacuate people to safer areas.
- c) Make available all types of fire extinguishers, equipment, vehicles, etc.

(vi) NGO -Provide first aid, health services, financial assistance, relief materials, etc.

5.8 CIVIL DEFENCE

5.8.1 Importance of Civil Defence

While global geo-political factors have reduced chances of traditional wars, new challenges have emerged for the community in the shape of natural calamities or human-induced disasters, resulting in large scale destruction of property, loss of human life and stabilization of normal life in society. Since the community is invariably the first responder to any disaster situation, adequate awareness and preparedness of the community to respond to any such situation can be crucial in mitigating damage and suffering. Civil Defence, being a community based voluntary organisation, can in addition to rescue, relief and rehabilitation, play a stellar role in the field of public awareness as well as community capacity building to face any disaster.

5.8.2 Importance during Disasters

The Civil Defence organization should enhance its capacity to act as first responder to any disaster situation with the help of its volunteers at different levels. It should have its own 'Quick Reaction Teams'(QRT) of volunteers with pre-designated roles and

responsibilities, based on vulnerability and quick mobility to respond to any disaster situation. The QRT should also have its communication network to keep in touch with the Civil Defence control room on real-time basis for reporting about its actions and getting instructions from the control room.

After initially responding to the disaster with its own and locally available resources of police, etc., the Civil Defence may integrate itself with the Disaster Management efforts launched under the aegis of the state/DDMA. It may deploy its personnel, volunteers and other material resources such as communication equipment, Disaster Management vehicles, etc., in consultation and coordination with other agencies. In particular, the Civil Defence organization can supplement the government efforts during and after a disaster, in the following areas:

- (i) Assisting in taking precautionary measures whenever any advance warning is received about any
- (ii) Natural disaster.
- (iii) Helping in evacuation of population to less vulnerable areas depending on the nature of disaster.
- (iv) Launching search and rescue operations.
- (v) Providing first aid to injure and transporting them to medical centres.
- (vi) Setting up 'Information and Guidance Centres' for providing information regarding missing persons,
- (vii) injured, etc., and also information about the nature of facilities and assistance available to affected people
- (viii) Participating in distribution of relief material to affected people.
- (ix) Assisting police/traffic police in ensuring smooth movement of emergency vehicles in the affected areas.
- (x) Helping the local administration in assessing the extent of loss to life and property.
- (xi) Training Infrastructure in States have been upgraded
- (xii) Disaster Awareness Training is conducted involving Civil Defence, NCC & NYKS in Districts/States

5.9 Role of Railways in the event of "AIRCRAFT IN DISTRESS"

Railway has an important role in assisting the Search and Rescue Organization by ensuring speedy transmission of information relating to aircraft in distress to the Rescue Coordination Centre through the Railway Control room for taking appropriate action. Railway controls, when requested by the Rescue coordination Centre of alerting post to assist in locating a missing aircraft shall direct all stations and staff in the area to be on the lookout. In the event that aircraft in distress falls on or near Railway lines or infringes railway tracks. Railway control shall speedily transmit information relating to aircraft to Rescue coordination centre for appropriate action. Railway controls when requested by the Rescue coordination centre or alerting post to assist in locating a missing aircraft shall direct all stations and station staff at stations in the vicinity of the area to be alert and on the lookout. **Contact details given in Part-II**

5.10 Role of State Disaster Response Force (SDRF)

SDRF has also been constituted in the State with the assistance of RAC and is stationed at 3 locations i.e. Jodhpur, Jaipur & Kota. Initially, it is comprised of trained and experienced personnel of RAC. The force has been provided with expertise training and equipment to serve as state's response team during disasters. The SDRF will play a pivotal role in any disaster, especially during the first 72 hours. Therefore, raising more battalions will be essential.

Within the SDRF, selected personnel shall be trained on specializations, for example, personal protection, evaluation of radiation exposure, decontamination, and on-field radiation injury management. Further, these personnel will facilitate the task of Quick Reaction Medical Teams (QRMTs)/ Quick Reaction Teams (QRTs)/ Medical First Responders (MRFs), etc., to provide the necessary assistance at times of Chemical disasters and Chemical Terrorism Disasters (CTD). Likewise, it will be applicable for other disasters too. It would be ensured that the teams have the latest equipment for locating survivors in the debris. The SDRF battalions would also be provided with communication equipment for establishing last mile connectivity.

Disaster Management Act, 2005

4.11 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 & 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, air forces and 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, 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, 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 sub section (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 sub-section (1) to the National Authority, as and when required by it.

Disaster Communication System, Information Flows and Alerts.

6.1 Incident Response/Command System (ICS/IRS):

- The National Policy on Disaster Management lays down guidelines for a chain of command in a structured unit to handle various types of Disasters as under :-
- A traditional command structure exists in the administrative hierarchy which manages disasters in India. It has been planned to strengthen and professionalize the same by drawing upon the principles of the ICS/IRS with suitable modifications.
- The ICS/IRS is essentially a management system to organize various emergency functions in a standardized manner while responding to any disaster.
- It will provide for specialist incident management teams with an incident commander and officers trained in different aspects of incident management, such as logistics, operations planning, safety, media management, etc.
- It also aims to put in place such teams in each district by imparting training in different facets of incident management to district level functionaries.
- The emphasis will be on the use of technologies and contemporary systems of planning and execution with connectivity to the joint operations room at all levels.
- The Railways have their own ICS/IRS as they have had to deal with crises like situations and mini-disasters in the day to day operational working and especially with handling of train accidents

6.2 Coordination–Integrated Command System of Railways with Integrated Operations Centre of MHA:

- Traditionally the Control Room in each Division monitors on a “Real Time” basis the train operations. This Control Room is manned round the clock and has representatives of all the departments concerned with train operations as also with abnormalities which may affect train running. The “Command and Control” of the Divisions Control Room is with the operating department who plan, execute and monitor the running of trains (both freight and coaching trains).
- The assistance of a number of departments, viz. Mechanical (Power), Electrical (Power and OHE Traction Distribution), Mechanical (Carriage and Wagon), Civil Engineering (track maintenance and monitoring), Commercial (passenger information interface), Signal and Telecom (through a ‘Test Room’), Security (RPF) etc is given round the clock in the Operations Control Room.
- This control room of the affected divisions on the Railways will act as the “**Incident Command System**” (ICS) to monitor information of the Disaster and to coordinate the organization of various emergency functions, (rescue, relief, mitigation etc) in the disaster areas.
- The ICS of the Divisions will coordinate with the “Zonal ICS” where a similar control room exists, called the Emergency Control in the Headquarters of each Zonal Railway. The “Zonal ICS” will establish liaison with the IOC of the MHA right from the stage of receipt and issue of “Orange or Red Alerts” and also for providing/requesting help in relief/rescue/mitigation to other departments (or State Government) or from them respectively. The Zonal ICS will constantly update the position to Railway Board.

6.3 Disaster Information Flows and Alerts of Disaster

6.3.1 Categorization of Alerts

A Standard Operating Procedure has been prepared for alerts of events of different types and identifies the situations when alerts are to be sent by the IOC. Specific hazards have different categories of alerts. Accordingly, a uniform system has been devised by categorizing each type of alert in stages –**Yellow, Orange and Red.**

For Railways categorisation of Alerts is under.

Category	Description	Stage
Minor	50 or more casualties (inclusive of death and injuries)	Yellow
Medium	51-99 deaths.	Orange
Major	100 or more deaths, or where additional assistance is sought	Red

6.3.2 Action Plan for Communication of Alert Messages

Whenever a crisis is about to be faced, Government of India has laid down systems for warning its respective departments through an ‘Alert’. It should be understood that mere issue of an ‘Alert’ (Yellow or Orange) is not an indication of the occurrence of a Disaster. This only signifies the existence of a crisis for which provisions of the Crisis Management Plan would come into operation.

The Action Plan for Alert Messages lays down as under:

- (i) All concerned Ministries/Departments/Organisations/Agencies will report events to IOC, MHA.
- (ii) While generating and transmitting alerts to IOC (MHA), the concerned agency, will indicate the category of the event as well as its corresponding stage (Red/Orange/Yellow).

6.4 Action on Division/Zones on Orange/Red Alert :

On the issue of an Orange Alert (or of a higher level) the Responders have to be activated as required for relief etc. as under:-

- (i) Mobilisation of Gangmen
- (ii) Hospitals to mobilize Doctors and Para-medical staff
- (iii) Civil Defence units to be activated
- (iv) RPF and RPSF deployment
- (v) Scouts and Guides for colony care and passenger guidance
- (vi) Operation and manning of the disaster control room
- (vii) Coordination amongst various stake holders through advance warnings
- (viii) Communication system to be ensured and back ups to be in readiness for immediate use when required.
- (ix) TA Units Deployment; In case the existing railway staff may not be able to maintain train services to be operational, the TA units have to be mobilized. It takes 2-3 days for the deployment of the TA unit after issue of their mobilization order; hence advance warning is of essence.

6.5 Monitoring/Reporting of Effects of Disaster

The Safety Dte. in the Board would be given information regarding Orange/Red Alerts. On the declaration of an incident as a Disaster by a State Government or District Administrator or even by the GM/AGM of the Zonal Railway, the PCSO would give time to time updates to the Safety Control in Railway Board of the Situation. Assistance of other departments would be made available by the GM to the Safety Department on the zonal Railways.

6.6 Standard Operating Procedures (SOPs)

The Ministry of Home Affairs (MHA), as the nodal Ministry is responsible for coordinating response and relief efforts with various Ministries/Departments of the Government of India, State Governments and District Authorities. They have prepared the Standard Operating Procedures (SOPs) for handling manmade disasters (for i.e. Terrorism related disasters) for which they are earmarked as the lead Ministry for disaster response, relief and mitigation.

All Central Ministries, State Governments, District Authorities and other stakeholders will prepare SOPs in consonance with the National and State Plans. The SOPs will be prescribed for activities like search and rescue, medical assistance and casualty management, evacuation, restoration of essential services and communication at disaster sites, etc. the other important activities are provision of food, drinking water, sanitation, clothing and management of relief camps. Detailed SOPs will also be devised by all concerned for dispatch, receipt and deployment of central resources.

6.7 Standard Operating procedure (SOP) on Railways:

6.7.1 Natural Disasters:-

The Civil Engineering Department at the field level and on the Divisions gets information through advance warning sent by the respective Government Departments on the possibility of Floods, Cyclones, Earthquakes and Landslides etc. Depending on the gravity of the disaster/crisis/calamity expected the information would be passed on to the Divisional officers through the Emergency Control which will act as the ICS. Where train operations have to be suspended or regulated the operating departments would be suitably advised. After making the train regulation plan the divisional control would advise the commercial and security departments for management of the welfare of passengers. Alerts to the passengers would be issued through the PR Department of the Railway in the Print and Electronic Media. The DRMs on the divisions shall ensure coordination amongst the departments for ensuring running of train services (including relief special trains) as also relief arrangements for the passengers and for the Welfare of Railways own staff. Assistance of other Divisions and from the Zonal Railways would be taken through the Headquarter of the Zonal Railways (i.e. by involving the General Manager). Coordination with the IOC of MHA and NDMA/NDRF would be through the Emergency Control of each Zonal Headquarter.

6.7.2 Manmade Disasters:-

Different forms of terrorism fall under the ambit of these disasters. A major role has to be played by the Security Department of the Railways who will coordinate with the State Governments and when required the Para-military and other forces. The Security Control of the division will act as the ICS. The Headquarter Security Control will coordinate with the IOC of MHA. A similar system would be followed as above in organizing regulation of train services by the operating department at the divisional, zonal level and also in the Railway Board.

6.7.3 Handling CBRN Disaster

Training of a skeleton number of Medical Doctors in all Divisional Railways Hospitals is to be planned for handling and to provide medical relief for all CBRN (Chemical, Biological, Radiological, Nuclear) disaster and mitigation of BN(Biological, Nuclear/Warfare), BT(Bio-Terrorism).

6.7.4 Chemical Disaster:-

Railways expertise in dealing with mis-happenings like spillage, catching fire etc. of inflammables, Acids & other corrosives are very limited. It is therefore imperative that the respective divisions will develop and nurture co-ordination with those agencies and organizations on their system that have expertise in dealing with the hazardous materials being handled and transported.

6.8 Standard Operating Procedure for Calling Help in case of Disaster / Serious Accident

DRM will inform civil authorities & Police Department of concerned district to rush to help. He will ask for the Medical team also from state Govt. DRM will demand for NDRF battalion through HQ and Rly Board, if required for relief & Rescue operation as they are Medical First Responder (MFR)

Informing Non – Railway Officials for necessary help

- i. DRM/ADRM shall inform the following regarding the accident:
 - a) IG/GRP.
 - b) ADG/GRP.
 - c) District Commissioner/District Magistrate.
 - d) Home Secretary of the state.
- ii. In case POL rake is involved, then IOC/BPC/HPCL officials should also be informed.
- iii. In case Mail bags of RMS are involved, then Postal officials should also be informed.
- iv. Telephone numbers of all DMs, SPs, CDMOs and District Commissioners are available in Zonal/Divisional DM Plans.
- v. Telephone numbers of IOC, BPC and HPCL officials are also available in the Zonal/Divisional DM Plans.
- vi. Telephone numbers of ADG/GRP, IG/GRP, and Home Secretary etc. of Rajasthan, Haryana, Punjab and Gujrat.
- vii. Secretary Rajasthan Disaster Management and Relief Department

6.9 Methodology for seeking coordination from state government:

When any accident falling within the category of section 113 of Indian railway act 1989, occurs the DRM will draft a message containing the details of accident and address it to the District magistrate and other officials of SGRP, Army command Hqrs, etc. Such telephonic/fax message sent to the Head Quarter and the state government as mentioned above shall be confirmed by post.

The District authority will act the district planning, coordinating and implementing body for Disaster management and take all measures for the purpose of disaster management in the district in coordinate with the guidelines laid down by the national authority and state authority.

District wise contact details of all four divisions are given in Disaster Management booklet part- II to contact in case of disaster.

CHAPTER 7

Disaster Preparedness-ARTs/ARMEs

7.0 ACCIDENT RELIEF TRAIN/ VANS

7.1.1 Accident relief medical equipment-

- (i) The Medical Officer in charge is responsible for ensuring that the prescribed contents of the accident relief medical equipment (Scale-I and II) are maintained in the chests and are in good condition, whenever required the medicines, surgical appliances and other articles must be replaced.
- (ii) Where Scale II equipment is stored in the Station building, the Station Manager. Station Masters will be responsible for the safe custody of the boxes. In addition, the medical officer in charge and the Station Manager/ Station Master will inspect this equipment once in a month.
- (iii) Medical Officer in charge of the division will inspect the Scale-I and Scale-II equipment quarterly and ensure that all the prescribed contents are maintained in good condition.

7.1.2 Accident Relief Train

- (i) Items should be in good condition.
- (ii) The person in charge of the Break down is responsible to keep the engine and accident relief crane (if provide) in readiness.
- (iii) The CYM/YM/SMR/SM as the case may be will be responsible to arrange any extra vehicle or brake van for relief work in case of necessity.
- (iv) Inspections of ART /ARME/SPARTs should be done as per instructions given in Accident Manual of NWR.
- (v) ART is stabled on separate sidings having double entry for faster movement in both directions
- (vi) Rescue / Restoration equipments are kept as per Railway Board's instructions

7.1.3 Authority to order movement of ARME & ART to site:-

Controller/CHC will undertake the following action order of priority:

- (i) Give orders to on duty Crew Controller controller/Section / Dy. Chief Engineer/ SM for sounding the Hooter for ARMVs / ARTs with crane if required.
- (ii) CHC will also order movement of ARMV and ART (with 140T crane if required) from adjacent divisions for approaching the accident site from other end after getting approval from competent Authority.
- (iii) Details of ART/ARME in adjacent Railways should be kept and thereafter he will inform his Departmental Officers and Supervisors
- (iv) After sounding of siren, the ARME and ART should turn out within the stipulated target time

7.1.4 Automatic Trigger Mechanism

Sounding of Accident alarm Signals/Hooters/Sirens: The accident alarm Siren/Hooter must be sounded immediately when ARME/ART is ordered.

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

S. No.	Code	Circumstances	Stock to Move
1.	Two long blasts each of 45 seconds duration with 5 seconds break in between.	Accidents in loco shed/ Traffic Yards at Home station	ART
2.	Three long blasts each of 45 seconds duration with 5 seconds break in between.	Accidents outside the home station	ART
3.	Four long blasts each of 45 seconds with 5 seconds break in between.	Main line accident	ARME and ART
4.	One long blast of 90 seconds duration.	Cancellation of ARME/ART.	

Note: -

- The alarm signals/sirens/hooters requiring ARME/ART shall be sounded as prescribed above and shall be repeated once more after interval of five minutes.
- The SSE/C&W, Loco Shed Foreman, SSE (Elect.), SSE(P.way) and all other supervisory staff concerned must ensure that the relief train gangs break down gangs and other staff who are required to go to the accident site in the ARME or ART, thoroughly understand alarm signal/siren/hooter and that their names and addresses are displayed at conspicuous place.
- The official in-charge of the hooter is responsible for its proper maintenance and to keep a trained staff ready, round the clock, for sounding the hooter at once on receipt of orders from the train ordering officials.

7.1.5 Target time for turning out of Medical Relief Van from the siding and their despatch from the stations (AM para 428)

Immediately after the accident alarm siren/hooter is sounded, all staff earmarked for accident relief train shall report at the nominated place. All officials concerned shall report at the ART/ARME if ordered, and proceed with the ART/ARME or to undertake any other duty that may be assigned to them. The Controllers/yard Master/Lobby In-charge/PCR on duty shall immediately take action to arrange for locomotive.

	Medical Van		ART	
	Double Exit	Single Exit	Day	Night
Time for turning out (in minute)	15	25	30	45
Time for dispatch (in minute)	05	05	15	15
Time from ordering to dispatch	20	30	45	60

Note: -

- The above target time for turning out the medical van is reckoned, from the time of ordering to the time are taken in turning out from the siding and kept ready for dispatch on a suitable running line plus 5 minutes for dispatch.
- Both the target time of 30" and 45" for turning out Accident Relief Train are to be reckoned from the time the Accident Relief Train is ordered, to the time the train reaches the exist point. 15" time is the time permitted for departure from the station. Any delay

in ordering or departure of Medical Van/ART must be immediately examined and viewed seriously.

- (iii) At stations where the lay out of the loco and traffic yard are such as to permit a reduction in the time limits stipulated above, the Divisional Railway Manager should laid down shorter time limits.
- (iv) Camera will be provided with the break down in-charge (including that of the break down truck) for taking still photographs of the accident-related evidences. The break down in-charge shall be responsible for the photographs.
- (v) All hooters provided at Ajmer Bikaner, Jaipur and Jodhpur division shall be sounded at every shift every day. The performance of the hooter will be repeated to the control for necessary action. Sr.DEE is responsible to ensure stand-by power supply and devise fool proof testing system so that it works in case of emergency without fail.
- (vi) Road maps shall be kept in the control and in the break down truck for taking prompt decision on deputing break down truck to the site. This will also help in reaching to various level crossing gates quickly. These maps should also be available with all area nodal officers
- (vii) Up-to-date telephone directory containing important telephone numbers (BSNL & Railways), including important civil units such as Police station, fire station, medical services etc. should be available in control office and ART/ARME.
- (viii) Details of Locations and Beats of ARTs, ARMEs (Scale I& II) given in Appendix **B&C** of Accident Manual NWR respectively.
- (ix) Standard Tools and Equipment List of ART/ARMEs, First Aid, POMKA, FA box to gangmen etc. given in Appendix **A** of Accident manual.
- (x) List of Railway Hospitals and Dispensaries given in Appendix **D** of Accident Manual.
- (xi) Maintenance and Inspections of ARTs/AEMEs should be conducted as per para 430 of Accident Manual.
- (xii) Mock Drills and Accident Drills to test the readiness and quick turn out of Relief train should be organised as per para 431 of accident Manual.

7.2 Jurisdiction of ART/ARME/SPART

Location and Beats of ARTs (BG)

Sr. No.	ART		Crane capacity in Tones	Availability of		Jurisdiction of ARTs
	Location	Class		HRE	HRD	
1.	JP	A	140 T	Yes	Yes	Jaipur-Beawar (Excl.) (187 km) Jaipur-Madar-Pushkar (150 km) Jaipur -Degana (Excl.) (164 km) Jaipur-Sawai Madhopur (Excl.) (131 km) Jaipur- Rewari (Excl.) (225 km) Jaipur-Phulera-Dabla (Excl.) (193 km) Jaipur-Ajmer-Chittaurgarh (Excl.) (321 km) JP-CUR (Excl.) (198km)
2	RE (only for minor accident)	C (SPART)	-	Yes	Yes	Rewari-Rajgarh (Excl) (110km) Rewari-Ringus (Excl) (148km) Rewari-Sadulpur (141km) Rewari-Bhiwani Jn. (Incl)- Hissar (Incl)- Sadulpur (Incl) (223km) Sadulpur-Churu (Excl)(141+58km) Loharu Jn.-Sikar (92+122 km)
3	AII (only for minor accident)	C (Tool Van)				AII-COR(Excl) (110 km) AII-BER(Excl) (52 km) AII-PUHT (32 km) AII-FL(Excl) (80 km)

4.	ABR	A	140 T	Yes	Yes	Abu Road-Beawar (Incl.) (253 km) Abu Road - Palanpur (Incl.) (52 km)
5.	UDZ (only for minor accident)	SPART	-	Yes	Yes	Udaipur-Chittaurgarh (Incl.) (115 km)
6.	JU	A	140 T	Yes	Yes	Jodhpur - Luni – Munabao (328 km) Jodhpur-Luni - Marwar (104 km) Jodhpur-Luni – Samdari-Bildi (303 km) Jodhpur- Jaisalmer (294 km) Jodhpur – Pipar Road-Bilara (89 km) Jodhpur-Mertaroad-Degana (Incl.) (149 km) Jodhpur-Mertaroad-Nagaur (Excl.) (161 km) Jodhpur-Mertaroad –Mertacity (119 km) Jodhpur-Mertaroad-Didwana (Incl)(215km)
7.	BME (only for minor accident)	SPART	-	Yes	Yes	BME-MBF(Incl) (119 km) BME-SMR(Excl) (129 km)
8.	LGH	A	140 T	Yes	Yes	Bikaner- Phalodi (Excl) (162 km) Bikaner-Nagaur (Incl) (116 km) Bikaner-Suratgarh (Incl) (182 km) Bikaner-Ratangarh Jn-Didwana (Excl)(224km) Bikaner-Sadulpur (Incl) (238 km) Ratangarh-Sadar Shahar (47 km)
9.	BTI N. Rly	A	140 T	Yes		Bathinda- Suratgarh – Anupgarh (220 km) Bathinda-Hisar-Bhiwani (Excl) (217 km) BTI-Hisar- Sadulpur (Excl) (228 km) BTI-SG NR-Sarupsar- Suratgarh (Excl) (263 km) Hanumangarh-Shri Ganganagar Jn (92 + 39km) BTI-HMH-Suratpura (266 km)
10.	DLI N. Rly.	A	140 T	Yes		Delhi-Rohtak- Bhiwani (Incl)-RE (202km) Delhi-Rewari- Sadulpur (Excl) (233 km) Delhi-Rewari (Incl)-Dabla (Incl.) (167 km) Delhi-Loharu Jn-Sikar (After GC) (296 km)
11.	KOTA WCR	A	140 T	Yes		Chittaurgarh (Incl)– Udaipur (295 km)

Location and Beat of Accident Relief Medical Equipment Scale-I (BG)

S. No.	Location	Class	Availability of HRD	Composition	Jurisdiction of ARMV's
1	Jaipur	Scale-I	Yes	Medical Van + Auxiliary Van	Jaipur – Phulera - Makrana (Excl) (120km) Jaipur – Rajgarh (incl.) (115 km) Jaipur – Swai Madhopur (Excl.) (131 km) Phulera-Ringus (Incl) (55+67 km) * JP-CUR (Excluded) (198 km)
2	Rewari	SPART	Yes	Medical Van + HRE van + Auxiliary Van	Rewari – Rajgarh (Excl) (110 km) Rewari – Ringus (Excl) (148 km) Rewari – Loharu Jn. - Sadulpur (141 km) Rewari – Bhiwani jn.-Hisar– Sadulpur (Included)(223 km) Sadulpur– Churu (Excl.) (141+58 =199 km) Loharu Jn.-Sikar (92+122 = 214 km) *Rewari-Loharu-Sikar-Churu (After GC) (303 km) Till Sikar- Jaipur GC is done. *Rewari-Churu-Sikar (288 km)
3	Ajmer	Scale-I	Yes	Medical Van + Auxiliary Van	Ajmer – Marwar Jn (Excl) (140 km) Ajmer-Bangurgram-RAS (75 km) Ajmer – Phulera (Excl) (80 km) Ajmer- Dhuwala (Excl) (115 km) Ajmer-Puskar (32 km)

4	Udaipur City	SPART	Yes	Medical Van + HRE van + Auxiliary Van	Udaipur City – Chhitorgarh (Incl.) (115 km) Mavli Jn.- Nathdwara (43 + 15 = 58 km)
5	Jodhpur	Scale-I	Yes	Medical Van + Auxiliary Van	Jodhpur–Luni–Munabao (328 km) Jodhpur – Luni –Samdari- Modran (Included) (174 km) Luni –Marwar Jn–Falna (Excl) (32+138 = 170 km) Jodhpur-Phalodi (Included) - Jaisalmer (294 km) Jodhpur–Pipar Road Jn (47 km) Pipar Road- Bilara (47+42 km)
6	Barmer	SPART	Yes	Medical Van + HRE van + Auxiliary Van	Barmer- Munabao (119 km) Barmer-Samdari (Excl.) (129 km)
7	Merta Road	Scale-I	Yes	Medical Van + Auxiliary Van	Mertaroad – Makrana (89 km) Mertaroad - Makrana- Parvatsar (109 km) Mertaroad – Pipar Road Jn. (57 km) Mertaroad- Mertacity (14.5 km) Mertaroad- Shri Balaji (Excl.) (92 km) Mertaroad- Degana – Talchhappar (Included)(165 km)
8	Lalgarh	Scale-I	Yes	Medical Van + Auxiliary Van	Lalgarh – Phalodi (Excl.) (158 km) Lalgarh- Nathwana (Included)(87 km) Lalgarh- Shri Balaji (Included)(85 km) Lalgarh- Ratangarh Jn. – Talchhappar (Excl.) (173km) Ratangarh Jn.–Churu Jn. (Included)(141+43 km) Ratangarh- Sardar shahar (141+ 47 km)
9	Surat Garh	Scale-I	Yes	Medical Van + Auxiliary Van	Suratgarh – Nathwana (Excl.) (91 km) Suratgarh – Anupgarh (78 km) Suratgarh–Hanumangarh (Included)(50km) Suratgarh – Sarupsar-Shri Ganganagar Jn (137 km) Hanumangarh- Shri Ganganagar Jn (50 +39 = 89 km) Hanumangarh- Sadulpur (Excl.) (50+179 = 229 km)
10	Bathinda (NR)	Scale-I	Yes		Bathinda – Hanumangarh (Excl.) (92 KM) Bathinda – Hisar (Excl.) (157 KM)
11	Delhi (NR)	Scale-I	Yes		Rohtak – Bhiwani jn (Excl.) (70+50 KM)
12	Chittorgarh (WR)	Scale	Yes		Chhitorgarh - Dhuwala (Incl) (71 KM)
13	Palanpur (WR)	Scale	Yes		Palanpur – Aburoad – Falna (Incl) (151 KM) Palanpur- Bhildi – Modran (Excl.) (175 KM)

Note: * 1. All additions due to gauge conversion
2. New sections are very long and beats are not in accordance to Golden hour rule. An SPART at CUR (already sanctioned) is needed for new sections and beats will be revised after stationing an SPART at CUR.

Jurisdiction of MG–ARMV

S.No.	ARMV		Availability of HRD	Jurisdiction of ARMV's
	Location	Class		
1	MVJ (MG)	Scale-I	Yes	Mavali Jn- Marwar Jn

7.3 Preparedness of Engineering Department.

The yard stick for Engineering Materials to be kept in Accident Relief trains.

7.3.1 Track Material:

Track materials sufficient to lay 500m of track should be kept loaded on to the BFRs. These BFRs should be kept stabled at a suitable central place in the division so that the same can be moved anywhere in the division in the shortest possible time.

7.3.2 Labour:

- (i) Details in respect of P.Way labour, their addresses and how to contact them- The details to be kept with AEN/SSE (P.Way) & SE (P.Way).
- (ii) The details in respect of temporary labour- availability and how to get them- The details to be kept with AEN/SSE (P.Way) & SE (P. Way).
- (iii) The details in respect of contractors labour working in the division with the numbers at each side. The details to be available with each Sr. DEN/DEN/AEN for the whole division.

7.3.3 Mobility:

- (i) The Divisions have been authorized to hire trucks on regular basis for use of SSE (P.Way) & SSE (Bridges.) The contract agreement for hiring such trucks should have a provision for hiring additional number of trucks at short notice in the event of an emergency.
- (ii) Each SSE (P.Way) should have a plan for movement of labours and materials to the site of restoration with various alternatives like movement of the same by rail/road. For this, a complete road map should be prepared showing connections to the track through level xing or canal roads or the nearest points to track where the truck can reach.

7.3.4 Equipment and Miscellaneous.

- (i) The details in respect of heavy earth moving machinery available in the nearby areas, their contact persons, the telephone numbers etc. must be kept with AEN/DEN/Sr.DEN.
- (ii) Areas such as ghat sections may need use of explosives in the restoration process. The divisions having such areas will also keep the details in respect of availability of explosives in the nearby areas, the contact address and telephone numbers etc. readily available. Use of explosives also needs availability of duly authorized persons approved by the Govt authorities and therefore, the contact details of such authorized persons should also be kept handy.
- (iii) The details of availability of tents in the nearby areas, the contact numbers etc. Should be kept handy. This is in addition to the availability of the tents in the relief train as per prescribed scale.
- (iv) Suitable arrangements need to be made for supply of drinking water for the labour working at site. Therefore, the addresses and contact numbers of the agencies who could supply drinking water may be kept handy with AEN/SSE/ (Works) of the sub- division.
- (v) Needless to mention, that the small track machines like rail cutting, drilling welding equipments etc. are already forming part of the equipments of each relief train. In case, the same is not kept in the relief train, these equipments. Small track machines must be procured and kept in the relief train in adequate numbers.
- (vi) All SEE (P.Way) have an arrangement of portable Generators for lighting so that the dependence of Electrical Department even for small magnitude emergencies can be avoided. The Division may keep these in view while formulating the detailed Action Plan for their jurisdiction.

CHAPTER 8

DISASTER PREPAREDNESS-AVAILABILITY OF RESOURCES

- Railways are generally self-reliant in carrying out rescue and relief operations as a result of having a well organized set up including ARMEs and ARTs. However, major accidents involving heavy casualties in remote areas or in difficult terrain or under adverse weather conditions are possible to be managed efficiently only by mobilizing non-railway resources.
- Disaster Management mechanism in Railways can be maintained at a high level of preparedness and efficiency by keeping all resources readily available and in good fettle. Resources imply both railway and non-railway men and material including medical, personnel, transport, volunteers, police and fire services.
- Details of these resources, their location, contact numbers and other details have been identified, compiled and placed in a 'part-II of which is available in the divisional DM Plans of Ajmer, Bikaner, Jaipur and Jodhpur Divisions respectively. These are also being put on NWR's Web Site (www.wr.railnet.gov.in) for ready access. Few details are also included in Zonal DM Plan Part-II.
- Resources available in case of a major accident have may be grouped into 4 different units, depending on the time frame within which these can be made available after an accident.

8.0 Resources available

- (i) Resource Unit I-Railway and non-railway resources available on the train, and at nearby surroundings.
- (ii) Resource Unit II-Railway resources available at ARME/ART depots and elsewhere within the division. (Given in Chaptet-5)
- (iii) Resource Unit III-Railway resources available at ARME/ART depots and elsewhere on adjoining Zones and Divisions.
- (iv) Resource Unit IV-Non- Railway resources available within or outside the division.

8.1. Resource Unit - I:

- (i) **On trains carrying Passengers following resources are available:**
 - a) First Aid Box available with the Guard.
 - b) First Aid Box available with Train Superintendent and in the Pantry Car.
 - c) Portable Telephones,
 - d) Portable Telephones in Locomotives.
 - e) Fire Extinguishers in Brake Van, AC coaches & pantry cars.
 - f) Walkie-Talkie/ CUG mobile phones with Guard and Loco Pilot.
 - g) Cell Phones/Mobile communications with Passengers.
 - h) Information collected by Train Superintendent/Travelling Ticket Examiner about Medical Practitioners travelling on the train.
 - i) Information collected by TS/TTE about Railway Officers travelling on the train.
 - j) Railway Staff travelling on the train- either on duty or on leave as passengers.
 - k) Passengers travelling on the train who volunteer their help for rescue and relief work.
- (ii) **Non Railway resources available nearby:**
 - a) Volunteers from nearby villages and towns.
 - b) Transport facilities available at site or passing through nearby LC Gates.
 - c) Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.
 - d) Station staff and local railway administration should requisite help from non-railway sources before railways own rescue team arrives.

- e) Such local networks are most effective in rushing assistance immediately, especially with regard to:
 - medical succour,
 - additional manpower,
 - rescue equipment,
 - lighting arrangements,
 - transport services,
 - Firefighting tools etc.
- (iii) **Railway resources available nearby**
 - a) Engineering gangs.
 - b) OHE staff and signal staff available.
 - c) Other resources such as medical facilities, communication facilities.
- (iv) **At adjoining Stations:**
 - a) Staff available at adjoining or nearby stations.
 - b) Railway resources as given in respective Divisional DM Plans.
 - c) Non-railway resources as given in respective Divisional DM Plans.
 - d) Resources should be mobilized to send medical team at short notice as given in the respective Divisional DM Plans.
- 8.2. Resource Unit – II:**
 - (i) AMREs, ARTs with 140T crane are stabled at nominated stations. Their locations are given in Chapter-5 Para 5.2.
 - (ii) Railway medical and departmental resources.
- 8.3. Resource Unit –III:**
 - (i) Location of AMREs, ARTs with 140T crane based on adjoining Zones/Divisions are given in Chapter-5 para 5.2
 - (ii) Section wise chart of which ARMEs/ARTs are to be requisitioned from adjoining Zones/Divisions
 - (iii)Resources of men and material available on adjoining Zones/Divisions included in the Zonal Divisional DM Plans of respective Zones/Divisions.
 - (iv)Copies of DM Plans of adjoining divisions shall be available with the Divisional control office.
- 8.4. Resource Unit –IV**
 - (i) Non-railway resources available within the division-Included in the Zonal/Divisional DM Plan.
 - (ii) Non-railway resources available outside the division- Included in the Divisional DM Plans of adjoining Zones/Divisions.
- 8.5 Use of on board equipments**
 - 8.5.1 Portable Telephone:**
 - a) Portable Telephones are available in Brake van of Passenger carrying Trains.
 - b) Telephones presently in use are of the 4-wire/2-wire type of portable phones, which can be used in RE area as well as in overhead communication territory.
 - c) There are two types of Portable Telephones
 - (i) Land line type (Overhead Telephone line transmission)
 - (ii) Socket Type (Underground cable transmission)
 - d) In overhead territory additional poles are to be carried by Guards for connecting phones to the overhead lines.
- 8.5.2 How to use Portable Telephones:**
 - (i)Overhead type:

- a) Fix “Y” bracket on the poles.
- b) Use required number of poles available.
- c) Connect the two wires to phone terminals.
- d) Circuit on Red colour bracket side connects the section controller telephone line.
- e) Circuit on the Green colour bracket side connects the Deputy Chief Controller telephone line.
- f) Link “Y” bracket on the circuit and rub it for clear communication
- (ii) Underground cable type:
 - a) Look at Receiver Arrow sign for socket location on Over Head Equipment mast/location post and move towards the Arrow pointing direction.
 - b) On reaching EMC Socket location, open the socket by using the key kept in the phone box where required.
 - c) Plug in the phone terminal properly for communication.
 - d) In electrified section this phone connects the Traction Power Controller and then link to section controller. (In non-electrified section it goes directly to section controller).

8.5.3 Walkie-talkie Sets:

- (i) Ensure that the set is charged.
- (ii) Check that the proper channel is selected for communication.
- (iii) Do not intervene when the channel is engaged.

8.5.4 Use of BSNL/Cell Phone/Mobile Phones:

- (i) BSNL phone numbers with STD code for Railway Stations in a Division are given in WTT& WTT is available with Guard, Driver, and Assistant Guard.
- (ii) Refer WTT for nearest Station contact number.
- (iii) Phone Numbers of Important stations are also available in Working Time Table
- (v) CUG mobile Phones have been provided to Loco Pilots and Guards.

8.5.5 Emergency Train LightingBox- How to use ETL Box

- (i) This box is available in the Brake Van of Passenger carrying trains.
- (ii) Open the box by removing the seal.
- (iv) Fix the crocodile clip of hand Torch to the coach power supply terminal and use it for searching/surveying.
- (v) Fix the flood light to the Tripod Stand and connect its crocodile clip to the power supply terminal.

8.5.6 Resources to be hired during an accident

Medical	S&T	Engineering	Electrical	Commercial	Security
Ambulance	Mobile Phones and Satellite phones	JCB, Cranes, Truck, vehicles from contractor, earth moving equipments, Bulldozers, Tiplers etc.	Lighting equipments, Generators if required.	Buses, Hotels & Dharamshalas, gas stoves and gas cylinders and services of NGOs etc.	services of army, Air Force, BSF and CRPF etc.

Disaster Response-Golden Hour

9.1. Golden Hour Concept:

- In the period immediately after the accident where grievous injuries to passengers, loss of property etc. takes place, action has to be taken on war footing by Railway officers/officials on-board to render definite medical care which gives relief to affected persons and also helps them to overcome the trauma.
- 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.
- (vi) 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.

9.2. Disaster Syndrome:

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

9.3 Different phases of Disaster Response:

- Disaster Response in case of a railway accident constitutes of 3 phases. These 3 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 last 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 with the departure of most relatives and next of kin from the accident site and disposal of all bodies. Few of the grievously injured who continue to be hospitalized 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 coordinated efforts of different disciplines, all of whom function as a team. The three groups which are active during the above mentioned 3 phases of Disaster Response may be classified as follows:
 - (i) Instant Action Team (IAT)
 - (ii) First Responders (FR)
 - (iii) Disaster Management Team (DMT)

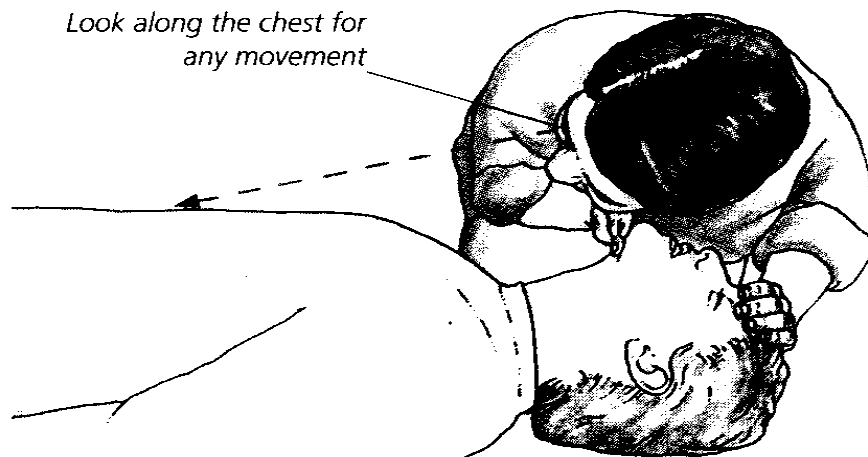
9.4. First Aid in Emergency:

9.4.1 Order of priority for dealing with and helping injured passengers should be as following stage:

- (i) Unconscious,
- (ii) Bleeding excessively,
- (iii) Having breathing problems,
- (iv) Grievously injured,
- (v) In a state of shock,
- (vi) Having fractures,
- (vii) Simple injured.

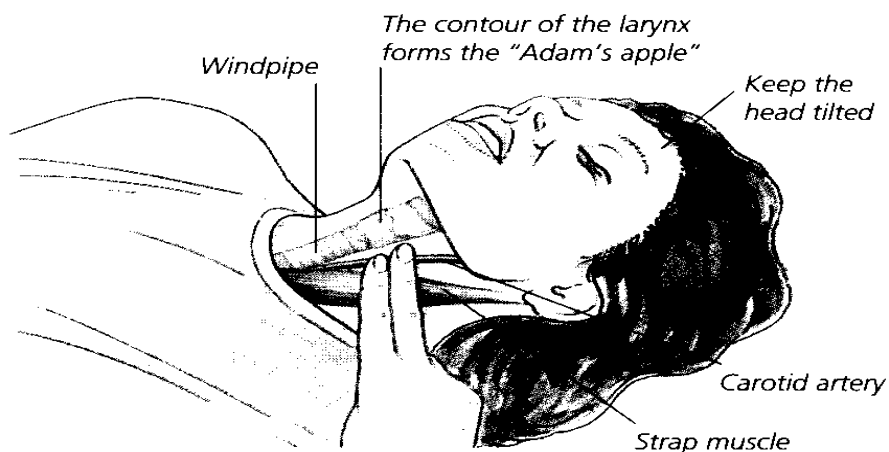
9.4.2 For assessing and handling injuries, acronym **DR ABC** is to be followed.

- (i) **D–DANGER:**
Look for danger. Make sure that no further danger exists either for the patient or for the First Aid.
- (ii) **R –RESPONSE:**
Check for consciousness. Call by his/her name, slap, pinch and shake gently. If there is no response, then it means that the patient is unconscious.
- (iii) **A – AIR WAY:**
Clear the airway (Trachea). If patient is unconscious, then the airway may be narrowed or blocked making breathing impossible. This occurs due to several reasons. Mass food particles or foreign body in the air passage; or the tongue may have sagged back and blocked the air passage.
To open the airway lift the chin forward with the fingers of one hand while pressing the forehead backwards with the other hand, now the tongue comes forward and the airway is cleared. To clear the other objects in the mouth, press the Jaw, open the mouth put your fingers or a clean cloth in the mouth and clears the things. Now the air passage is clear.
- (iv) **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.



(v) **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).



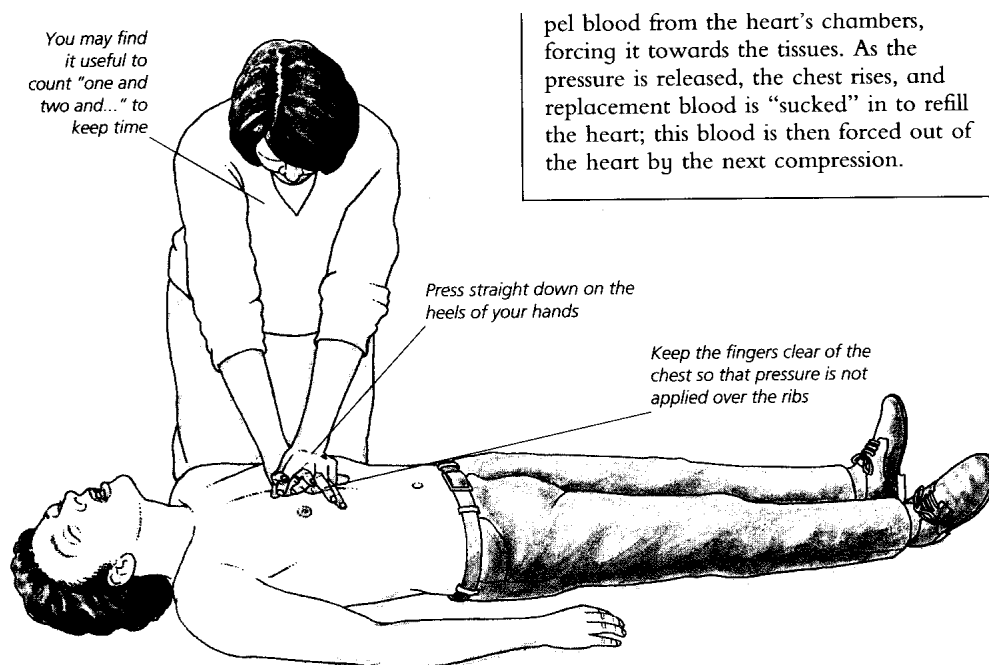
After checking DR ABC, there may be two possibilities.

- a. If patient is breathing, has circulation but is unconsciousness, immediately turn him to Recovery position and transport to hospital.
- b) 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 open the mouth with one hand and close the nose with other hand keep your mouth on the casualty's mouth and blow.



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



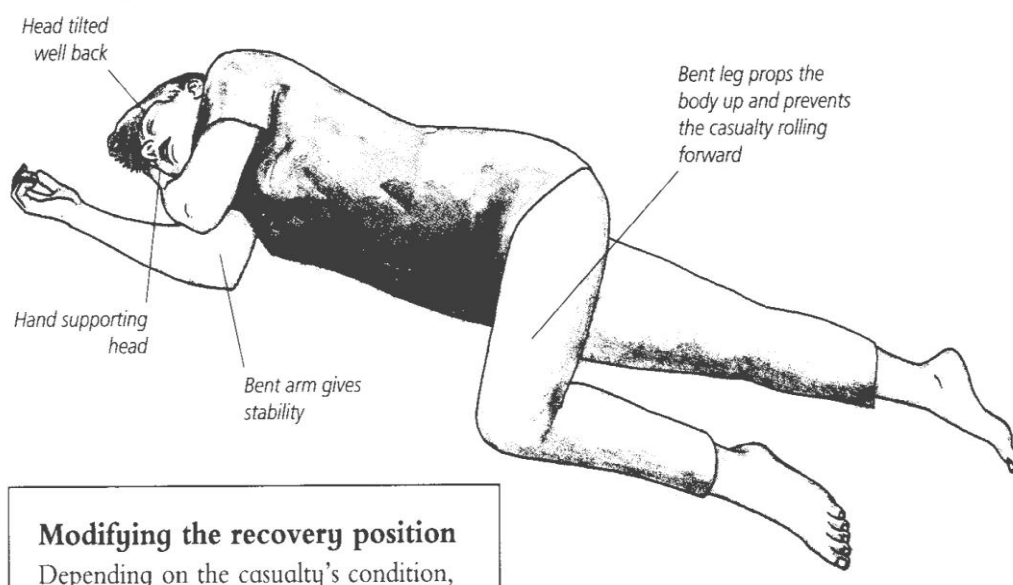
Mouth to mouth ventilation and external chest compression should be given in the ratio of 2:15. This should be continued up to the revival of life or till reaching the hospital. Once life starts, immediately turn the casualty into recovery position and transport to hospital. (Recovery position or three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

Recovery position:

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



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



Triage: Triage is an evaluation or an assessment process of the medical condition of victims and their categorization depending on the severity of sustained injuries. Triage is a complex process and includes – sorting and categorization of victims, and initiating life saving measures and treatment at the Site, During transportation and in the hospital

Red – a) First priority, b) Victim critical with unstable vital functions, c) Requires urgent care **Yellow** – a) Second priority, b) Victim serious but stable vital functions. c) Requires prompt care though no immediate risk, but cannot move without assistance.

Green – Victims having light injury and able to walk.

Black – Dead.

Medical First Responder (MFR)-

Railway is not treated as MFR in case of a disaster. NDRF with trained personal of State & district authority is treated as MFR.

CHAPTER 10

DISASTER RESPONSE-INSTANT ACTION TEAM (IAT)

10.1. Instant Action Team comprises of:

- (i) The Guard, Crew, TS, TTEs, AC coach attendant, Asstt. Guard, RPF and other railway staff on duty on the accident involved train.
- (ii) GRP staff traveling on the train on duty.
- (iii) Railway staff traveling by the accident involved train either on duty or on leave as passengers.
- (iv) Doctors traveling by the train.
- (v) Passengers traveling on the train who volunteer for rescue and relief work.
- (vi) Railway staff working at site or available nears the site of the accident.
- (vii) Non- Railway personnel available at or near the accident site.

10.2. Pre- accident check list of preparation for Members of Instant Action Team.

- (i) Generally, about 15” time elapses before information regarding occurrence of an accident reaches the Divisional control Office. In case information can be conveyed immediately this time can be saved. This 15” time is of vital importance since it constitutes 25% of the ‘Golden Hour’.
- (ii) In case they have a Mobile, ensure that telephone numbers of all relevant officials such as those of divisional control offices etc. have been permanently fed into the Mobile for immediate use in an emergency.
- (iii) These important telephone numbers should cover all those sections where they are required to work their train either within their own division or even those of adjoining divisions.
- (iv) Divisions will get printed and circulate a DM Telephone Directory containing all such telephone numbers that are likely to be required in an emergency.
- (v) Whenever they are traveling at night, they should keep a torch handy and secure it by some means. The torch will be of no use in an emergency if it cannot be taken out from inside the suitcase at that point of time; or if the torch cannot be located since it has fallen off due to severe jerk.

10.3. Duties of Quick Resque Team-Guard, LP,ALP,TTEs, RPF/GRP,AC mechanic, Coach Attendant and on-board staff:

Details duty list of guard, LP/ALP and Ticket checking staff given Accident Manual of NW Railway. Some of important ones are given below-

10.3.1 Duties of the Guard of the affected Train-

- (i) Note the exact time of the accident and kilometer.
 - a) Protect the adjacent line(s)and the train as per GR. and SRs thereto;
 - b) Secure the vehicles as per rules.
- (ii) Ascertain if adjacent line (s)is/ are fouled.
- (iii) Make a quick survey, for an immediate action, of the causalities, injuries and assistance required;
- (iv) Relay the information giving details of the accident and assistance required to the control by the most expeditious means.
- (v) Render first aid to the injured person(s) taking assistance of all available Railway Staff, Doctors and volunteers on train or near the site of accident;
- (vi) Illuminate the affected area as much as possible with EL Box fittings (if accident occurred as night time).
- (vii) Get the particulars of damage to the rolling stock, permanent way etc.

- (viii) Arrange to shift the injured persons to the nearest hospital with the help of all available staff and other volunteers, also keep their particulars;
- (ix) See that water, tea etc., are supplied to the affected passengers as far as practicable;
- (x) Arrange protection of Railway and public property with the help of available police and Railway staff.
- (xi) Preserve all clues relating to the possible cause of accident;
- (xii) Post an available Railway employee on the field telephone to ensure regular- flow of information;
- (xiii) Check the unaffected portion of the train and arrange to clear the same safely to the adjacent station(s) as per rules and in consultation with the control/station Master(s) concerned.
- (ixv) Remain in overall charge till replaced by a senior Railway official and permitted by the Competent Authority. In mid-section Senior most TTE and at station limit SS is over all in-charge of the site.

Note: In the event of any disability of the Loco pilot the duties devolving on the Loco pilot, for protection of the line/ line(s) shall devolve on the Guard or on a Railway servant deputed by him.

10.3.2 Duties of Loco Pilot of the affected train.

- (i) Note the time of the accident, and kilometre
- (ii) Protect the adjacent line (s) at the front end of the train as per GR 6.03; 9.10 and SRs thereof, as the case may be.
- (iii) Inform Station Master, Guard of the train on Walkie-Talkie or CUG phone.
- (iv) Inform control office.
- (v) Take necessary action to prevent rolling down of Loco/rolling stock.
- (vi) Take such precautions as may be necessary or as prescribed by special instructions to render his locomotive safe.
- (vii) Render all possible assistance to the Guard in rescue and relief measures.

Note: In the event of any disability of the Guard, it will be the responsibility of the Loco Pilot to ensure protection of obstructed adjacent line(s) and the train in the rear as per GR 6.03 and SRs thereto and to give quick information to the Control/ Station Master.

10.3.3 Duties of Assistant Loco Pilot of the affected train.

- (i) Assist the Guard/ Loco Pilot in conveying accident messages to all concerned.
- (ii) Help the Loco Pilot in protection of the site of accident.
- (iii) Render all possible assistance to the Guard in rescue and relief measures.
- (iv) Carry out any other job assigned relating to accident by the Loco Pilot of the train.
- (v) Man the engine in absence of the Loco Pilot.
- (vi) To provide first to injured.
- (vii) Use FEs, if necessary, from Loco, AC Coaches or brake van.
- (viii) If LP is injured or dead, he will perform duties of LP as given in para 8.3.2.

10.3.4 Duties of the Train conductor/ Train superintendent and Traveling Ticket Examiner (TTEs) (as per para 131 of accident manual of NWR)

- (i) Assist the Guard in rendering first aid to the injured persons(s) and shifting them to the Hospital.
- (ii) Look after the comfort of the passengers, injured and un-injured alike.
- (iii) Assist the passengers for protection of their luggage.
- (iv) Make out a list of injured/ dead passengers.

- (v) Preserve reservation charts to know the particulars of injured/ dead passengers.
- (vi) Organize to tranship/ transfer passengers and their luggage to the passenger special.
- (vii) Assist for arranging snacks, tea, coffee & drinking water to the injured and other passengers detained at the site of accident.
- (viii) Collect the addresses of the relatives of the injured/dead passengers to send information regarding accident.
- (ix) Look for the assistance of any Doctor or para Medical staff (Railway. Non – Railway) travelling in the train.
- (x) The TTE should work under the guidance of the train Conductor/ Train Superintendent

10.3.5 Duties of the A.C. Mechanic/ Coach Attendant.

- (i) He should immediately “Switch Off” the current where necessary to avoid short circuiting.
- (ii) He should also assist Commercial staff i.e. Train conductor/ Train Superintendent/ TTEs in their duties at the accident site.
- (iii) See that the emergency lights inside the Coaches are in working order.
- (iv) Assist in providing lighting in affected area.
- (v) In case of fire assist the operation by using Fire extinguisher provided in AC coaches.
- (vi) Provide linen/blanket of AC coaches to injured persons. Record of same be kept.

10.3.6 RPF official.

- (i) Segregate the area of incidence by establishing temporary barriers by use of nylon ropes (if available) or any other make shift device available at the site to protect the area against the entry of spectators into the affected place.
- (ii) Preserve all clues and evidences regarding probable cause of the accidents and ensured that these do not get disturbed.
- (iii) Luggage’s of passengers should be isolated and protected and consigned goods are taken care of till they are handed over to claimants or taken over by the Railway.
- (iv) Render First Aid to injured.
- (v) Try and rescue as many passengers as possible from the accident involved coaches.
- (vi) He should respond to any call for assistance to rescue victims and transport them to nearest Hospital.
- (vii) He shall maintain close liaison with the Officers of various departments of the Railways, GRP, Local Police and Officers of Civil Administration.

10.4. Railway Staff traveling on the accident affected train:

- (i) Whenever a train is involved in a serious accident with casualties/injuries to passengers, all railway staff traveling on the train either on duty or on leave are deemed to be on duty with immediate effect.
- (ii) Under no circumstance should any of them leave the accident site unless and until divisional officers arrive, take over charge of rescue and relief operations, and permit them to leave.
- (iii) Railway staff on train/at site shall volunteer themselves to render assistance and report to TS/TTE/Guard of the Train.
- (iv) The senior most officers traveling on the train will assume charge as Officer-in-Charge Site (OC Site).

- (v) Normally the senior most officers will be traveling in either the 1AC or in 2AC coach; and most probably in the HOR quota section of the coach. The HOR section of 2AC is invariably in the center of the coach (berth nos. 19 – 22). In any case the TS/TTE would know who are the railway officers traveling in 1AC or 2AC.
- (vi) Similarly, other railway staff will be traveling in 3AC coach; and most probably in the HOR quota section of the coach. The HOR section of 3AC is also in the center of the coach (berth nos. 25 – 30).
- (vii) Similarly, some Group 'D' railway staff may be traveling in Sleeper coach; and probably in the HOR quota section of the coach. The HOR section of a Sleeper coach is located in the center of the coach (berth nos. 33 – 40).
- (viii) In the absence of any officer, the TS or senior most TTE/Guard will discharge duties listed out for OC Site.

10.5. Duties of OC Site – Immediately after the accident:

- (i) Note down the time of accident.
- (ii) Ensure protection of traffic by Guard and Driver.
- (iii) Ensure reporting of accident to nearest Station/Control.
- (iv) Roughly assess the extent of damage and likely number of casualties.
- (v) Collect railway staff and volunteers from amongst the passengers and form different groups. Each of these groups should be assigned work as detailed at item 8.7 below.
- (vi) Maintain a log of events.
- (vii) Till Divisional Officers arrive and take over charge of the situation, continue to discharge duties of OC Site.
- (viii) After Divisional Officers arrive, fully brief the DRM hand over charge to him.
- (ix) The on-board OC Site should ensure issue of a detailed message with following information before leaving the site of the accident.
 - a) Time/Date of accident.
 - b) Location Km./between stations.
 - c) Train number and description.
 - d) Nature of accident.
 - e) Approximate number of killed/injured.
 - f) Extent of damage.
 - g) Assistance required.
 - h) Condition of the adjacent line, if any.
 - i) Whether OHE is involved.
- (x) From where onwards, the DRM of the accident involved division takes over charge as OC Site.

10.6. Formation of Groups comprising members of Instant Action Team:

- (i) OC Site shall immediately collect all Railway staff on train/at site and form separate groups.
- (ii) Passengers traveling by the same train who volunteer for rescue and relief work should also be drafted into these groups.
- (iii) Passengers from accident involved coaches should be directed towards their own coach.
- (iv) Passengers from coaches which are not affected can be distributed amongst other accident involved coaches.
- (v) In the absence of OC site, TS/TTE shall take steps to form such groups.
- (vi) In the absence of TS/TTE the Guard/Assistant Guard shall take steps to form such groups.
- (vii) 5 or 6 groups should be formed depending on number of coaches involved.

- (viii) Ideally, one group should be formed for handling each coach.
- (ix) In case sufficient numbers of officers are present, then one officer should be made in-charge of each group.
- (x) Otherwise, Sr. Supervisors traveling by the accident involved train should be nominated as in-charge of each group to co-ordinate its working.
- (xi) In case sufficient numbers of Sr. Supervisors are also not present, one TTE should be nominated as in-charge of each group to co-ordinate its working.
- (xii) Each group should rescue injured, entrapped passengers.

10.7 Duties of Railway Officials present/on board at site (As per para 130 of Accident manual):

10.7.1 The chain of command at accident site, till any Railway Official/ARMV/ART reaches at accident site will be as under-

- (i) **If the accident occurs in station limit:-** Station Superintendent/Station Master.
- (ii) **If accident occurred at mid-section:-**
 - a. Train Superintendent of the train
 - b) Senior most Train conductor or TTE
 - c) Guard of Train
 - d) Loco Pilot of the train
 - e) Assistant Loco Pilot
- (iii) If the key official is injured, the next in line can assume the command of train.
- (iv) Sr. Most official reaching at site by ART/ARMV will submit a report regarding specific activities taken up by official present/on board staff.

10.7.2 Till such time Sr. Railway Official reaches and relief and assistance arrives, the senior most railway official present/on board shall take charge of the situation. He shall ensure that the accident has been reported properly to the Controller and the nearest Station Master and relief, if required, is asked for and arrange to-

- i) collect railwaymen and volunteers;
- ii) Allot duties to each as best as possible under the prevailing circumstances'
- iii) Allot duties to Police, Military and the Railway security staff; and
- iv) Organize relief with the assistance of volunteers.
- v) The on-board staff should be provided intensive training and suitable equipment for providing relief & rescue during the Golden Hour. The Railway staff should be given full training to work as Medical First Responders and contractors' staff should be given general training in Rescue.

10.7.3 The officer reaching the site in ART should submit a formal report of the activities undertaken by present/on-board staff and the erring staff should be given exemplary punishment.

10.8. Duties of on-board railway staff immediately after the accident:

- (i) Don't panic. Once the accident has already occurred and the train has come to a standstill nothing worse can happen.
- (ii) In case you have a Mobile and it is working, inform the divisional control office immediately about the accident.
- (iii) Observe the position in which your coach has stopped; whether it is standing upright or turned upside down or lying on its side.
- (iv) Try and see whether your coach has stopped on a bridge or whether there is level ground on both sides.

- (v) In case the coach is on a bridge or very high embankment or in case it is raining heavily, then it is better to wait for some time and not be in a hurry to leave the coach. You may be jumping from the frying pan into the fire.
- (vi) Search your coach with your torch and try to determine the general position.
- (vii) See that passengers don't panic either. Passengers sometimes make things worse for themselves by panicking at this critical moment. Try to calm them and build up their confidence.
- (viii) Ascertain whether passengers are injured or not; and whether any of them are trapped or pinned down inside the debris.
- (ix) Call out aloud and find out whether there are any doctors present.
- (x) Doctors who are traveling in the coach should be asked to announce their presence so that they can attend to and help injured passengers.
- (xi) Call out aloud and find out whether there are any railway staff present.
- (xii) Railway staff who were traveling in the coach should be asked to announce their presence so that they can attend to and help other passengers.
- (xiii) For each coach, form a core team comprising of railway staff available, doctors and 3 or 4 uninjured passengers from the same coach. This core team should take the lead in helping remaining passengers both injured and uninjured.

10.9. Duties of members of Instant Action Team – Till arrival of Divisional Officers

- (i) If a person is bleeding and losing blood, or if he is unconscious, then in that case you have to act quickly. 'Golden Hour' should be kept in mind. You may have at the most only one hour's time on hand.
- (ii) In such cases, immediately administer First Aid to the injured passenger and try and stop further loss of blood.
- (iii) Persons trained in first aid may do 'Cardio Pulmonary Resuscitation'. This may save several lives.
- (iv) If the door is open and is accessible, then uninjured passengers should be helped to come out from the door.
- (v) In AC coaches the window panes should be broken open in order to let in fresh air for the occupants, and thereafter to evacuate them.
- (vi) Non – AC coaches have one emergency exit window on each side. The position of this emergency window is 5th from the left when facing the line of windows from inside the coach. They are opposite berth nos. 23 and 57. In case the door is locked and jammed, try and open these windows so that some of the uninjured passengers can come out through the emergency exit.
- (vii) Special care should be taken while evacuating the old, infirm and children in order to ensure that they are not separated from their family members.
- (viii) Extrication of critically injured should be done under medical supervision as far as possible.
- (ix) In case medical supervision is not available, then critically injured passengers should be made to lie down on a bed sheet and thereafter taken out by 4 persons holding the four corners. This will ensure that no further damage takes place. (Bed sheets will be available in AC coaches).
- (x) Passengers who are bleeding from open cuts should be tied up with strips of cloth so as to reduce if not stop the bleeding altogether.
- (xi) It is better not to take out the luggage from inside the coaches at the first instance, for two reasons. Firstly, passengers both injured and uninjured should get preference in this evacuation process. Secondly, it may be safer for the luggage to be left inside where there are less chances of their being stolen or pilfered.

- (xii) After passengers have been evacuated from your coach, cross check with the reservation chart and against the name of each passenger note down as to whether he/she is injured or not.
- (xiii) After all passengers have been evacuated; water and eatables can be taken out gradually.
- (xiv) Building up confidence of injured passengers by suitable advice is of great importance.
- (xv) After helping evacuate all passengers from your coach go over to the unreserved coaches and provide similar help to those passengers also.
- (xvi) Railway officials from divisional headquarters generally arrive at the site of the accident within 2 to 3 hours, depending on the distance of the accident site from the divisional hqtrs. Wait for them to come and make further arrangements.
- (xvii) Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalization. In case some local people have arrived by that time, their help should be taken in shifting the grievously injured to the nearest hospital.
- (xviii) In case your train has been involved in an accident but neither has your coach derailed nor are any passengers of your coach injured, then you should go to the unreserved coaches and carry out the duties as listed above.

10.10. Duties of the Instant Action Team – In case of a fire:

- (i) In case of fire pull the Alarm Chain and stop the train immediately.
- (ii) Try and put out the fire before it becomes a big blaze by using either water or blankets etc.
- (iii) More people expire due to suffocation from smoke rather than due to actual burning.
- (iv) Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils.
- (v) Instruct passengers to go to the other end of the coach which is away from the fire and if possible cross over to the next coach through the vestibule.
- (vi) Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
- (vii) Make sure that no passenger lies down on the floor.
- (viii) After train has stopped, passengers should come down from the coach immediately.
- (ix) Building up confidence of injured passengers by suitable advice is of great importance. Details guidelines has been issued by CAMTECH on the subject.

10.11. Duties of OC Site - till arrival of divisional officers:

Having formed different groups consisting of available railway staff on the train and volunteers from amongst passengers, the rescue and relief work should be got started in right earnest. This entire exercise would take about 30” time. Once the rescue and relief work by the **Instant Action Team** has got underway, the OC site should then devote his attention to contacting **First Responders**.

10.11.1. Locating nearby villages:

- (i) There would be some villages nearby, either visible or out of sight.
- (ii) In most cases, villagers turn up on their own having heard the sound of the disaster.
- (iii) Otherwise, try and see if any light or any other signs from the village are visible.
- (iv) In case none of the above is possible, then speak to either the control office or the nearest station and find out the location of nearby villages as also their general direction.
- (v) Location of nearby villages as also their general direction will be available in the Divisional DM Plans.

- (vi) Having ascertained the general location of nearby villages, send messengers(preferably railway staff) to inform villagers and seek their assistance.

10.11.2. Locating the nearest manned level crossing gate:

- (i) The train driver is the best and fastest source of information regarding location of the nearest manned level crossing gate in either direction.
- (ii) Send a messenger (preferably a railway staff) to the gate for contacting the gateman.
- (iii) In most cases, the gateman will be able to give location of nearby villages.
- (iv) The messenger should then try and stop a passing vehicle and go to the nearby village, inform villagers and seek their assistance.

10.11.3 Organizing assistance from local people available in nearby villages

- (i) Villagers should be asked to make an announcement from their loud speaker (generally available in the local temple, mosque, gurudwara, church etc.) informing others regarding the accident.
- (ii) Everybody should be asked to rush to the accident site with following:
 - a) Tractor trolleys (both for transportation as also for generallighting,
 - b) As many cutting implements, hammers, chistles etc. as are available,
 - c) Ropes,
 - d) Ladders,
- (iii) If doctors or para-medical staffs are available in the village they should also be sent to the accident site.
- (iv) The messenger should stay back and try and organize opening of a big building (preferably a school) for sheltering of injured passengers and/or preservation of dead bodies.

CHAPTER 11

DISASTER RESPONSE – FIRST RESPONDERS

11.1 Role of First Responders–Local people

11.1.1 At accident site:

- (i) Tractors, which arrive, should be lined up in a row facing the track with their headlights switched ON for illuminating the accident site.
- (ii) Tractors should be so spaced out that they illuminate the entire length of the accident site. Such spacing would also depend on number of tractors that have arrived.
- (iii) Rescue and relief work should now be mounted under the available light.
- (iv) Villagers arriving for rescue and relief work should be formed into separate groups for handling individual coaches.
- (v) Group leaders of IAT who were earlier conducting rescue and relief work should co-ordinate with the local people and guide them.
- (vi) Grievously injured passengers extricated from coaches should be sent to the nearest hospitals in tractor trolleys.
- (vii) Passengers who have suffered trivial injuries and uninjured passengers should stay back at accident site and wait for arrival of railways DM team who would take charge of them.
- (viii) As a thumb rule, any injury requiring hospitalization of more than 48 hrs. is grievous, hospitalization of less than 48 hrs. is simple, and any injury not requiring hospitalization at all is trivial.
- (ix) The following priority should be adhered to while sending such grievously injured passengers:
 - a) Unconscious,
 - b) Bleeding excessively,
 - c) Having breathing problems,
 - d) Grievously injured,
 - e) In a state of shock,
 - f) Having fractures,
 - g) Simple injury,
- (x) Dead bodies, if extricated should be kept alongside the coach but away from the track for proper tagging etc. before being dispatched for preservation.
- (xi) Bodies should be kept in separate lots, coach wise, so that they do not get mixed up.
- (xii) Tagging of dead bodies should indicate the coach number and also the cabin number, if possible, (For example NWR 98127, cabin number containing berths 9-16).

11.1.2. In villages/towns:

- (i) A big building, preferably a school building should be got vacated and made ready for keeping of dead bodies and unclaimed luggage of passengers.
- (ii) They should be asked to bring the following to the accident site for train passengers:
 - a) Tea and refreshments,
 - b) Warm clothing, if required.
- (iii) Look after injured passengers who have been taken to the village.

- (iv) Take injured passengers to the nearest hospital by means of any transport available. For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.

11.2 Duties of First Responders – Railway Staff:

11.2.1. Gang Staff:

- (i) On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- (ii) Ensure that track alignments or lines are not disturbed.
- (iii) Report to OC Site and assist in rescue and relief work.
- (iv) Assist in extricating injured passengers from coaches.
- (v) Assist in transporting them to nearest hospitals.

11.2.2. Gate man:

- (i) Keep gate closed if the train has not cleared the gate.
- (ii) He shall arrange to inform SM immediately under exchange of private number regarding the nature of the accident.
- (iii) Collect men and material available nearby and direct them to site.
- (iv) In case the gate is involved in an accident, which obstructs and fouls the track and the gate is provided with the gate signals, then the signals shall be put to 'ON' position immediately.
- (v) If the Boom / Wing is broken he shall close the gate with Safety Chain. Keep gates closed if the train has not cleared the gate.
- (vi) He shall immediately fix Red Banner Flag in Daytime and Red Lamp in Night time on wooden staff at both ends of the gate 5 meters away from the obstruction on either side.
- (vii) On Double / Multiple line section he shall stop any train approaching the accident area by showing Danger Hand Signals.
- (viii) He shall rush with Detonators, Fuses and Red Flag by Day and Red Hand Signal by night in the direction of the approaching train and place one detonator at a distance of 400 Mts. on MG & 600 Mts. on BG line. Thereafter he shall proceed to a distance of 800 Mts. on MG & 1200 Mts. on BG section and place three detonators on the track 10 Mts. apart. After that he shall return to the level crossing gate picking up the intermediate detonator on his way back. Thereafter he shall proceed towards the other direction and place the detonators similarly.
- (ix) On returning to the gate he shall not meddle with the clues and evidences of accident & also not tamper with the interlock system.
- (x) Avail services of road vehicles waiting or passing through LC Gate.
- (xi) Send message to nearby village, informing them regarding the accident.
- (xii) On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- (xiii) Parting of Trains: If a gateman notices that a train has parted, he shall not show a stop hand signal to the pilot, but shall endeavor to attract the attention of the pilot and guard by shouting gesticulating and displaying a Green Flag by Day and white light by night in Up & Down Vertically as High & Low as possible.
- (xiv) Gateman shall not leave his gate unless other gateman has taken charge of it. If it is necessary to leave his gate in an emergency, before doing so, he should close and lock the gates against the public road and must inform and get permission to do so.

11.2.3. Cabin man

- (i) In case of an accident first he shall put back the related signals to ' ON' position immediately and put stop collars on the relevant points.
- (ii) He shall reverse the points against the train involved in the accident.
- (iii) He shall not tamper with the interlocking system.
- (iv) He shall preserve clues and evidences.
- (v) He shall keep readily available all the cabin records and do not tamper the entries made in Train passing records.
- (vi) He shall be in close contact with SM/ ASM on duty and strictly obey the orders / instructions.
- (vii) He shall not leave the cabin without his reliever and without the permission of the competent authority.

11.2.4. Pointsman

- (i) In case of an accident he shall be in close contact to follow the instructions of in charge SS or on duty SMs / ASMs.
- (ii) He shall help / assist the passengers in every rescue & relief operation.
- (iii) He shall report promptly / Quickly if any defects are noticed in points, track, S&T gear, rolling stocks involved in the accident which may endanger safety.
- (iv) He shall pilot the first train while dispatching on accident as per the instructions given by on duty SS / SM / ASM.
- (v) He shall report the position of the adjacent line whether it is fouled or not and also ensure clearance of fouling mark or not.
- (vi) If the train involved in an accident caught fire, he shall first ring the bell continuously to inform 'ON' & 'OFF' duty staff and then use Fire Extinguishers, water buckets, sand buckets provided at the station to extinguish the fire.

11.2.5 Station Superintendent In-charge:

- (i) He shall quickly& promptly convey all type of information to adjoining stations and section control.
- (ii) He shall arrange protection of traffic by keeping relative signals at 'ON' position and also arrange to preserve the clues/evidences of accident.
- (iii) He shall call for the 'On' duty & 'OFF' duty staff at the site of all departments including RPF & GRP staff.
- (iv) Communication with civil authorities, Village, Town, Cities, NGO Representatives/Volunteers for possible relief assistance.
- (v) Call for assistances for medical aspects from civil/private doctors and Army medical hospitals. Mobilise local medical team and injured passengers to hospitals. Quickly transport of ARME Scale II equipments.
- (vi) Passenger assistance: Arrange drinking water beverages and refreshment free of cost either from refreshment room and local resources. Open emergency counter and display necessary information regarding dead/injured passengers and convey it. Make frequent announcement about diversion, cancellation and regulation of train services and arrange for refund of fares as per extent rules.
- (vii) Transport assistance: Arrange transporting injured passengers to nearest hospitals apart from tractors, trolleys, Trucks, Buses passing on the Highways/nearby can be utilised or by hiring road vehicles.
- (viii) Security assistance: Arrange RPF/GRP/State police to provide security to passengers their belongings and Rly. properties. They should also be asked to assist in rescue and relief work.

- (ix) Communication Assistance: Direct passengers to PCO booths available nearby and issue free telegram and make available STD phone to relatives of dead/injured.
- (x) Sending manpower: Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- (xi) Preservation of clues and evidences: Secure records related to accident in the Station/Cabin. Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.
- (xii) Protection: Protect adjacent lines then protect the same line on either side. Note the position of points etc., and clamp the points against the line on which the train is affected. Put "Line Blocked " lever collar in cabin / SM's slide control from where the lever is operated.
- (xiii) He shall not relive the site of accident till the Traffic Inspector or Divisional Officers relieves him.

11.2.6. Station Master / Assistant Station Master:

- (i) He shall quickly & promptly convey all type of information to adjoining stations and section control.
- (i) He shall arrange protection of traffic by keeping relative signals at 'ON' position and also arrange to preserve the clues/evidences of accident.
- (ii) He shall prepare the relevant Authority to send the first train on occupied section and nominate one Pointsman to pilot the train / vehicle.
- (iii) He shall call for the 'On' duty & 'OFF' duty staff at the site of all departments including RPF & GRP staff.
- (iv) Communication with civil authorities, Village, Town, Cities, NGO Representatives/Volunteers for possible relief assistance.
- (v) Call for assistances for medical aspects from civil/private doctors and Army medical hospitals. Mobilize local medical team and injured passengers to hospitals. Quickly transport of ARME Scale II equipments.
- (vi) Passenger assistance: Arrange drinking water beverages and refreshment free of cost either from refreshment room and local resources. Open emergency counter and display necessary information regarding dead/injured passengers and convey it. Make frequent announcement about diversion, cancellation and regulation of train services and arrange for refund of fares as per extent rules.
- (vii) Transport assistance: Arrange transporting injured passengers to nearest hospitals apart from tractors, trolleys, Trucks, Buses passing on the Highways/nearby can be utilized or by hiring road vehicles.
- (viii) Security assistance: Arrange RPF/GRP/State police to provide security to passengers their belongings and RLY. Properties. They should also be asked to assist in rescue and relief work.
- (ix) Communication Assistance: Direct passengers to PCO booths available nearby and issue free telegram and make available STD phone to relatives of dead/injured.
- (x) Sending manpower: Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- (xii) Preservation of clues and evidences: Secure records related to accident in the Station/Cabin. Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.

- (xiii) Protection: Protect adjacent lines then protect the same line on either side. Note the position of points etc., and clamp the points against the line on which the train is affected. Put "Line Blocked" lever collar in cabin / SM's slide control from where the lever is operated.
- (xiv) He shall not relieve the site of accident till the Traffic Inspector or Divisional Officers relieves him.
- (xv) He shall obey the orders given by higher authorities from time to time.
- (xvi) He shall work during accident as per the instructions laid down in G&SR Accident Manual and SWR.

11.2.7. Safaiwalla:

- (i) He shall follow the instructions of the Team leader of the Rescue operations.
- (ii) He shall preserve Dead bodies under the instructions of the team leader & Doctors.
- (iii) He shall do all sanitation work at the site.

11.2.8. Station Master at adjoining station:

(i) Conveying of information:

- a) Arrange protection of traffic by keeping all signals at ON position.
- b) Report the accident to Station Master at the other end. He should be asked to call all off duty staff at his station and send them to the accident site.
- c) Report the accident to Section Controller.
- d) Control to be advised regarding accident, damage to Rolling stock, Track, causality etc.
- e) Following functionaries should be advised regarding the accident:
 - All off duty railway staff posted at that station.
 - SS of Junction stations at either end.
 - TI, CMI
 - P.Way Supervisors – SSE/JE etc.
 - TRD Supervisors – SSE/JE etc.
 - C&W Supervisors – SSE/JE etc.
 - S&T Supervisors – SSE/JE etc.
 - SI/RPF, SHO/GRP.
 - Nearest Fire Station.
- f) Inform civil authorities, village/town/city representatives and volunteers for possible relief assistance.
- g) Supervisory Station Manager of the nearest Jn. station shall proceed to accident site.
- (ii) **Medical assistance:** call local doctors, Civil and Army hospitals, arrange First Aid boxes,
- (iii) Passenger assistance:
- (iv) Transport assistance:
- (v) Security assistance:
- (vi) Communication Assistance:
- (vii) Sending manpower for site:
- (viii) Preservation of clues and evidences:

11.2.9. Duties of TI/PWI/SI/CWI/LI:

- (i) Rushing to accident site with men and material:
 - (ii) Rescue and relief:
 - (iii) Joint measurements and preservation of clues and evidences

Disaster Response-Relief, Rescue and Restoration Operation

12.1. Duties of Official- in charge at the site

The senior most official present at the site of the accident shall be in overall charge of the relief operation till he is relieved by another official deputed by the Administration to take over the charge. However, the senior most official of the Mechanical Department shall be in charge of the relief train. The senior most official present at the site of a serious accident, shall-

- (i) Take general charge of the situation and take action to provide all possible assistance;
- (ii) Depute Officers/ senior subordinates and all other staff on specific duties in-
 - a) Assisting the rescue operation, if any;
 - b) Assisting the preservation of clues;
 - c) Assisting the transshipment work, if any;
 - d) Taking action to remove the obstruction as soon as possible;
 - e) Ensuring the protection of adjacent lines and the affected train as per rules.
- (iii) See that the portable telephone is installed and manned constantly by a responsible staff, and ensure adequate lighting of the accident area at night;
- (iv) See that the injured persons if any are rendered first aid and shifted promptly for medical aid;
- (v) Ensure to get clearance from Police authorities in case of suspected sabotage;
- (vi) Make an immediate assessment of the following, with the help of the available doctors and / or others;
 - a) The number of persons killed, and of those sustaining grievous, simple and trivial injury;
 - b) Extent of damage;
 - c) The expected period of suspension of traffic.
 - d) Assistance required;
 - e) Prima facie cause of accident;
- (vii) See that dealing centre is opened at the site of accident and manned-
 - a) To keep the details of persons killed, injured, and action taken in each case;
 - b) To relay the above information in details to the Divisional Headquarters'
 - c) To attend to public enquiries and
 - d) To relay the progress of relief work;
- (viii) Ensure recording of all information at the dealing centre concerning the accident and the relief operations in the form of an Accident Log Book;
- (ix) See that immediate action is taken to protect and safeguard property;
- (x) See that proper assistance is given to the injured, ladies children and the aged;
- (ix) Arrange for transporting the stranded passengers preferably to stations where drinking water, catering arrangements etc. are available, unless they can be sent to their destinations;
- (xii) See that the arrangement is made for preservation and proper care of dead bodies, if any, till further disposal'
- (xii) See that obstruction is cleared in the minimum possible time, and every action taken for this purpose;
- (xiii) Arrange for speedy ex- gratia payment as per extant rules.
- (xiv) As Accident Relief Train may take upto 3 hours to reach a remote accident site, the resources available near the accident site are very important and pooled for immediate relief and rescue:

- (i) On board staff e.g. Loco Pilot, Assistant Loco Pilot, Guard, Commercial Staff, Pantry staff, Carriage and Wagon/Electric staff etc.
- (ii) Staff nearby accident site e.g. Gangmen, Station staff etc
- (iii) Help from local people in nearby vicinity.
- (iv) Local administration e.g. Civil administration, Police, Health, Fire etc
- (v) National Disaster Response Force
- (vi) Air Force/Military services
- (vii) It is seen that by pooling the resources of local, state and central government and help from local people, effective disaster management can be done during the Golden Hour. Casualties/injuries is reduced effectively with integration of resources belonging to all the stakeholders for managing disasters

12.2. Duties of Railway Medical Officer

The nearest Railway Medical officer, on receipt of the report of a serious accident with injury to person shall-

- (i) Reach the site of accident with the Medical Relief Train or by the quickest available means, with all men and material commensurate with the serious of the accident;
- (ii) Render medical aid to the injured at site;
- (iii) Make timely and adequate arrangements for shifting the injured persons to suitable hospitals as considered necessary for further treatment;
- (iv) Keep detailed particulars of the dead and injured e.g. their name, address etc. as far as available.
- (v) Deal with the dead and injured as per extant rules and instructions.

12.3. Duties of MS, Sr.DMO, DMO:

- 1) On receipt of the intimation, referring to an accident in his division, he should decide whether any assistance from the neighbouring division/divisions is required. If so, he should send necessary requisition on control phone or by telegram to the neighbouring Divisions.
- 2) He should intimate on control/public phone or by telegram the civil or other non-Railway hospitals, near the site of accident, to be prepared to receive the casualties for admission and treatment.
- 3) He should proceed to the site of accident by first available means of transport for which he should arrange with the Traffic, Engineering and Mechanical Departments to give every possible assistance in his efforts to arrive at the site of accident in the shortest possible time and by the quickest means of transport. If no railway transport is available, he may hire a private transport.
- 4) He should advise medical subordinates en-route to be ready to accompany him.
- 5) If he decides to go to the site of accident by a motor car, he should nominate an official of another department to take charge of any medical equipment.
- 6) He should take with him such members of his staff as required to the site of accident, together with such equipments as he considers necessary judging from the nature and magnitude of the accident and the number of casualties involved.
- 7) He should instruct the Divisional Suptd. of St. John Ambulance Brigade, if headquartered at his station or at the nearest station in his Division, to send as many Brigade personnel with equipments as are available, to the site of accident.
- 8) He should prepare standing orders regarding the procedure to be adopted, in case of accidents, for each health unit and hospital under his jurisdiction with precise instructions in regard to the following –
 - (i) Staff to be taken from headquarters hospital or health unit.
 - (ii) Detailing of staff for duty at the site of accident.

- (iii) Non-Railway hospitals which have to be warned to receive casualties.
 - (iv) Arrangement by staff at headquarters to receive casualties and to discharge convalesced patients or accommodate them elsewhere temporarily, to keep ready operation theatre, sterilized instruments and to put emergency beds.
 - (v) Maintaining contact with authorities of non-Railway hospital to which the injured persons are to be admitted.
 - (vi) (a) He should attend to the injured and make out a quick summary of passengers (a) dead, b) sustained injury (i) Grievous (ii) Simple. These particulars should be given to the Sr.DCM/ senior most officers as soon as possible.
 - (b) Information regarding the names of the passengers injured and dead to be furnished to the public within a period of 3 to 4 hours after the arrival of medical team. For this a senior Doctor should be nominated, at the site, to be made accountable for giving accurate and timely information on this aspect. He should coordinate and obtain the required data about the injured and dead which should be furnished to the originating and destination station of the affected train, the zonal headquarter as well as the Railway Board. The names of injured and dead should be quickly published in the leading newspaper and local dailies.
 - (c) One ADMO should visit hospital daily and report daily progress of patient to the CMO/ Sr.DCM for one week. In case of simple injuries turning grievous/ patients dying later, immediate information should be given to Sr. DCM/DRM.
- He should keep the Chief Medical Officer and D.R.M informed on control/public phone or telegram the exact position regarding the names and number of the persons injured or dead, nature of casualties and time of evacuation of the injured to the hospital. He should also subsequently submit daily reports on the state of health and the progress of the injured persons to the Chief Medical Officer for one week and thereafter at such intervals as desired by Chief Medical Officer.

12.4. Duties of Commercial officer at site

The Sr. Divisional Commercial Manager or in his absence the Divisional/ Assistant Commercial Manager, on receipt of information of a serious accident, shall:

- (i) Reach the site of accident by the quickest available means;
- (ii) See that immediate arrangements are made to protect the area and safeguard the property;
- (iii) Look after the comfort of the passengers, injured and un- injured alike;
- (iv) Ensure prompt supply of refreshments, free of charge, to the injured persons and also make adequate arrangement for refreshment and drinking water for the passengers detained at the site of accident for any reason;
- (v) Ensure, in co- ordination with Medical officer (s) at site, preparation of a complete list of injured and dead persons;
- (vi) Arrange for adequate number of porters for carrying luggage's and parcels in case of transhipment etc.
- (vii) See that the doctors are assisted by porters and other staff in attending to the injured and for shifting them to the hospital;
- (viii) Ensure the making over to the dead bodies to the Police for disposal;
- (ix) Arrange preparation of a complete list of damaged consignments;

- (x) See that the proper arrangements are made for the transshipment of passengers and their luggage at the site of accident if required, as also for transshipment/ unloading of parcels/ affected wagons, if required;
 - (xi) Ensure preservation of documents of damaged parcels, Mails and Goods etc.
 - (xii) Senior most railway officer at the site of the accident shall be the designated Site Manager.
 - (xiii) Management of rescue operations-Primarily Mechanical and Medical departments.
- Assistance to be provided by all railway men (irrespective of their department) as needed.

Details given in Site management Plan II & III.

12.5.Preservation of clues

- (i) Officer or senior subordinate of any department who may happen to be present at the time of an accident took place or who first arrives at the scene of an accident shall, irrespective of whether he is on or off duty, record the statements of the staff concerned and take whatever steps maybe necessary to record or preserve evidence which subsequently might not be available. All clues shall be preserved with a view to enabling reconstruction of the scene at a later date. This is essential even though the civil and police officials may have inspected the scene of the accident and photographs may have been taken. For this purpose, the concerned official shall specially take steps to note the condition and exact position of (i) Vehicles, (ii) Track, (iii) Points, (iv) Signals, (v) levers operating the points and signals,(vi) Breakage of axle, spring , locking bolt and cotter etc, (vii) Any obstruction, (viii) Any tampering, (ix) Engine and its speed recorder, etc. This should be done before commencement of actual restoration operation.
- (ii) A complete and accurate dimensioned sketch of the accident showing the position of vehicles and their condition, permanent way including any detached damaged components, should be made out by the Engineering official and signed by made out by the Senior Engineering and Operating official of the Railway as also by the Senior Police official present. In the case of any signal or level crossing at the site of the accident, a detail position of the same should be indicated in the sketch.
- (iii) In case of sabotage and suspected sabotage, every possible action shall be taken to ensure that any finger prints or foot prints observed at the site of accident are not obliterated.
- (iv) Statements of responsible passengers or eye –witness with their names and addresses who may have witnessed the accident should be recorded. These statements should be signed jointly by the passenger /eye-witness, Railway Official and Civil or Police authority.
- (v) The Railway Official /Inspectors /Supervisors who may happen to be present at site at the time of accident or who arrives first at the site of accident,shall also scrutinize,the train register /Logbook, Station Diary,Line Clear Message book,Private number book,Caution Order, Line admission book, etc. and initial them with date and time indicating the irregularities noticed. In the cases where these records are connected with the cause of the accident, immediate action must be taken to seize the relevant records and seal. In cases where defects of any instrument or /and interlocking gear may have caused or contributed to an accident,the instrument of /and the interlocking gear concerned shall be sealed and not be opened /used except on the authority of the Divisional Railway Manager or his duly authorized representative.
- (vi) In cases of serious accidents with loss of human life or grievous hurt, the restoration work should normally be limited to the removal of dead bodies and injured persons

- from the debris, if any, and wherever by laying a diversion, if it is expected that the Commissioner of Railway Safety may have the benefit of personal examination of the site of accident undisturbed.
- (vii) Wherever possible, photographs of the wreckage shall be taken, which may afford the clue to the cause of the accident. For this purpose, the procedure laid down in the accident Manual should be followed.
 - (viii) In all case of derailments, the marks on the wheels of engine and /or vehicles and marks on the permanent way (rail, sleepers, fishplates etc.) in respect of the wheels mounting on and dropping from the rails, the wheels riding on the ballast etc. shall be specially looked for and recorded. The position of rails, sleepers, fish bolts turnouts etc which bear marks as a results of the accident, especially between the points of mount and drop shall be marked and numbered serially with chalk or paint and carefully preserved .A defects and damages to rolling stock shall be examined in details and recorded immediately after the accident as also the details of the loads i.e. weight, contents, evenly or unevenly loaded etc.
 - (ix) Any, engine, vehicle or other material involved in an accident which is likely to be required for exhibition before any higher official or enquiry committee must be set apart and must not on no account be utilized for the purpose of the working of the Railway, till it is examined by the said official
 - (x) Speed recorded in the locomotive should be examined including its chart. The same may be seized with the signature of the Loco Pilot
 - (xi) In case of serious fire accident in train, after the fire is put out, the affected coaches/wagons or the portion of the Railway property which caught fire should be preserved carefully for inspection by Forensic Scientist.
 - (xii) Railway Officials/Inspectors/Supervisors who may happen to be present at the time of accident or who arrive first at the site of accident shall see that the fire is completely put out and nothing which can lead evidence for the cause of fire including affected Coaches/Wagons is disturbed. However, the Coaches/Wagons may be drawn out from the site cautiously, in order to clear obstructed section and be kept on the siding nearest to the accident spot with the permission of competent authority.
 - (xiii) One photographer with camera and necessary equipments should form integral part of the group of staff who accompany the ARME and ART.

12.6 Preservation of evidence during accident.

(CRS Western Circle letter No.2-5(1)B/2016/116 dated 28.12.2016)

The Railway should preserve various clues and evidences after the accident before restoration of the site. In this regards the following must be ensured.

- i. Videography of entire stretch of accident including the rail fittings, upto on km. Before the disturbed site for each rail separately.
- ii. Videography of the truck separately for the each rail.
- iii. Videography of each rolling stock so as to understand the position of rolling stock after the accident vis-à-vis track and the other adjoining rolling stock.
- iv. Videography of item/components of rolling stock/track before the point of drop and after the point of drop, duly indication their location.
- v. Videography of broken components with close-ups.
- vi. Videography of all clues/evidences, track and rolling stock.
- vii. Operating panel position.
- viii. Data logger Reports.

- ix. Action reported by loco pilot duly cross- verified by speedometer chart and brake application details.
- x. The officers /supervisors preparing joint Note at the accident site should be told to specially cover all the parameters as per accident manual including the distances of various components, fitting laying at different locations. This will include the displacement of wheel of the rolling stock from the track.
- xi. (Vide Railway Board Letter No. 2014/Safety(A&R)/19/6 dated 19.02.2014.)
 “He will ensure that “the video cassette of the serious accidents should be prepared not by taking clipping here and there but in a continuous manner by specifically showing the position of coaches, engine, under gears of coaches and engines, rails, track etc. and the clues which may in turn provide some information to the inquiring authority. Similarly, still photographs should also be taken in a judicious manner.”
- xii. Preparation of Joint report of the accident by Sr.Supervisors after visiting the site should be analytical and in details: **(Railway Board letter No. 2013/Safety (A&R)/19/3 dated 22.04.2013.)**
 “Supervisors should record evidence fully and preserve material. Analysis at the time of collecting evidence is not considered desirable as it can result in leaving out some evidence as not relevant, but which, later on, may be required for analysis and arriving at the correct conclusion.”
- xiii. **Vide RB letter no. 2017/Safety(A&R)/19/11 dated 21.07.2017**, Zonal railways should ensure that senior most officer at the site of accident should ensure that all evidence/clues are perfectly secured and protected, there is no tampering with evidence and videography and photography be done in details to show all the details of the accident.

12.7 Video Coverage at Accident site.

Prior to undertaking restoration measures at an accident sites, suitable video film overage should be arranged where ever feasible. Outside trade may be hired for the purpose. DRMs shall take suitable actions accordingly.

Commercial, Safety, Medical and Mechanical officers are authorized to withdraw money from the station earnings in these cases.

12.8 Joint Note: The following with a keen eye as this can be helpful in drafting the joint note and pin-pointing the responsibility:

- a. Point of derailment with respect to Kilometrage (point of mount and drop).
- b. Marks on sleepers, rail head, etc.
- c. Physical condition of sleepers, rail, track fittings ballast, embankment, etc.
- d. Physical condition of the locomotive involved in the accident.
- e. Physical condition of the rolling stock involved in the accident.
- f. Other tell-tale marks or evidence such as speed of the train, drag, etc. which may come to light or detached parts/fittings or rolling stock, loco, track, etc. having a direct or indirect bearing on the cause of accident or which may prove to be helpful in establishing the cause of the accident.
- g. Reading of track as regards gauge, super elevation, cross levels, rail head wear, etc.
- h. Reading of the rolling stock.
- i. Examination of Brake power of the train involved in the accident.
- j. Statement of the crew, guard and other concerned staff.
- k. Seizure of relevant record, position of signals, track circuits, Crank points at site, indication at the panel.
- l. Reading of various counters provided on the panel and as recorded in the station journal and counter reading register.
- m. Names of the LocoPilot/Assistant and Guard of the train.
- n. Marshalling order of the train, engine No., its load, brake power, etc.
- o. Whether the train was booked to stop or run through.
- p. Approximate cost of damage to the various assets of the Railway.

Sr.Subordinates of Traffic, C&W, Engineering, S&T and Loco shall prepare a joint note giving description about the direction of the movement of train pin pointing the responsibility of the staff/department.

CHAPTER 13

Disaster Response– Officers at Division and HQ

13.1.1 Information of Accident- Divisional Control office

- (i) In the Divisional Control Office, information regarding an accident is generally received either by the Station master, Section Controller or LP/ALP/Guards.
- (ii) In most cases, the First Information Report also intimates the approximate number of coaches involved and a rough estimate of the likely number of casualties (such as “heavy casualties expected”).
- (iii) Accidents involving a passenger carrying train where the first information says that heavy casualties are expected, should prima-facie be treated as a **Disaster**.
- (iv) The moment information regarding an accident involving a passenger carrying train is received in the divisional control office; the accident bell in the control room should be sounded for alerting all on-duty functionaries.
- (v) After all, on-duty functionaries gather around the section control board they will be briefly informed about the accident.
- (vi) Each functionary will thereafter resume his position and take steps to set in motion activities required from him.
- (vii) TPC will switch off OHE in case it has not tripped. OHE will not be restored even on adjacent line unless confirmation has been received from site that adjacent line is not obstructed and OHE is all right.
- (viii) Controller/CHC will undertake the following action in the given order of priority:
 - a) Give orders to on duty Crew Controller controller/SMs for sounding the Hooter for ARMVs / ARTs with crane if required.
 - b) CHC will also order movement of ARMV and ART (with 140T crane if required) from adjacent divisions for approaching the accident site from required) from adjacent divisions for approaching the accident site from the other end after getting approval from competent authority. Details of the other end after getting approval from competent authority. Details of ART/ARME in adjacent Railways are given in Chapter-5. Thereafter, he will inform his Departmental Officers and Supervisors.
- (ix) Dy.CHC(Chg.) will first inform to Hospital regarding Casualty. Thereafter he will inform officers and supervisors of the division with the help of other departmental agencies in control office.

13.1.2. Intimation of Accident – Railway Doctors

Dy.Chief Controller (Chg.) will first inform the Emergency unit of Railway Hospital regarding details of the accident. Railway doctor on emergency duty shall undertake the following:

- (i) Note down time of receiving message.
- (ii) Inform CMS, MD, MS Doctors & Para medical staff and instruct them to reach the ARMV immediately.
- (iii) Collect necessary Medical team in the hospital.
- (iv) Inform CMD about movement of ARMV.
- (v) Alert blood donors, St. John Ambulance Brigadage.
- (vi) Bare minimum medical team should remain in the hospital; rest of the doctors should be rushed to the accident site by ARMV first and then by other fastest mode of transport.
- (vii) Arrange to move Emergency First Aid boxes from ARME Scale-II locations to accident site.

13.1.3 Intimation of Accident – HQ Emergency Control Office

- (i) In HQ Central Control Office also, the accident bell in control should be sounded for alerting all on-duty functionaries' room.
- (ii) After they gather around the Dy.CHC they will be briefly informed about the accident.
- (iii) Each functionary will thereafter resume his position and take steps to set motion activities required of him.
- (iv) Each departmental functionary will inform HQ Officers about the accident in the following manner–
 - a) Dy.CHC(Chg) –PCOM, PCSO, AGM/SDGM, PCMD, PCE, PCCM, CCE, PCSTE, CPRO, PFA, PCPO, PCSC
 - b) TPC (Electrical) - Electrical Officers.
 - c) CCR- Mechanical Officers.
 - d) Engg. Control – Engineering
 - e) S&T Control - S&T
 - f) Commercial Control - Commercial, Public Relations.
 - g) Security Control - RPF Officers.
- (v) For this purpose, all functionaries working in the Central control office will have a ready list of telephone numbers (Railway, BSNL and Mobile) of all officers and supervisors of their departments concerned.
- (vi) GM will inform CRB regarding the above accident.
- (vii) PHODs will inform their respective Board Members. In case PHOD is not available in HQ, then the next Senior Most Officer of that department will inform his Board Member.
- (viii) PCSO/Dy.CSO will inform CRS and nodal Officer of Safety Directorate of Rly. Board.
- (ix) Dy. CHC (Chg.) will thereafter inform Divisional Control Office regarding running out of 1st Special train to the accident site carrying GM and other HQ Officers.
- (x) Functionaries of different departments will also inform their respective departmental officers regarding timing of 1st Special train carrying GM and other Headquarter officers to the accident site.
- (xi) In case the accident site is far off and going by air would be faster, then either helicopters or special Air Force planes may be organized from the nearby IAF Base by Secy. to GM.

13.1.4 Informing Non–Railway officials

- (i) CHC shall inform District Magistrate, Supdt. Police and CDMOs of the district within which the accident site falls regarding the accident.
- (ii) DRM/ADRM shall inform the following regarding the accident:
 - a) IG/GRP.
 - b) ADG/GRP.
 - c) District Commissioner/District Magistrate.
 - d) Home Secretary of the state.
- (iii) In case POL rake is involved, then IOC/BPC/HPCL officials should also be informed.
- (iv) In case Mail bags of RMS are involved, then Postal officials should also be informed.
- (v) Telephone numbers of all DMs, SPs, CDMOs and District Commissioners are available in Zonal/Divisional DM Plans.

- (vi) Telephone numbers of IOC, BPC and HPCL officials are also available in the Zonal/ Divisional DM Plans.
- (vii) Telephone numbers of ADG/GRP, IG/GRP, and Home Secretary etc. of Rajasthan, Haryana, Punjab and Gujarat.

13.1.5. Divisional Officers required go to site

- (i) DRMs/ADRM, CMS with his team of doctors and paramedical staffs, Branch Officers—Sr.DME/DME, Sr.DSO/DSO, Sr.DCM/DCM, Sr.DSC/DSC, Sr.DEE, Sr.DEN(Co-ord), Sr.DEE(TRD)— should move with ARME while AME and other sectional officers of concerned department will move with ART.
- (ii) Road vehicles should be sent to accident site separately. Maximum number of road vehicles should be sent to accident site from Divisional HQ.
- (iii) ARMV shall be dispatched within 15 minutes by day where there is double exit siding and within 25 minutes in case of single exit siding with the first available locomotive (Power/Engine) after sounding of Hooter. Train ordering officials will order the movement of ARME without delay.
- (iv) DRM will proceed to the accident site. ADRM shall stay back at Divisional HQ. for co-ordination work.
- (v) The Second Senior Most Officer of each branch should stay back at Divisional HQ.
- (vi) Once it has become clear that the accident is a Disaster, DRM/ADRM will decide the no of officers required to proceed to the accident site. Similarly, individual branch officer will decide the no of supervisors and staff required at the accident site.
- (vii) The Complement of Officers available in each department varies from division to division. Hence, Divisional DM Plans should specifically spell out department wise, designations of officers who will be required to go to site, and those who will be required to stay back in HQ.
- (viii) Divisional DM plans should also spell out the same thing for Supervisors of each department.
- (ix) Arrangements of Road Vehicles to proceed to accident site, indicating alternative vehicles as well, shall be indicated in Divisional DM Plans. Arrangements of vehicle, Loco Pilots including spare Loco Pilots shall also be notified.

13.1.6. HQ Officers required go to site

- (i) The following HQ Officers as detailed at (iv) below will proceed to accident site by the first special train, which will be carrying GM.
- (ii) This special train shall be arranged by JP Divisional Control Office, in consultation with HQ Emergency Control. Scheduled departure time will be informed to HQ Officers by their departmental functionaries in HQ Central Control.
- (iii) GM will proceed to the accident site. COM shall stay back at zonal HQ for coordination work.
- (iv) Department wise, designation of officers who are required to go to site and those who will require staying back in HQ shall be decided by PHOD/CHOD. **Details given chapter 19 under heading department wise blue print.**

Disaster Response– Co-ordination Centres

- (i) Movement of ARMV and ART should never be clubbed together. ARMV should be started first and moved separately for faster movement.
- (ii) ARMVs and ARTs should be despatched from the base station, within the target time stipulated. Departure of ARMVs and ARTs should not be delayed on any account including arrival of doctors/officers. Anybody who is left behind can proceed later on either by GM special or by next special train or even by road.
- (iii) ARMVs must be run out within the target time, even without full complement of doctors, if necessary. This will ensure that other doctors who are available at accident site can utilize facilities of ARMV after its arrival at site.
- (iv) ARMVs and ARTs should be moved on top priority taking precedence over all other trains. They should not be stopped anywhere en-route for picking up any one.
- (v) Running lines of adjoining stations on either side of the accident affected block section should be kept clear of all trains for shunting of ART/ARMV and evacuation of affected portion of the train. In case there are any stabled loads, the same should be lifted, if possible.

- (i) The moment information is received about the accident, all Mail/Express trains on run towards the accident involved section should be stopped. They should not be advanced beyond the last Junction station or at major stations from where they can be diverted or suitably controlled/terminated.
- (ii) They should be regulated at convenient stations before a decision is taken regarding their further movement. This decision should normally be taken within the next one hour.
- (iii) Trains should preferably be regulated at stations where food can be arranged.
- (iv) However, too many trains should not be simultaneously brought to a Jn. Station for regulation, since it may create law and order problems.
- (v) Passenger trains can be run out to the next convenient location and thereafter terminated so that their rakes are available for use.
- (vi) HQ Emergency Cell shall decide on the following in consultation with adjoining Railways and Coaching Directorate of Railway Board:

- Diversion,	- Cancellation,	
- Regulation	- Re-scheduling.	- Short termination,
- (vii) The above decision regarding diversion etc. should be taken in about one-hour time after ARMVs, ARTs & GM special have been run out and there is a slight lull in the information flow.
- (viii) As far as possible, trains which are already on run should be diverted. They should not be short terminated, since this will create problem of dispersal of passengers.
- (ix) Trains should be diverted from the last possible Jn. Station onwards so that maximum number of passengers can detrain at their proper destination stations.
- (x) Sr.DME/P would be in-charge of co-ordination with operating department regarding requirement and availability of crew deployment.
- (xi) Sr.DME/P will take into consideration changing traffic requirement because of diversions etc. and accordingly plan crew deployment.

- (xii) Adjoining divisions should be informed about these diverted trains so that spare crews can be sent to interchange points.
- (xiii) For diverted trains, Loco Pilots and guards having necessary road learning should be arranged.
- (xiv) Loco Pilots nominated for working these diverted trains should be empanelled for working Mail/Expresses as per Railway Board's instructions, if available on roster.
- (xv) Crews should also be planned for diesel engines sent to the accident site working ARMVs, ARTs, other special trains and likely to be held up there for next 2-3 days.

14.3 Running of Special trains

Following special trains will be required to be run in the given order of Priority to the accident site:

- i. Two SPART/ARMV from each end and two additional 3 Coach SPART/ARMVs from adjoining divisions, one from each end.

ARTs--

- i. ART from the both the ends.
- ii. Two additional BD Specials one from each end.
- iii. 1st special train carrying GM and other officers from HQ.
- iv. Unaffected front portion of the accident involved train in case the same can be moved subject to fitness given by Mechanical Department.
- v. Unaffected rear portion of the accident involved train in case the same can be moved subject to fitness given by Mechanical Department.
- vi. In case the front and rear portions cannot be moved, then they should be left as they are.
- vii. Two empty coaching rakes, one from either end for clearing unaffected passengers of the accident involved train for transshipment of passengers and luggage.
- viii. Special trains for accident site, one from each end, carrying logistic backup support, material and additional manpower from junction stations. These should normally be run out 1 – 2 hrs after arrival of ARMV carrying DRM and other divisional officers at the accident site.
- ix. Before these 2nd and 3rd special trains are run from each end, Railway staff at all stations en-route should be informed regarding running of these trains so that supervisory staff of all departments, from Jn. Stations can go to the accident site on these trains.
- x. Two Diesel light engines should be stationed, one at each station on either side of the accident involved block section to ferry the Electric Traction trains.
- xi. Two Engineering specials, one from each end, carrying engineering material and gang men from the section.
- xii. Running of 2 passenger specials for carrying relatives to the site of accident. 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. This is to be co-ordinate by HQ Emergency Cell in consultation with Railway Board.
- xiii. Arrangement for the visit of MR/MOSR, CRB and other Board Members to the accident site should be made in coordination with the Safety Directorate and Secretary, Railway Board.
- xiv. Tents to be pitched near the site for the labour to take rest.

14.4 Setting up Emergency Cells in Divisions

- i. Divisional Emergency Cell shall be opened immediately after receipt of information of the accident at Divisional Control Office.
- ii. This unit will exercise control, co-ordinate and arrange supplementary assistance to the accident site.
- iii. It shall function in a separate cubicle at Divisional Control Office provided with centralized communication networks, hot line to the site and HQ
- iv. Sr. DOM will be over all in charge of the Divisional Emergency Cell and will function as the Divisional Emergency Officer for the purpose of managing relief and restoration operations from Divisional level.
- v. In case Sr. DOM is not available, DOM will be the Divisional Emergency Officer.
- vi. In case both officers are not available, any other officer nominated by DRM will take over charge.
- vii. Requirements of all departments for movement of men and materials to the accident site shall be conveyed to the Divisional Emergency Officer, who shall arrange their movement.
- viii. Timings of 2nd and 3rd special trains to be moved from each end to the accident site, carrying backup logistic support will be conveyed to all concerned beforehand.
- ix. Divisional Emergency Cell will maintain:
 - Telephone and FAX numbers of the accident site. These should be maintained functionary wise for each functionary available in the UCC.
 - Similarly, telephone and FAX numbers of functionaries available in CAC should also be available with the Divisional Emergency Cell.
 - Telephone and FAX numbers of Help line Enquiry Booths that would have been set up at various stations on the division.
 - E-Mail addresses of UCC, Help line Enquiry Booths and HQ Emergency Cell.
 - Names and phone numbers of hospitals where injured have been admitted/shifted, along with number of patients.
- x. Divisional Emergency Cell will collect updated information regarding all aspects of the accident and pass on the same either telephonically or by E-Mail to: All Help line Enquiry Booths within the division, HQ Emergency Cell.
Divisional Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook.

14.5 Setting up Emergency Cell in HQ

- i. HQ Emergency Cell shall be opened immediately after receipt of information of the accident at HQ Office.
- ii. This unit will exercise control, co-ordinate and arrange supplementary assistance to the accident site.
- iii. It shall function from a separate room in NWR HQ Office “Disaster Management Room”, provided with centralized communication network, hot line to UCC and Divisional Emergency Cell.
- iv. In the absence of COM, CPTM (in his absence CFTM) will be over all in charge of the HQ. Emergency Cell and will function as Chief Emergency Officer for the purpose of managing relief and restoration operations from HQ Level.
- v. Requirements of all departments for movement of men and materials to the accident site from adjoining zones and divisions shall be conveyed to the Chief Emergency Officer, who shall arrange their movement.
- vi. HQ Emergency Cell will maintain:
 - Telephone and FAX numbers of the accident site. These should be maintained functionary wise for each functionary available in the UCC.

- Similarly, telephone and FAX numbers of functionaries available in CAC should also be available with the divisional emergency cell.
 - Telephone and FAX numbers of Help line Enquiry Booths that would have been set up at various stations on adjoining zones.
 - E-Mail addresses of UCC, CAC, Help line Enquiry Booths and Divisional Emergency Cells set up on other Divisions of NWR.
 - E-Mail addresses of Emergency Cells opened on train origination terminating Divisions & Zones and Safety Directorate Emergency Cell in Railway Board.
 - Names and phone numbers of hospitals where injured have been admitted/shifted along with number of patients.
- vii. HQ Emergency Cell will collect updated information regarding all aspects of the accident and pass on the same either telephonically or by E-Mail to:
- Emergency Cells opened on other Divisions of NWR
 - Emergency Cells opened on originating and terminating Zonal Railways
 - Safety Directorate's Emergency Cell in Railway Board
- viii. HQ Emergency Cell will monitor movement of ARMVs/ARTs etc. coming from adjoining Zones/divisions.
- ix. Assistance from Defence, Para military establishments, State Government should be coordinated by HQ Emergency Cell as and when required. Officials to be contacted and their telephone numbers are indicated in Annexure.
- x. Chief Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook.
- xi. SDGM/CPRO shall monitor various important media channels to keep track of media reporting, Suitable corrections/clarifications may also be issued, if required.

14.6 Manning of Divisional/HQ Emergency Cell in shift duty:

- i. Divisional/HQ Emergency Cell shall be manned round the clock by officers.
- ii. In addition to officers of the Operating Department, there will be officers of Engineering, Mechanical, S&T, Commercial, Electrical, Medical, Security and Personnel departments in the Divisional/HQ Emergency Cell round the clock.
- iii. Divisional Emergency Cell will be manned by Senior Scale/Junior Scale officers of all departments in 12 hrs shift duties round the clock.
- iv. Similarly, HQ Emergency Cell will be manned by JA Grade. Senior Scale Officers of all departments in 12 hrs shift duties round the clock.
- v. Senior most officer of each department who is available in the division/HQ shall be on duty in the Divisional/HQ Emergency Cell during the day shift (8 hrs. to 20 hrs.).
- vi. Senior most officer of each department shall issue a 12 hrs. roster for his own department for the night shift (20 hrs. to 8 hrs.).
- vii. Round the clock roster of 12 hr. shift duty should cover both Officers and supervisors.
- viii. Same officers and supervisors should be repeated each day without any change or rotation, for the next 4-5 days. This will maintain continuity and will ensure that experience gained on the first day can be gainfully used on subsequent days.

CHAPTER 15

Disaster Response

Assistance from adjoining Divisions/ Zones /DMA/DDMA/MHA//NDRF

15.1 Necessity of Assistance from Adjoining Divisions / Zones

- (i) No division can be equipped to handle a disaster of such a large magnitude like Firozabad or Gaisal.
- (ii) Assistance has to be sought from adjoining Divisions/Zones.
- (iii) A division is normally expected to handle an accident of the magnitude involving up to 100 injuries (Grievous + Simple). Threshold levels have been given in terms of injuries, because initially it is difficult to estimate number of casualties.
- (iv) Whenever number of injuries is estimated to go beyond 100, assistance should be sought for from adjoining Divisions/Zones.
- (v) This is to be co-ordinated by the Chief Emergency Officer in HQ Emergency Cell.

15.2 Assessment of Assistance from Adjoining Divisions/Zones

- (i) DRM after reaching the accident site should make an immediate assessment like injuries.
- (ii) Quick assessment is an absolute must in order to ensure that assistance from adjoining divisions can be rushed at the shortest possible time.
- (iii) Assessment made by DRM should be based on number of coaches involved.
- (iv) As a thumb rule, for each coach that has capsized, 30 injuries should be estimated.
- (v) Total injuries estimated would be (no.of coaches) x 30.
- (vi) This should be conveyed to Sr.DOM in Divisional Emergency Cell and Chief Emergency Officer in HQ Emergency Cell.
- (vii) Based on the above figures, decision should be taken and assistance rushed from adjoining divisions and zones.

15.3 Scale of Assistance from Adjoining Division / Zones

- (i) As a thumb rule, assistance of 1 team should be sought from adjoining division for every 50 additional injuries, beyond 100 injuries.
- (ii) In case of all disasters, following should be used as an approximate guideline for deciding level of assistance required:

Threshold level	100 to 150 Injuries	150 to 200	above 200 Injuries
No. of teams	1 team	2 teams	3 teams
ARMVs	2	2 + 1	2 + 2
140 T crane	2	2 + 1 BD	2 + 2 BD
- (iii) Complement of staff in each team sent by adjoining divisions/zones will be as per norms given below:

Officer in charge	Senior Scale
Doctors	5
Para – medical staff	10
Commercial officers	2
Commercial supervisors-10, staff- 20	
RPF- One platoon, personal -5,	

15.4 Assistance from Defence & Para Military Forces

- (i) Assistance should be sought from nearest army & para-military establishments, NDRF and Rajasthan state disaster management authority (RSDMA).
- (ii) Railway staff no matter how dedicated and loyal are not experts in extricating dead bodies, handling injured passengers & their evacuation etc.
- (iii) In case of assistance required from the nearest NDRF unit, should be requisite through Railway Board to NDMA, New Delhi by DRMs/PCSOs.
- (iv) Army has the necessary expertise and are trained and equipped to handle such a war like situation.
- (v) Therefore, Divisional/Zonal HQ Should get in touch with the nearest army command and request for necessary assistance.
- (vi) Selected telephone numbers of Army and Para-military establishments are given in PART –ii of DM Plan.
- (vii) Additional telephone numbers of Army are given in Divisional DM Plans.

15.5 Departmental Assistance from Adjoining Divisions / Zones

15.5.1 S&T Department

- (i) Satellite Telephone numbers of ARTs from 05 adjoining divisions.
- (ii) 05 Mobile Telephone numbers of each ART from 5 adjoining divisions (25 mobiles in all).

15.5.2 Electrical Department

- (i) Generators and fuels from ARTs of adjoining divisions.
- (ii) Lighting equipments from ARTs of adjoining divisions.
- (iii) Portals/ OHE masts or other OHE fittings etc.

15.5.3 Civil Engineering

- i. Additional workmen are required who are to be moved from adjoining divisions/zones.
- ii. Each such division sending assistance should move 250 men along with 5 artisans and 5 SSE (P. Way).

One DEN and one AEN each should also move to the site of accident from each such Division.

In case of JP division assistance asked from AGC/NCR, KTT/WCR & DLI/NR

For BKN-FZR, UMB & DLI of NR,

For JU-ADI/WR

For AII-RTM, ADI/WR

Note- Mobilization of work force and deployment of resources at the accident site is the sole direction of DRM, however, it should be as required basis assistance from adjoining division /Zones should only be sought, with the consent of GM, if the situation and gravity of accident so warrant.

15.6 Resources to be hired during an accident

Medical	S&T	Engineering	Electrical	Commercial	Security
Ambulance	Mobile Phones and Satellite phones	JCB, Cranes, Truck, Vehicles from contractor, Earth Moving equipments, Bulldozers, Tipplers etc.	Lighting equipments, Generators, if required.	Buses, Hotels & Dharamshalas, gas stoves and gas cylinders and services of NGOs etc.	Services of army, Air Force, BSF and CRPF etc.

CHAPTER 16

Site Management Plan–I

16.0 There are 3 aspects of Disaster Management work at an accident site-

- (i) Rescue, relief and restoration operation, which is carried out by one set of functionaries.
- (ii) Second aspect pertains rehabilitation of accident involved passengers, taking care of dead bodies, dealing with their relatives etc. for which a different set of functionaries is required. For managing these 3 distinct aspects of DM work that are required to be discharged by Railways, three separate establishments should be set up at an accident site. The outline schematic plan of accident site given at Annexure- 2.
- (iii) Transportation of stranded Passengers.

16.1 The main activities undertaken by Railway administration at accident site are:

- i) The medical team attends to the injured passengers and those seriously injured are transported to nearby hospitals.
- ii) The cost of such treatment is borne by the Railways. Deaths are certified by doctors and dead bodies are handed over to Police for further action such as autopsy etc. for medico-legal purpose.
- iii) Railway doctors are deputed to the hospitals where the injured are admitted, to render necessary assistance, including supply of required medicines, etc.
- iv) In addition to the above own resources, nearby ambulances and doctors with paramedics, fire brigades, other necessary resources are also requisitioned as per need for expeditious operations
- v) Information like names, addresses and telephone numbers of nearby hospitals, local police, fire brigade, officials of Civil Administration etc. are available at Stations/Divisional controls and immediate relief is sought at the time of accident.
- vi) In case of serious accidents involving passengers, National Disaster Response Force (NDRF) is also requisitioned. 24X7 control room of Ministry of Home Affairs (MHA) or the control room of concerned ministry is contacted for mustering help from defense services including help of Air Force.
- vii) Relief trains are arranged for clearing stranded passengers.
- viii) Arrangements for supply of meals, drinking water, and beverages etc. are made not only for the injured, but also to other passengers of the affected trains.
- ix) Once affected passengers are attended, accident site is restored back to normal traffic with the help of break-down cranes, hydraulic rescue equipments, etc.
- x) The accident inquiries are conducted within a time frame and preventive/corrective actions are taken accordingly.
- xi) Timely information is given to the press to avoid misreporting and speculation about the casualties and the cause of the accident.

16.1 UNIFIED COMMAND CENTRE (UCC)

- (i) Unified Command Centre (UCC) should be set up at the accident site under the overall coordination of Mechanical Department.
- (ii) This will be some kind of a control office to be located near the centre of the accident site.
- (iii) This is basically meant for catering to operational needs of Railway in rescue, relief and restoration work.
- (iv) Detail schematic plan of UCC is given at Annexure – 2.

- (v) UCC is to be manned by staff of relevant departments such as: Medical, Commercial, Personnel, Operating, Safety, Security, Public Relations, Mechanical, Electrical, S&T and Engineering.
- (vi) UCC will be provided with all facilities similar to a control office.
- (vii) Adequate lighting with generator backup should be provided in the UCC.
- (viii) Adequate number of telephonic links to Divisional Emergency Cell and HQ Emergency Cell should be provided. Preferably each department in the UCC should be given an independent telephone including satellite telephone, fax, photo copier, PCs and loud speaker.
- (ix) PC/Laptop should be connected to Internet for E-Mailing of detail update to all concerned, including Divisional Emergency Cell, HQ Emergency Cell and Help line Enquiry Booths.
- (x) A big banner displaying 'UNIFIED COMMAND CENTER' should be put up at a prominent place at the entry to the shamiana, with sufficient signage's indicating its direction or approach road.
- (xi) UCC at the site will be manned by Sr. Supervisors on round the clock basis in 12 hrs. shift duty and they will monitor & co-ordinate working of their departments.
- (xii) Various functionaries in the UCC will monitor and co-ordinate the working of their departments, and assistance required by them, if any.
- (xiii) Each functionary at the UCC will maintain a log book. Flow of information both incoming and outgoing would be recorded along with the time and names of officers/staff who were given the message.
- (xiv) UCC will basically supervise the working of 2 LCCs and coordinate with Divisional and HQ Emergency Cells
- (xv) Functionaries of different departments in LCCs should provide updated information regarding progress of work to their counterparts in UCC

16.2 LOCAL COMMAND CENTRES (LCC)

- (i) Depending on the spread of the accident site, Local Command Centres (LCC) on the same pattern as the UCC should be set up.
- (ii) If the site is spread out over 300 – 400 mts. 2 LCCs should be set up.
- (iii) Detail schematic plan of LCCs would be similar to that of UCCs as given at 4 Annexure.
- (iv) Representatives of same departments as in UCC should be present in LCCs also. However, they should be either one or at most 2 men per department. It co-ordinate various teams spread out over the site of accident.
- (v) Each LCC will oversee the working of DM teams at one end of the accident site.
- (vi) Jurisdiction of each LCC will extend to all men and materials belonging to 2 ARMVs, BD special and 1 ART at that end of the accident site.
- (vii) One SAG officer of Mechanical department will be overall in charge of each LCC with loud speaker for making announcements and direct telephone link with UCC.

16.3 Need for setting up of central passenger assistance centre

For taking care of relatives of passengers, providing them with succor in their hour of agony and for guiding them sympathetically, some kind of an assistance center is required at site, under overall coordination of Commercial Dept. taking help from different Departments as mentioned. A banner displaying "CENTRAL PASSENGER ASSISTANCE CENTRE" should be displayed prominently.

16.4 Assistance to be rendered to the relatives of passengers

16.4.1 Assistance to be rendered to relatives for completing the following formalities:

- (i) Locating the name of the passenger on reservation charts, in case passenger was travelling in reserved accommodation.
- (ii) Going through the list of injured and dead passengers to find out whether the name appears.
- (iii) In case the name is not available in the list, then taking a round of different hospitals to find out whether their relative has been admitted in one of them in an unconscious state.
- (iv) Hospitals are generally at separate locations, sometimes even in different towns; and commuting becomes a problem.
- (v) In case the passenger can be located in one of the hospitals, they have to find out the severity of injuries, likely period of hospitalization etc.
- (vi) Collect the ex-gratia paid by Railways.
- (vii) Try and locate missing luggage of the injured passenger. For this they have to take a round of the building where all unclaimed luggage has been kept.
- (viii) Next, they have to arrange for a place for themselves to stay.
- (ix) Arrange for medicines/diet etc. and payment of hospital bills, if required.
- (x) Thereafter, they have to keep touch with the hospital and get their relative released.

16.5 Assistance to be rendered to the relatives /next kin of dead passengers

- (i) They are to be given the following assistance :
- (ii) In case the passenger could not be located in any of the hospitals, then they have to go to the building where unidentified dead bodies have been kept.
- (iii) Take a round of various rooms where bodies have been kept, examine each body and try and locate their near and dear one.
- (iv) Identify the dead body, if the same has been extracted by then.
- (v) Otherwise wait for all bodies to be extracted and try and identify their relative.
- (vi) In case they fail to identify the same then they have to go through Photographs of unidentified bodies taken at site.
- (vii) After the body is finally identified, they have to produce proof of relationship for Railways to entertain their claim.
- (viii) Obtain medical death certificate from the Railway doctor.
- (ix) Obtain post mortem report, from the Govt. doctor who has performed post-mortem on the body.
- (x) Obtain official death certificate from the local municipality.
- (xi) Accept of ex-gratia payment from Railways.
- (xii) Collect forms for lodging claim for compensation from Railway Claims Tribunal.
- (xiii) Take over custody of dead body from the local Police.
- (xiv) Performs last rites at the same place or take back the body to their native place, depending on circumstances.
- (xv) Make arrangements for their return journey back to their native place.

16.6 COMBINED ASSISTANCE CENTRE (CAC)

- (i) The UCC should have a Central Passenger Assistance Center CPAC) located towards the rear side, away from the track for rendering help to passengers and their relatives. Outline schematic plan of UCC/CAC is given at Annexure-ii.
- (ii) This is basically meant for catering to requirements of passengers and their relatives/next of kin, and for providing a single window clearance for all types of formalities.

- (iii) CAC should be separate from the UCC so that it does not interfere with normal rescue and relief work.
- (iv) Detail schematic plan of CAC is given at Annexure-3.
- (v) CAC will be manned by staff of relevant departments such as:
Operating, Medical, Commercial, Security & Personnel
- (vi) There should be only one such CAC, and all Railway resources should be pooled into it.
- (vii) A big banner displaying 'COMBINED ASSISTANCE CENTER' should be put up at a prominent place at the entry to the shamiana.
- (viii) Different counters should be provided in sequence for each of these formalities, so that the entire exercise can be completed in about an hour.
- (ix) Functionary concerned from the local Municipality who issues Official Death Certificates should be made to come and sit in the CAC so that these certificates can be issued immediately without any delay.
- (x) CAC should have different counters for various purposes in following sequence:
 - a) Reservation chart, for locating the name.
 - b) List of dead and injured along with name of hospital. The name of passenger 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 WI as escort along with vehicle(s), for accompanying the relative and going to hospitals or mortuary,
 - d) Railway doctor for issue of Medical Death Certificate.
 - e) Govt. doctor for issue of Post mortem Certificate, in case the same is necessary.
 - f) Officer – in – Charge of CAC to supervise the CAC.
 - g) Municipality official for issue of Official Death Certificate.
 - h) Local police for issue of authority for handing over of dead body.
 - i) Claims counter – Payment of ex-gratia and issue of Claims Compensation form.
 - j) Counter for helping performance of last rites in case relatives decide to cremate the body there itself.
 - k) Pass counter for issue of return journey pass.
 - l) Return journey facilitation counter for making arrangements for return journey.

16.7 First Aid Posts

- (i) Medical Posts should be provided in both UCC and CAC.
- (ii) Medical Post in UCC will provide first aid to injured passengers after extrication, assess their injuries and make arrangements for sending them to nearby hospitals.
- (iii) Medical Post in CAC will keep all records of injured and dead passengers,
- (iv) First Aid Posts should be provided in LCCs.
- (v) This will mean for treating passengers and classifying their injuries before they are sent for admission to various hospitals.

16.8 Setting Up of UCC, LCC AND CAC

- (i) One SSE/Works shall be exclusively responsible for setting up of these facilities. He shall undertake the following:
 - a) Move along with sufficient staff for setting up of these facilities.
 - b) Immediately start setting up of the tentage accommodation after taking out tents and shamianas provided in ARTs.
 - c) In addition, he should also requisition agencies which provide tentage accommodation on contract. Details of such agencies have been given in Divisional DM Plans.

- (ii) Bridge Line staff will assist in setting up tentage and above-mentioned facilities. Dy.CE/Bridge will also move to the site and in case, bridge is not involved, he will take full charge of tentage arrangements.
- (iii) Bridge Unit will take with them sufficient Manila ropes, wire, ropes, survey instruments, binoculars, helmets, life jackets, ladders and other equipment. Nylon ropers should be sufficient in length to ensure barricading at site and camping areas.
- (iv) Sufficient facilities for erecting temporary stage/scaffolding etc. should also be organized, if required at site.
- (v) Few temporary toilets should be provided at one location in addition to number of urinals at 3 or 4 places.
- (vi) Water tankers will be ordered for supplying water at site and arrangements shall also be made for drinking water
- (vii) Temporary kitchen in tents/shamianas is to be set up so that catering unit or IRCTC can provide cooked food to staff working at accident site.
- (viii) Adequate no of chairs should also be arranged.
- (ix) Bridge Line staff will have list of divers who in case of emergency can be hired for rescue or restoration operations wherever site is surrounded by deep water.
- (x) Signage's for both UCC and CAC should be provided at prominent locations.

16.9 Number of dead and injured – Medical Department

- (i) Medical department at site should confirm the number of dead.
- (ii) Doctors in charge of various teams working on different coaches should give 03 hourly report to Medical counter in LCC who in turn will inform UCC, CPAC and others.
- (iii) Number of injured passengers.
- (iv) Type of injuries, whether grievous, minor or trivial.
- (v) Names of injured, and names of various hospitals where injured have been sent.

16.10 Identification of dead bodies-Commercial Department

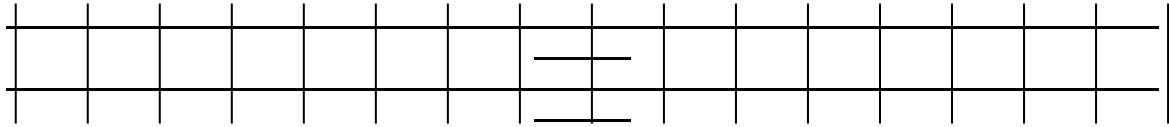
- (i) Number of dead bodies identified.
- (ii) Ex-gratia paid to injured and next of kin of the dead.
- (iii) No. of dead bodies handed over to relatives.

16.11 Number of coaches dealt with–Mechanical Department

- (i) No. of coaches thoroughly searched.
- (ii) No. of coaches made off track.
- (iii) No. of coaches yet to be dealt with.

Annexure –1

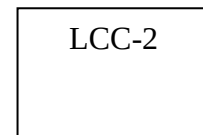
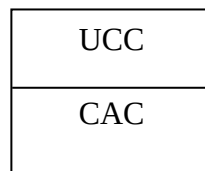
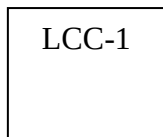
OUTLINE SCHEMATIC PLAN OF UCC/CAC/LCCs



[Remote Disaster site]
(if required)

(Nearer to main Disaster site)

[Remote Disaster site]
(if required)

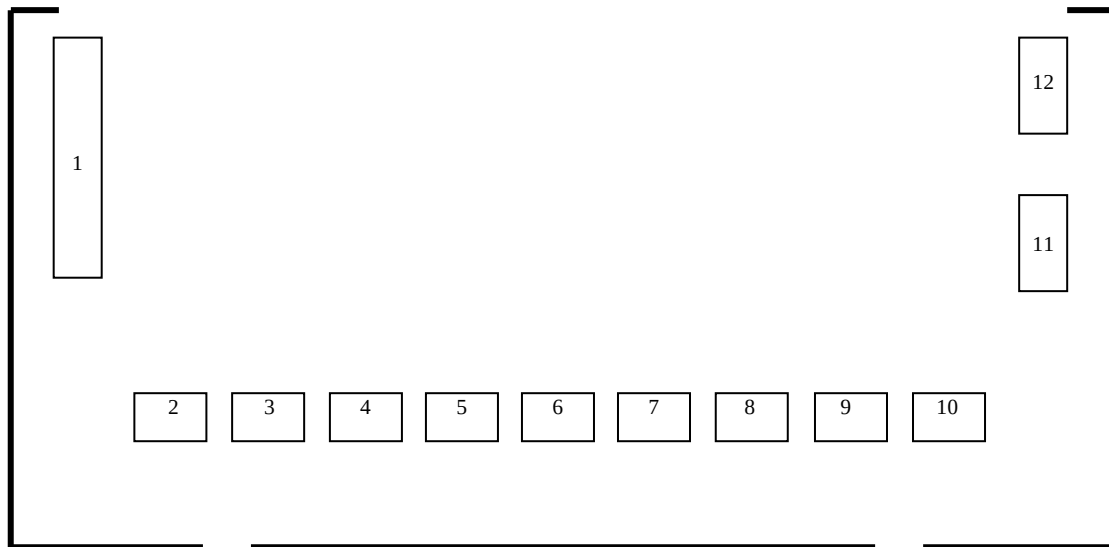


UCC : Unified Command Centre

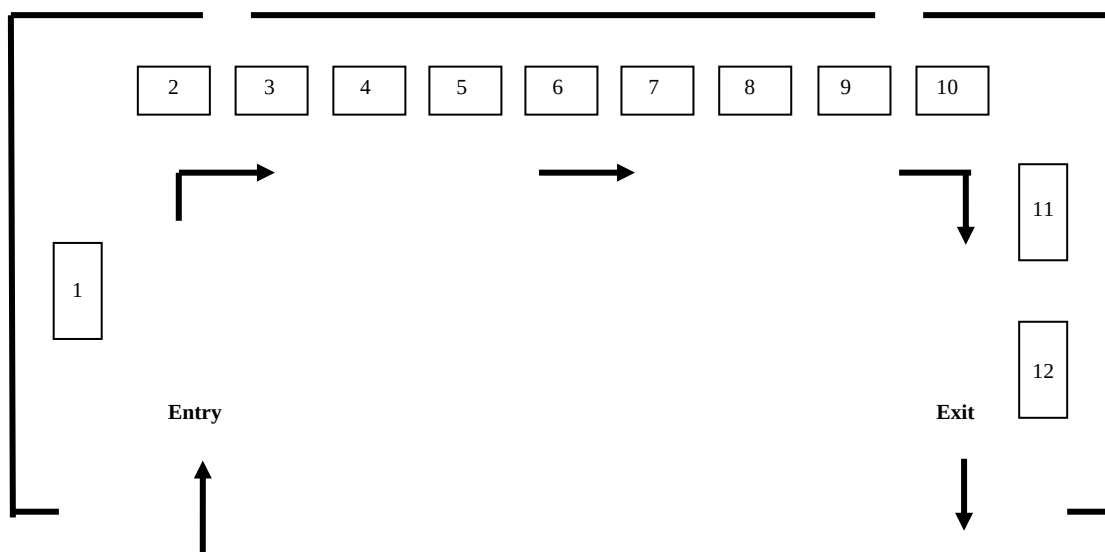
CAC : Combined Assistance Centre

LCC-1 : Local Command Centre-1

LCC-2 : Local Command Centre-2

DETAIL SCHEMATIC PLAN OF UCC

- | | | | |
|----|------------------|-----|----------------------|
| 1. | Medical | 7. | OC Site and Officers |
| 2. | Commercial | 8. | Mechanical |
| 3. | Operating | 9. | Electrical |
| 4. | Safety | 10. | S & T |
| 5. | Security | 11. | Engineering |
| 6. | Public Relations | 12. | Telecom Centre |

DETAIL SCHEMATIC PLAN OF CAC

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

CHAPTER 17

Site Management Plan-II

Nominated officials from various departments arriving at site by arts/ARMVs form part of the Disaster Management Team. Officials representing each department are responsible to ensure that assigned duties of their respective departments are efficiently carried out. Senior officers of each department will also ensure that their work is synchronized with that of functionaries of other departments for quick rescue, relief and restoration operation.

17.1 MEMBERS OF THE DISASTER MANAGEMENT TEAM-

17.1.1 Disaster Management Team normally comprises members of following Departments-

- (i) Trained Railway men from Medical, Commercial, Safety, Electrical, S&T, & Mechanical, Engineering, Security, Personnel and other departments.
- (ii) In case of fire accidents, trained fire service personnel shall form part of this unit.
- (iii) In case of an accident on water body, divers and naval cadets will also be part of the team.
- (iv) In case of sabotage or bomb explosion, bomb disposal squads and
- (v) GRP/Local Police will also be involved.
- (vi) Various rescue unit shall accompany ARMVs, ARTs or move by road as quickly as possible

17.1.2 Officer-in-charge of Site (OIC Site):

On arrival of ARMV at accident site DRM shall take over as OIC Site from the senior-most officer of the accident involved train. On arrival of 1st Special train carrying GM and other HQ Officers, GM shall be OIC Site. In the absence of GM, the senior most officers shall be OIC Site. He will be responsible for forming Core Groups as required and direct them to carryout efficient rescue, relief and restoration operations.

17.1.3 Rescue, Relief and Restoration Operation:

DM Team on arrival by ARMVs and ARTs shall undertake following actions:

- (i) Video coverage of accident site and Crowd Control for Law and Order.
- (ii) Rescue operation.
- (iii) Clearance from State police for restoration where required.
- (iv) Relief operations.
- (v) Installation of Communication Network.
- (vi) Preservation of Clues and Evidence.
- (vii) Media Management at site.
- (viii) Salvage operation.
- (ix) Restoration operation.
- (x) Lighting arrangements of accident site (if night, will be required first).

17.1.4 Photography

Prior to starting restoration work at an accident site, divisions should undertake suitable video film coverage to the extent feasible. Still photography by digital camera should also be undertaken extensively for its obvious advantages. The photograph should be taken from a vantage point and from as many angles as possible so as to give a bird's eye view as also close up photographs. Such photographs should clearly indicate:

- (i) Severity of the accident.
- (ii) Illustrate the damage to P.Way, Rolling Stock, Signal, OHE and other structures and equipments.

- (iii) Separate set of photographs to be taken to preserve clues and evidence of sabotage if suspected.
- (iv) Victims and unidentified bodies should also be extensively photographed as detailed in (15.2.1) (xii) below.

17.2 GENERAL

For efficient Disaster management, responsibilities of various departments are to be executed by deputing responsible officers and supervisors. Important duties of such officers/supervisors are enlisted as follows:

17.2.1 OIC Site

- i. Ensure setting up of UCC, CAC and LCCs at the earliest.
- ii. Collect information from OIC Site of IAT.
- iii. Take stock of the situation and plan for efficient rescue operation.
- iv. Estimate quantum of assistance required for each department from:
 - Within the division,
 - Adjoining zones
 - Adjoining divisions of NWR Rly
 - Non-Railway agencies.
- v. Local resources to supplement available Railway resources.
- vi. Ensure that duties of various functionaries of different departments as laid down in NWR's Zonal DM Plan are carried out.
- vii. Ensure co-ordination among all departments for efficient rescue, relief and restoration operation.
- viii. Ensure information to SP Police and District Magistrate.
- ix. In case of sabotage, direct RPF to obtain quick clearance from State Police.
- x. In case of serious explosions or fire, clearance from Controller of Explosions is to be obtained.
- xi. Give prima facie cause of the accident along with forecast of expected date and time of restoration.
- xii. Ensure timely information on the progress of rescue, relief, and restoration work with following details:
 - (a) Number of coaches searched.
 - (b) Number of bodies identified.
 - (c) Number of injured passengers recovered.
 - (d) Number of coaches dealt with.
 - (e) Nature of injuries to passengers.
 - (f) Supplementary assistance required, if any.
 - (g) Number of bodies recovered.
- xiii. Forecast for completion of each activity mentioned below should also be firmed up. These target dates and times should be communicated to all officers' and supervisors at accident site:
 1. Rerailment
 2. Track fitness
 3. Points and crossings
 4. Clearance of section
 5. Movement of first train

17.2.2 Duties of Divisional Railway Manager

- (i) Ensure that functionaries of different branches at the accident site carry out duties assigned to them as per Zonal and Divisional DM Plan
- (ii) Co-ordinate with Divisional Emergency Cell regarding assistance required.
- (iii) Co-ordinate with Civil Authorities especially with regard to :
- (iv) Requisition of buses from State transport authorities, with Loco Pilots for round the clock duty.
- (v) Arrange waiver of Post Mortem formalities.
- (vi) Arrange positioning of Municipal Officer in the CAC for issuing of Official Death Certificate.

17.2.3 Formation of two teams at accident site for round the clock working:

- (i) At the accident site, departmental officers available from both HQ and division shall be formed into two teams for round the clock working in 2 shifts, preferably 8hrs. to 20 hrs. and from 20 hrs. to 8 hrs.
- (ii) PHODs/CHODs shall be available on duty during the day time.
- (iii) PHODs/CHODs shall take on the spot decision regarding composition of the team for night site shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.
- (iv) Branch Officers shall be available on duty during the day time.
- (v) Branch Officers shall take on the spot decision regarding composition of the team for night shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.
- (vi) Similarly, supervisors available from both HQ and divisions shall also be put in two teams.

17.2.4 Duties of Operating Department

Immediately after getting the information.

- (i) All sectional TIs and Supervisory SSs should be directed to reach the accident site by first available means.
- (ii) Similarly additional RG/LR staff from the section should be sent to adjacent stations on either side so that additional shunting work can be done.
- (iii) Since considerable amount of shunting is required to be performed at adjoining stations, 2 traffic supervisors in 2 shifts should be posted at adjoining stations on each side.
- (iv) Ensure that special trains are sent into the accident affected block section according to the sequence.
- (v) Ensure proper marshalling of crane while proceeding to the accident spot in the block section.
- (vi) Ensure that Engineering vans of the ART are placed nearest to the accident site for this purpose; Engineering van/wagon should be placed closest to site of accident by sending it in pushing condition.
- (vii) Ensure prompt clearance of stranded passengers at the site in coordination with the Divisional Emergency Cell.
- (viii) Regarding running of special trains, keep in touch with Divisional Emergency Cell and give requirement from site

17.2.5 Duties of Safety Department

- (i) Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed till police clearance is received.
- (ii) Ensure that video/still photographs by digital cameras are taken as required.
- (iii) Ensure that joint measurements, observations are recorded in the prescribed proforma before restoration work begins.
- (iv) Ensure that unaffected rolling stock is moved away from the site and thereafter stabled at convenient location for further examination during accident inquiry.
- (v) Ensure that evidence of train staffs, station staff and public are recorded on the spot.
- (vi) Addresses of passengers willing to give statements later, should also be obtained.
- (vii) Ensure that special trains are sent into the accident affected block section according to the sequence.

17.2.6 Duties of Medical Department

(i) Main functions

Main functions of the Medical department can be broadly classified as:

- a) Taking an initial round of hospitals and assessment of situation.
- b) Taking out injured passengers from accident involved coaches.
- c) Attending to injured passengers and giving them First Aid.
- d) Preparing list of injured passengers.
- e) Classification of their injuries.
- f) Transporting them to hospitals and getting them admitted.
- g) Post admittance hospital care of the injured.
- h) Dealing with dead bodies.

(ii) General

- a) Ensure collecting blood and urine samples of train crew in case the same is necessary.
- b) Organize as many road ambulances as possible at the accident site.
- c) Data Bank of Divisional DM Plans has names, telephone numbers and other details of hospitals near the accident site. They should be contacted on phone for sending road ambulances along with team of doctors.
- d) Set up Medical Counter in UCC and CAC for passenger assistance.
- e) Set up First Aid Posts in LCCs.

(iii) Site Management

Leader of Team 'A' (Normally CMS/MS In-charge of the Division) would take control of the site, co-ordinate relief measures and distribute duties amongst doctors available as detailed below;

- a) Different teams and groups will be formed for discharging various duties of the Medical department as detailed in Section (7.5) above. Each should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.
- b) One group of doctors will take a round of various hospitals where injured passengers have already been admitted. (Para 'iv' below).
- c) One group consisting of 4-5 teams of doctors and para-medics will taken out injured passengers and dead bodies from accident involved coaches. (Para 'v' below).
- d) One team will attend to injured passengers and give them First Aid and other medical treatment. (Para 'v' below).
- e) One team will prepare list of injured passengers, note down details of their injuries and classify them. (Para vii & viii below).
- f) One team would be in-charge of transporting injured passengers to hospitals and getting them admitted. (Para 'ix' below).
- g) One team would be in-charge of post admittance hospital care of the injured (Para 'x' below).
- h) One team will deal with dead bodies after these have been extracted from coaches. They will prepare a list and arrange for their preservation (Para 'xi' & 'xii' below).
- i) In case sufficient doctors are available then more groups should be formed for rescue operations (Para 'v' below).

(iv) Taking an initial round of hospitals

- a) Separate doctors will be deputed to visit each hospital where injured passengers have already been shifted.

- b) One commercial officer will also accompany doctors and make a general assessment.
 - c) At the hospital, they should collect information about dead/injured persons, their name, age, sex, address, telephone no., name and telephone no. of relatives / friends, nature of the injury, etc.
 - d) These informations should be immediately communicated to CMS/MS at accident site by using local PCO/Cell phone etc.
 - e) Prepare a list of persons dead/injured already in hospitals in three copies by using carbon paper.
 - f) The list thus prepared is to be signed by Railway doctor on duty in the hospital. One copy is to be handed over to the Commercial Department.
 - g) 2nd copy to be kept with the doctor in charge as office copy and the 3rd copy to be given to paramedical staff to get multiple photocopies for further distribution.
 - h) One copy should also be sent to CAC for being fed into the Personal Computer provided in the CAC.
 - i) The initial list prepared should be updated at regular intervals, as and when any change occurs and communicated to the emergency control.
- (v) Taking out injured passengers**
- a) Maximum number of doctors should be deputed for this activity.
 - b) This group should consist of at least 4-5 teams. If numbers permit, more such teams should be formed.
 - c) Teams involved in rescue operation should ensure rapid access to all injured passengers.
 - d) They should take assistance of Mechanical/Engineering/RPF staff to extricate injured passengers.
 - e) Each team will join up with teams of Mechanical staff who would also be involved in extracting dead and injured from coaches.
 - f) Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another.
 - g) Coaches should be thoroughly searched including lavatory and vestibule portions before abandoning further search and moving on to the next coach.
- (vi) Attending to injured passengers**
- a) One team will be asked to provide medical treatment to injured passengers immediately after their evacuation from coaches.
 - b) Ensure stabilization of condition of injured passengers already taken out from coaches, before they are dispatched to hospitals by road.
 - c) In case of patients in critical condition where stabilization of condition at site is not possible, they should be moved immediately by road ambulance or shifted to ARMV.
- (vii) List of passengers**
- a) Collect list of injured passengers prepared by TS/TTEs and assess the situation.
 - b) Separate lists to be prepared coach wise.
 - c) The list should contain following details;
 - d) Found Conscious: Name, sex, age, identification marks, address, ticket number, originating and destination station.
 - e) If found Unconscious: Approximate age, sex, identification marks, ticket number and other particulars if relatives and friends are available.

- f) Once the preliminary list of injured passengers has been prepared, the list should be signed by the CMS/MS in-charge and a copy handed over to commercial department.
- g) The list of injured passengers will thereafter be updated periodically, as rescue and relief work continue and fed into the Personal Computer provided in the UCC/LCC.

(viii) Classification of Injuries

- a) Injuries are classified as under:
 - 'Grievous' injuries as defined below.
 - 'Simple', but excluding 'trivial' injuries such as abrasions or bruises.

Following are considered to be grievous injuries (as per section 320 of the Indian Penal Code):

 - Permanent privation of sight of either eye.
 - Permanent privation of hearing of either ear.
 - Privation of any member or joint.
 - Destruction or permanent impairment of powers of any members or joint.
 - Permanent disfigurement of head or face.
 - Fracture or dislocation of a bone or tooth.
 - Emasculation.
 - Any hurt which endangers life, or which cause the sufferer to be, during the space of twenty days, in severe bodily pain or unable to follow his ordinary pursuits. Injuries other than those defined above are considered to be simple injuries.
- b) Apart from injuries defined above, there may be cases where a passenger or trespasser receives only petty abrasions or bruises. These are of trivial nature and technically speaking should not be taken as injuries.
- c) "A Railway employee or a passenger or a trespasser shall be considered to be "injured" only when he/she is incapacitated following customary vocation for more than 48 hrs. Such injuries are classified as under"
 - Serious (including grievous injuries),
 - "Minor" or "Simple".
- d) Classify injured passengers into separate categories as grievous or simple.
- e) Inform Commercial department for arranging ex-gratia payment.
- f) Classification of injuries may be changed in the light of X-rays and other detailed findings after admission and should be intimated to UCC and LCC

(ix). Transporting injured passengers to hospitals

- a) One team will be asked to arrange transport of injured passengers to nearby hospitals.
- b) Ensure expeditious transportation of injured either to AMRVs or to nearby hospitals.
- c) Critically injured passengers should be transported by means of road ambulances and other by means of ordinary road vehicles.
- d) Commercial staff should also be associated with transfer of injured passengers to hospitals.
- e) Before doctors and supervisors leave the accident site for hospital duty, they should note down the DOT and mobile Telephone nos of the accident site, CMS, MS and other doctors at the site for quick communication.
- f) Doctors going to different hospitals should have separate vehicles.

- g) In case sufficient numbers of Railway vehicles are not available, they should hire taxis for their movement by withdrawing from station earnings.

(x) Post admittance hospital care

- a) One Railway doctor, one commercial supervisor and one welfare inspector should be deputed round the clock at each hospital.
- b) If large number of hospitals are involved 2/3 hospitals may be given to one doctor. In that case, the doctor, in consultation with CMS/MS, should station himself at the hospital where maximum no. of patients are admitted.
- c) Make an assessment about capabilities of the hospital to handle injured persons especially with reference to types of injuries they have suffered. Decide whether the patient needs to be shifted to other hospital with better facilities and then arrange to shift the patient.
- d) In case any injured passenger succumbs to his injuries in the hospital, then the doctor in-charge of that hospital should up date this fact to the medical counter at CAC.

(xi) Care for the Dead

- a) 20 no's of collapsible coffins which is available at each Divisional Hospital will be transported to the site by ARMV, road vehicles or train services as per need.
- b) Air-conditioned mortuaries available with Divnl. Hospital to be utilized to store at least six bodies.
- c) There is provision of Embalming Gun and Chemicals to ensure that bodies are preserved for reasonable time and if necessary, the bodies can be transported to Divnl. Hospital till claimed by relatives.
- d) Body bags which are available with Divnl. Hospital & ARME is to be utilized.
- e) In case of a major disaster the usual complement of medical staff in any ARMV is grossly inadequate for undertaking work of this magnitude. This should be augmented from nearby divisions/zones depending on the requirement.
- f) Adequate number of Safaiwalas and other health workers who have come to the accident site should be mobilized for this purpose.
- g) Dismembered bodies begin emitting foul Adour after two days. Carrying out this task under such circumstances becomes a real problem. Therefore, target should be to extricate all dead bodies within 24 hrs.
- h) Dead bodies should be dealt with coach wise, otherwise bodies taken out from different coaches get mixed up.
- i) Bodies taken out from coaches should be stacked at quite some distance from the track in front of respective coaches, in separate lots, coach wise. While this may slow down the work initially, in the long run it is more systematic since bodies don't get mixed up.
- j) Shift dead bodies from coaches to a nominated place at the accident site with the help of paramedical staff, SJAB, Scouts, Civil Defense personnel, other Railway staff and non-Railway volunteers available at site.**
- k) Ensure covering of dead bodies with shrouds.
- l) label (white cloth of 12"x9" written by marker pen) on body bag on each dead body on the chest just below the neck as below:

Date	Dead Body serial No.	
Coach No:	Age :	Sex :
Name :		

- m) In case of unidentified dead bodies, against the item name', it should be written as unidentified-1/unidentified-2, etc. Approximate age should be estimated from the appearance, such as between 35-45 years.
- n) 5 photographs preferably by digital camera should be taken of each dead body. Two should be close up of face from in front and sideways, third should be with the label visible as mentioned above and fourth and fifth should be of full length of the body.
- o) Each body should also be video photographed.
- p) After photographs have been taken, each body should be placed inside a plastic bag with zip having proper labeling system where some information is also to be provided.
- q) After this, bodies will be handed over to GRP or local police for safe custody.
- r) Take necessary steps to handle unhygienic condition that may arise due to decomposed/mutilated bodies.

(xii) Preservation of dead bodies

- a) Numbering and photography of bodies should be done even when relatives are on hand to claim the body.
- b) Arrangements have to be made for a more permanent location for them till such time as the next of kin arrive to claim these bodies.
- c) In all such accidents passengers are invariably separated from their belongings. As such in many cases there are no tickets or other Identification papers on their possession.
- d) This problem is further compounded in unreserved coaches where no Reservation charts are available.
- e) Identification problems come up in case of mutilated bodies also. In such cases, photographs are better means of identification.
- f) Arrange for hiring of a couple of big halls, for keeping bodies.
- g) Rooms should preferably be at a single location so that relatives do not have to go around from mortuary to mortuary.
- h) A large building having number of rooms would be ideal for storing them. Best option would be to take over a school building temporarily.
- i) Arrange to move dead bodies to nominated buildings being used as temporary mortuaries.
- j) Bodies should be neatly lined up with their numbers prominently displayed, and kept in different rooms, coach-wise.
- k) Notice Board outside the building should display the room nos where bodies extracted from a particular coach have been kept.
- l) These details should also be posted on a notice board outside each room.
- m) This will prevent unnecessary handling of bodies, which in any case would be in an advanced state of decomposition.
- n) For dead bodies whose relatives are not readily available and delay is expected, arrange for their preservation by dry ice. Etc.
- o) Procure following items from local market for dealing with dead bodies:
 - Shrouds
 - Coffins
 - Polythene bags
 - Dry ice
- p) Commercial staff should be put on round the clock duty in the building housing the temporary mortuary for guiding relatives as and when they come. Details of medical preparedness are given in chapter 19 department wise blue print under heading medical department

17.2.7 Duties of Commercial Department

(i) Main functions of the Commercial department can be broadly classified as:

- a) Providing beverages and catering to injured and uninjured passengers through IRCTC.
- b) Initial round of hospitals and assessment of situation.
- c) Preparing list of injured passengers.
- d) Assisting transportation of injured passengers to hospitals and getting them admitted.
- e) Payment of ex-gratia to injured and next of kin of dead.
- f) Dealing with refund and claims compensation formalities.
- g) Taking charge of luggage and consignments.
- h) Assistance in post-admittance hospital care of the injured.
- i) Taking care of relatives.

(ii) General

- a) Before Sr. DCM proceeds to accident site he should arrange withdrawal of sufficient cash from station earnings.
- b) At the accident site, handpicked commercial supervisors should be deputed for manning commercial counters in UCC and CAC.
- c) Each commercial counter in CAC is to be manned by one group as detailed in Chapter 12, Sec-6(six). Co-ordination with other depts. during the process of salvage is must.

(iii) Withdrawal of cash from station earnings

- a) In order to meet accident related expenditure, Officers can withdraw money from station earnings duly following the procedure incorporated in **Commercial Manual Vol. II Rule No.2425**.
- b) Departmental expenditure necessitated for floods, accidents or earthquakes, etc.
- c) Ex- gratia payments to persons involved in train accidents.
- d) Procedure and account as detailed below should be followed (Para xi & xii below).

(iv) Hiring of Vehicles

- a) A large number of road vehicles are required at an accident site for following purposes:
 - Taking injured passengers, doctors and other important officials to hospitals.
 - Clearance of uninjured passengers.
 - Taking dead bodies to mortuaries.
 - Bringing men and materials, etc. to accident site.
 - Taking unclaimed luggage for being kept in safe custody.
 - Taking relatives to hospitals and mortuary.
 - Other miscellaneous work.
- b) For this purpose apart from whatever number of Railway vehicles may be available, extra road vehicles may be hired.
- c) Adequate number of road vehicles should be attached to CAC for taking relatives to hospitals, mortuaries etc.
- d). Nominated Railway staff to be attached to each hired vehicle round the clock (Even group 'D' would suffice), so that optimum use can be made of the vehicle.
- e). Buses from State transport authorities should also be requisitioned along with extra Drivers for round the clock duty.

- f). One Railway staff should be put in charge of each bus on round the clock duty, who will accompany the bus wherever it goes and bring it back in time (even group 'D' would suffice).
- g). In case hospitals are in different towns, then road transport buses should be put on fixed time round trip schedule for movement of relatives from CAC to various locations and back.
- h). All hired vehicles and requisitioned buses should have stickers pasted on their front and rear windscreens indicating 'RAILWAY ACCIDENT DUTY'.

(v). Catering arrangements

- a) Arrangements for supply of food and beverages to not only injured but also to other passengers of the accident involved train should be swiftly organized.
- b) Food and beverages should be supplied free of charge.
- c) These may be arranged from Railway sources or outside sources as necessary, including IRCTC or their contractors.
- d) To supplement Railway catering arrangements nearby dhabas and hotels should be contacted and arrangements made for opening up stalls at the site.

(vi). Clearance of uninjured passengers

- a) First of all, arrangements for water and food for stranded passengers should be made.
- b) Clearance of accident-affected passengers from accident site should be planned along with operating branch who will provide the empty coaching rake.
- c) Make announcement thorough PA system informing passengers regarding their clearance from site either by:
 - Front portion of the accident involved train.
 - Rear portion of the accident involved train,
 - Empty coaching rakes that have been brought to the accident site,
 - Road bridging that has been arranged.
- d) Arrange adequate coolies for carrying passenger's luggage while they transfer to the new train.
- e) In case of road bridging, arrange road transport to clear stranded passengers, record details of passengers dispatched and relay particulars to Divisional Emergency Cell.
- f) Senior-most official at site shall have powers to arrange conveyance for affected passengers free of charge by any available mode of transport and also incur expenditure for carriage of passengers' luggage, etc.

(vii) Preparing list of injured passengers

- a) Collect list of injured passengers prepared by TS/TTEs after confirmation by Doctors.
- b) Separate lists to be prepared coach wise by Medical department.
- c) This list should be fed into the Personal Computer available in the CAC.
- d) The list should also be e-mailed to the Divisional emergency Cell and Hq. Emergency Cell.
- e) The list of dead and injured that is initially fed into the PC will thereafter be updated periodically, as rescue and relief work continues.

(viii). Amount of Ex-Gratia payable

- a) The amount of ex-gratia relief payable to injured passengers or to dependants of dead is as under:
 - In case of death - Rs.15,000/-
 - Grievous injury - Rs. 5,000/-

- Simple injury - Rs. 500/-
- b) The amount of ex-gratia relief admissible to road-users who meet with an accident due to Railway's prima facie liability at manned level crossing gate accidents will be as under:
Accident Defined under section 124 of the act 1989 RB letter no. 2011/TC/III/27/29/Ex-gratia dated 26.07.2012
 - In case of death - Rs.50,000/-
 - Grievous injury - Rs.25,000/-
 - Simple injury – 5000/- (Given in **SOPs commercial matters**)
- c) Payment of ex-gratia will be made on the basis of categorization of their injuries made out by doctors at site.
- d) No ex-gratia payment would be admissible to trespassers, persons electrocuted by OHE and road users at unmanned level crossings.
- e) Ex-gratia payment should also be made to Railway staff killed or injured by a moving train while performing their duty, for example, gangman working on track run-over accidentally by a moving train.
- f) Ex-gratia amount is to be paid in cash.
- g) In case of injured passengers, ex-gratia should be paid to the injured passenger himself or in case he is too ill, to his relative in his presence.
- h) In case of death cases where relatives identify and claim the body, following precautions are to be taken:
 - Photograph the face of the body from in front and from the side.
 - Photograph the person taking the ex-gratia payment.
 - Record the relationship of the person claiming the body along with details of proof, if any.
 - In case enhanced ex-gratia is announced by the Hon'ble MR. Then the enhanced amount should be paid by cheque by Accounts department.
 - Ex-gratia paid is not to be adjusted against claims compensation payable as decreed by RCT subsequently.
- i) Payment should be arranged preferably on the spot by a senior scale officer nominated by GM after making such enquiries as can be reasonably made on the spot after immediate needs by way of medical attendance etc., to injured persons have been attended.

(ix) Refund and Claims Compensation

- a) Refund of fares must be granted in the CAC for unfinished journey as per rules.
- b) Injured passengers and next of kin of deceased passengers must be supplied with blank claims compensation forms along with Claims Booklet explaining complete procedure.
- c) Photocopy of a filled up Claim Compensation form may also be given along with the blank form so as to help them in filling it up.

(x) Luggage and consignments

- a) As and when unclaimed luggage and personal belongings are taken out from coaches, a list should be made coach wise, and each item should be tagged with coach no.
- b) A list of each item with distinguishing marks should be made.
- c) If possible, the cabin number inside the coach should also be indicated.
- d) Luggage claimed should be handed over on satisfactory proof of ownership.
- e) Unclaimed luggage and personal belongings of injured/dead passengers should be taken possession of for safe custody.

- f) Unclaimed luggage should be stored in a safe place, preferably, part of the some building/enclosure which as being used for preserving dead bodies.
- g) These should be stored in separate rooms coach wise so that it is easy for relatives to identify.
- h) A list should be displayed outside each room indicating the coach no. whose luggage is stored there.
- i) It is the responsibility of Commercial department to take charge of all unclaimed luggage etc. These should be taken over from the charge of RPF.
- j) Booked luggage, parcels and consignments available in SLRs, VPU's etc. should be taken out and sent by road to nearest Jn. Station for safe custody.
- k) Booked perishables goods available in SLRs, VPU's should be taken out and either auctioned at site or sent by road to nearest Jn. Station for being auctioned.
- l) RMS consignments on the train should be shifted for safe custody till Postal Authorities come and take over.

(xi). Withdrawal from station earnings

- a) Procedure In order to meet accident related expenditure, Officers can withdraw money from station earnings duly following the procedure incorporated in Commercial manual Vol.II rule No: 2425.
- b) Departmental expenditure necessitated by floods, accidents or earthquakes, etc.
- c) Ex-gratia payments to persons involved in train accidents.

(xii) Withdrawal from station earnings–accountal

- a) The withdrawal from station earnings will be against station pay order. The Officer withdrawing money from station earnings is personally accountable for its correct expenditure and submission of vouchers to the Sr. DFM through Sr. DCM of the concerned Division.
- b) Branch Officer of the concerned department shall be responsible for submission of monthly statements of the amount of money withdrawn from station earnings to Sr. DCM, who shall consolidate such withdrawal and submit a report to CCM and FA&CAO (T) accompanied with relevant supporting paid vouchers on the 1st week of the subsequent month.
- c) Executive officer concerned shall furnish full particulars of the amount withdrawn, details of payments made, reasons for the payment, the rate and period for which payment is made and the total amount paid with the acquaintance to Sr.DFM.
- d) Sr. DCM will compile a monthly statement of all withdrawals from station earnings of his division and send it to CCM and FA& CAO(T).
- e) Branch Officer shall be responsible for submission of vouchers against expenditure incurred out of the station earnings withdrawn within 15 days to the Sr. DCM who shall consolidate such withdrawal and submit to Sr. DFM of the respective Division, failing which the amount so withdrawn shall be recovered from the concerned officer's salary.

CHAPTER 18

Site Management Plan–III

18.1 DUTIES OF MECHANICAL DEPARTMENT

- (i) For discharging the dual responsibility of extricating injured passengers & dead bodies from coaches and toppling those coaches whose search has been completed, 2 separate groups will be formed at each end for purposes of 'search and rescue' and 'off tracking of coaches'.
- (ii) Once 4 ARMVs, 2 ARTs and 2 BD specials have arrived at the accident site from both ends, normally no more mechanical equipment will be required from anywhere else. The main work will then consist of using of these resources effectively and efficiently.
- (iii) Different teams and groups will be formed for discharging the dual responsibilities of the Mechanical department. Each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.
- (iv) One Sr. Supervisor should be in-charge of each team conducting search and rescue at the site. All such 'search and rescue' groups at each end of the accident site would function under directions of an AME.
- (v) Similarly, one Sr. Supervisor should be in-charge of each team working on 'off tracking of coaches' at the site. All such 'off tracking of coaches' groups at each end of the accident site, would function under directions of another AME. The second AME concerned would also be in-charge of the crane at that end.
- (vi) Take precautions in electrified section that power supply is switched off before commencing rescue/relief work.
- (vii) Use necessary safety equipment like hand gloves, helmet etc.
- (viii) If spillage of inflammable substances is suspected, then only cold cutting equipment should be used.
- (ix) In case of suspected sabotage, ensure minimum interference to clues. Save lives and extricate passengers after video and digital photographs have been taken.
- (x) Be cautious in using rescue tools like gas cutters, cold cutters, spreaders, hydraulic jacks etc. so that passengers trapped inside or buried under the debris do not get hurt.
- (xi) Ensure marshalling of ART according to site requirement before it is sent into the accident involved block section.'
- (xii) For efficient extrication of entrapped passengers take assistance of Medical/ Engineering departments.
- (xiii) Each team will join up with Medical teams who would also be involved in extracting dead and injured from coaches.
- (xiv) Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another.
- (xv) Road cranes of sufficient capacity should be arranged so that these cranes can start working from the centre while the 140T cranes could continue working from either end.
- (xvi) Trucks should be arranged for carrying BD equipment near to accident involved coaches, so that number of coaches can be simultaneously tackled and more work centres can be opened up.
- (xvii) Examine unaffected or re-railed rolling stock and certify their fitness for further movement.

18.2 DUTIES OF SECURITY DEPARTMENT (Details in Chapter 19)

Main functions of the Security Department can be broadly classified as:

- (i) Co-ordination with GRP and Local Police.
- (ii) Protection of luggage.
- (iii) Crowd management.
- (iv) Protection of Railway property.

18.2.1 Liaison with Civil Police

- (i) In case of sabotage, liaison with Local Police & officials of District Administration and get early clearance.
- (ii) Clearance should be obtained as expeditiously as possible, for starting restoration work.
- (iii) Additional manpower should be requisitioned from local police officials and District Administration for purpose of crowd control.
- (iv) Exemption should be obtained from SP of the district for waiving off formalities of Post Mortem of dead bodies.
- (v) Obtain assistance from GRP and Local Police as and when required.

18.2.2 Protection of Railway property

- (i) Protect Railway consignments/goods/parcels till these are duly taken over by commercial department and dispatched to nearest station for proper disposal.
- (ii) Guard perishables goods till they are auctioned off at site or till they are dispatched to nearest station or being auctioned.
- (iii) RMS consignments on the train should be shifted to school building for safe custody till Postal Authorities come and take over the custody.
- (iv) Provide security for the cash withdrawn for payment of ex-gratia by the commercial department.
- (v) Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed.
- (vi) Ensure that no Railway staff tampers with any track fittings, or rolling stock parts.
- (vii) Anybody found moving under suspicious circumstances should be questioned.
- (viii) No Railway staff should be allowed to move about near the accident site with loose or piece meal equipment.

18.3 DUTIES OF ELECTRICAL DEPARTMENT

18.3.1 For discharging the dual responsibility of providing illumination at site, 2 separate units will be formed at each end of the accident site consisting of 'General branch' officers & staff

18.3.2 Once 4 ARMVs, 2 ARTs and 2 BD specials have arrived at the accident site from both ends, normally no more electrical equipment will be required from anywhere else. The main work will then consist of using of these resources effectively and efficiently.

18.3.3 Different teams and groups will be formed for discharging various duties of the Electrical department. Each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.

18.3.4 Site illumination

One Sr. Supervisor should be in-charge of each group working at the site. All 'General Services' teams at each end of the accident site would function under directions of one AEE

- (i) Senior most Electrical Officer at site would make a quick assessment of the electrical requirement of the site.
- (ii) This would be done keeping in mind the geographical spread of the site, the size of UCC, LCCs, CAC and any other requirement as necessary.

- (iii) Thereafter, he would assess the quantity of electrical fittings and generator sets available in ARMVs and ARTs.
- (iv) In order to set up adequate illumination facilities, all generator sets and lighting fixtures available in ARMVs and ARTs would be used.
- (v) First priority for lighting would be the accident site along the track where rescue, relief and restoration work is going on.
- (vi) Next priority would be given to lighting up of UCC, CAC and LCCs.
- (vii) Additional requirements of generators and lighting fixtures, if any, should be called for immediately from other Railway sources within the division, well in time.
- (viii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (ix) Officer at site should hire additional generator sets, lighting fixtures and arrange fuel etc. as required, from non-Railway sources available nearby. List of such sources are given in Divisional DM Plans.
- (x) Once generators and lighting fixtures have been set up, efforts should be made to tap local power supply from some nearby sources, if available.
- (xi) In case power supply is not available nearby and illumination has to continue on generator supply, then sufficient quantity of petrol and diesel should be procured and kept in stock.

18.3.5 OHE at site

One Sr. Supervisor should be in-charge of each group working at the site. All TRD teams at each end of the accident site, would function under directions of one AEE/TRD.

- (i) Immediately OHE should be switched off. In case OHE is to be brought down, the same should be done immediately so that working of crane does not get held up on account of OHE.
- (ii) In case slewing of OHE suffices for some sections, then the same should be done quickly to facilitate crane operation.
- (iii) Sr. DEE/TRD shall arrange movement of 6 Tower Wagons along with men and material from adjacent depots from both sides of accident site.
- (iv) In case more tower wagons are required these should also be requisitioned from other depots along with men and material.
- (v) An assessment should also be made of the extent of damage to OHE masts, and other equipment.
- (vi) Additional requirement of materials, if any should be called for immediately from other Railway sources within the division.
- (vii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (viii) In case other divisional sources are also inadequate, then sources from other zones should be tapped.
- (ix) Availability of OHE masts is a long lead item. Requirement of masts should be quickly worked out so that these can be moved immediately.
- (x) Ensure temporary portals are erected without delay.
- (xi) In case damage to OHE is extensive and a wiring train is considered to be more efficient, then the same should be arranged for from other zone after discussion with RE organisation.
- (xii) Ensure that the section is earthed before staff starts working near OHE.
- (xiii) OHE should not be charged until all staff, tower wagons, cranes etc. have cleared the block section.

18.4 DUTIES OF SIGNAL & TELECOMMUNICATION DEPARTMENT

Duty of S&T department consists of providing sufficient and reliable means of communication at the accident site and other work centers.

18.4.1 Types of communication facilities

For this purpose following types of communication facilities should be provided:

- (i) Satellite telephones, BSNL telephones.
- (ii) Mobile, in case the area is under mobile coverage.
- (iii) Walkie – Talkie sets, PA system.
- (iv) Railway telephones.

18.4.2 Locations

These should be provided at following locations:

i. UCC ii. CAC iii. LCCs iv. Hospitals v. Mortuary vi. Any other locations as decided

18.4.3 Numbers to be provided

- (i) Satellite telephones – 05 to be provided. 02 in UCC, 01 in CAC, 02 passengers.
- (ii) BSNL telephones – 02 in UCC, 03 in CAC and 01 in each hospital.
- (iii) Mobiles – as many as can be arranged in UCC and CAC. In addition to above at least 02 in each hospital.
- (iv) Walkie – Talkie sets – each functionary should be covered.
- (v) One 25W VHF set shall also be provided in UCC.
- (vi) One 25W VHF set shall be installed in a road vehicle so that mobile communication can be set up, upto a range of about 10 Km.
- (vii) Railway telephones – each functionary in UCC, CAC and LCCs should be covered.
- (viii) In RE area emergency sockets will be utilized for extending communication to the accident site and in non-RE area where 06 Quad cable is available the same will be utilized for providing communication.
- (ix) PA system – at UCC, CAC and LCCs.

18.4.4 Public Address System

- (i) Provide adequate number of PA system, Handsets.
- (ii) PA system should be provided in UCC, CAC and LCCs. These are to be used for communicating with passengers and for giving directions to Railway staff.
- (iii) For this purpose, additional PA systems may become necessary depending upon the requirements at accident site.
- (iv) Mega mikes available in ART will also be utilized.
- (v) Volume of PA system in UCC, CAC and LCCs should be so adjusted that announcements made over one of them reaches only those areas which are under its jurisdiction. It should not interfere with announcements being made by other PA systems.

18.4.5 General

- (i) Ensure availability of adequate copies of Disaster Management telephone directory containing important telephone numbers.
- (ii) Adequate number of Mobile Battery Chargers should be provided in UCC, CAC and LCCs along with number of spare batteries.

18.5 DUTIES OF ENGINEERING DEPARTMENT

Some duties have been detailed in Chapter 19 Section 19.11. Additional duties are as follows:

- (i) AEN/SEE(P.Way/Works) shall collect men, rescue tools and arrive at site by fastest means possible.
- (ii) Set up UCC, CAC and LCCs at the accident site.

- (iii) Assist Medical/Mechanical Department in rescue work.
- (iv) If necessary contact Army/Navy/Air Base and collect required personnel like Divers for rescue operation.
- (v) If necessary hire Private Road Cranes, bulldozers, Earth movers etc.
- (vi) 02 Engineering specials, one from each end, carrying engineering material and gang men from the section.
- (vii) Additional requirements of track materials, if any, should be called for immediately from other Railway sources within the division, well in time.
- (viii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (ix) 500 additional workmen are required who are to be moved from adjoining Divisions/Zones.
- (x) Each such Division sending assistance should move 250 men along with 5 artisans and 5 PWIs.
- (xi) One DEN and one AEN each should also move to the site of accident from each such division.
- (xii) Plan for coordinated working and movement of track machine for quick restoration in consultation with TRD and operating officials.

18.6 DUTIES OF PERSONAL DEPARTMENT

- (i) Sr. DPO shall proceed to accident site along with all Welfare Inspectors.
- (ii) Assist Doctors in collecting details of injured/dead and shifting them to hospitals.
- (iii) WIs shall be available round the clock in shift duty to look after the welfare of injured persons in each hospital.
- (iv) Issue complementary return journey passes to relatives for escorting injured and taking them back home.
- (v) Manning of personnel branch counters in CAC and discharge duties listed out for those counters.

18.7 DUTIES OF ACCOUNTS DEPARTMENT

- (i) Making available sufficient amount of cash for meeting emergent expenses.
- (ii) Opening of current account in a local bank and getting permission for over draft facilities so that large amount of cash is not required to be carried from far off stations.
- (iii) Issue of cheques for making of enhanced ex-gratia payments, if so announced at accident site by Hon'ble MR.

18.8 STAFF MATTERS

- (i) First problem is of identifying Railway personnel.
- (ii) They should be supplied with coloured armbands to be kept in ARMVs/ARTs.
- (iii) Adequate number of armbands, gloves and facemasks should also be provided in the ARMVs/ARTs.
- (iv) Second problem is of communicating with Railway personnel in the crowd.
- (v) Microphones/loud hailer provided in ARMVs/ARTs should be used both for crowd control as also for giving instructions to Railway personnel working at accident site.
- (vi) Once initial rescue operations have got underway, arrangements have to be made for water and food for Railway staff working at site. Contract arrangement should be made for supply of food.
- (vii) Spare coaches should be stabled at nearby stations where watering and charging facilities are available for stay of staff.

CHAPTER 19

Passenger Management

19.1 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 long 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 & WIs 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.

19.2 HOSPITALIZATION OF THE INJURED

- (i) General policy in case of Railway accidents in which casualties occur is that of rapid evacuation to Railway hospital after rendering immediate and necessary first-aid treatment.
- (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.
 - a) When there is no Railway or govt. hospital available within a radius of say 8kms, of the site of accident or.
 - b) When the attending doctor certifies that the treatment in private hospital is necessary in the interest of the patient.
 - c) Except where Railway doctor certified, such injured passenger should normally be eligible to the lowest class of accommodation in private hospitals where different scales are available.
 - d) 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, CMD should draw up a list of such private hospitals bearing in mind Railway and non-Railway hospitals in the vicinity.
- (vi) Power has been delegated to MS/ARMV-in-charge for settlement of charges to be paid for such cases for each class of accommodation.
- (vii) Payments to private hospitals under this para can be arranged locally by the Railways and Ministry of Railways approval is not necessary. (Extract of Para 701(1) & Para 712 of Chapter VII of IRMM and Para 1421 of Indian Railway Establishment manual and M.O.Rs letter No. MH59/MES/ 96/medical alt. 18.12.1959).

- (viii) When injured are admitted in non-Railway hospitals, Railway doctors should be deputed to these hospitals to render necessary assistance, including supply of medicines as required which may not be available in these hospitals.
- (ix) They should also carefully monitor the condition of injured and maintain an updated list with all details.
- (x) If more than one hospital is involved, apart from deputing doctors to individual hospitals, a Railway doctor should also be deputed to coordinate and maintain centralized updated position.

19.3 FACILITIES TO BE MADE AVAILABLE IN HOSPITAL

- (i) There should be a separate reception counter manned by commercial supervisor or WI 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 WI on duty at that hospital should carry a list indicating the name, address and telephone no of relatives as given by the patient, and whether they have been informed or not.
- (v) Arrangements should be made to inform the next of kin or a relative or friend of the deceased, in case identity of the person involved in accident becomes known.
- (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. There should be 02 mobile telephones for being taken to patients inside wards for making outgoing calls.
- (viii) Complete medical care of all passengers including payment of medical bills till their final discharge should be provided.

19.4 COMMUNICATION

- (i) STD Telephones/Mobile phones should be made available to passengers to communicate with their relatives.
- (ii) Railway Telephones available at adjoining Stations/Cabins/Gates shall be extended to the accident site.
- (iii) In case of passenger train accident mobile phones which will be kept at ART/ARME will be used by the stranded passenger free of charge.

19.5 ARRIVAL OF THE RELATIVES.

- (i) After a few hours the relatives of the dead/injured will start arriving.
- (ii) Adequate number of 'Display Board' should be available in the ARME/ART.
- (iii) They should be placed at a suitable place to lead the relatives to the CAC.
- (iv) Loud speaker should be used to direct the relatives to CAC.
- (v) Different counter should be opened to assist them as per Para 17.7.

19.6 CARE FOR THE RELATIVES.

- (i) Welfare inspector(WI)/Commercial Inspector (CI) should be available in the CAC to take the relatives to the hospital where the injured are admitted.
- (ii) Name and address should be collected from the 'Reservation Chart' after arrival of the relatives.

- (iii) If the injured passenger is required to be admitted in the hospital, WI/CI should accompany them.
- (iv) Vehicles to be hired to shift the injure/unconscious/relatives to hospital/ mortuary.
- (v) WI/CI must be present there till their relatives meet the injure/dead.
- (vi) WI/CI should assist them to fill up all the formalities.
- (vii) Shelters and readymade food should be arranged for the relatives of the dead/injure.
- (viii) If required the passengers to be shifted to hotel/dharmshala on rent.

19.7 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.
- (iii) Reservation chart, for locating the name.
- (iv) 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.
- (v) Counter for providing commercial supervisor or WI as escort along with a vehicle, for accompanying the relative and going around to various hospitals or mortuary.
- (vi) Railway doctor for issue of Medical Death Certificate.
- (vii) Govt. doctor for issue of Post Mortem Clearance, in case the same is necessary.
- (viii) Municipality official for issue of Official Death Certificate.
- (ix) Local police for issue of authority for handing over of dead body.
- (x) Claims counter – Payment of ex-gratia and issue of Claims Compensation Form.
- (xi) Counter for helping performance of last rites in case relatives decide to cremate the body there itself.
- (xii) Pass counter for issue of return journey pass.

19.8 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) In such cases Railways should render appropriate assistance to relatives for performing last rites.
- (iii) Information about performance of last rites of the deceased would be conveyed to the relatives & transport will be provided for carrying the body.
- (iv) Assistance will be rendered by WI and Commercial supervisor.

CHAPTER 20

MEDIA MANAGEMENT

20.1 OBJECTIVE

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

20.2 DUTIES OF PUBLIC RELATION ORGANISATION (PRO)

- (i) CPRO 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 Help line Enquiry Booths.
- (iii) CPRO, PRO and the entire PR organization should proceed to the accident site in the 1st Special train carrying GM and other HQ Officers.
- (iv) Number of photographers with digital cameras and video photographers should also be taken along to the accident site.
- (v) Both CPRO and 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) CPRO will organize Press briefings at fixed timings as detailed in Section 6 below.
- (viii) PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

20.3 SPOKESPERSON

- (i) Only GM, CPRO, Chief Emergency Officer in HQ Emergency Cell and DRM, PRO and Divisional Emergency Officer in Divisional Emergency Cell are competent to interact or give interview to press and electronic media.
- (ii) Apart from the above, any other Officer authorized by GM is competent to interact or give interview to press and electronic media.
- (iii) Railway's 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 Railway men shall express or voice any criticism, or express his personal opinion or views about the accident, at any point of time.

20.4 INFORMATION TO BE RELAYED TO PRESS AND ELECTRONIC MEDIA

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

20.4.1 Accident

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

20.4.2 Un-injured passengers

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

20.4.3 Dead and Injured passengers

- (i) Steps taken by Railways to render immediate medical attention.
- (ii) No. of injured passengers rescued.
- (iii) Breakup of their injuries:
- (iv) Grievous,
- (v) Simple,
- (vi) Trivial.
- (vii) Names of hospitals where injured are being treated.
- (viii) Approximately how many patients have been admitted in each of these hospitals?
- (ix) Names of injured passengers.
- (x) Communication facilities like Cell phones, STD phones provided at these hospitals.
- (xi) Payment of ex-gratia.
- (xii) Facilities offered to relatives of victims, including free pass for journeys.
- (xiii) Special trains being run for bringing relatives of dead and injured.
- (xiv) Number of dead bodies recovered and number of bodies identified.

20.4.4 Help line Enquiry Booths

- (i) Setting up of Help line Enquiry Booths.
- (ii) Details of Help line enquiry Booths as follows:
 - a) Stations where these have been opened.
 - b) Telephone Nos.
 - c) FAX Nos.
 - d) Interest address of ECoR on the Rail net website

20.4.5 Train Services

- (i) Details of train operation with regard to diversion, cancellation etc.
- (ii) Running of special trains for carrying relatives to the site of accident.
- (iii) Expected departure time of relatives special from the originating stations.
- (iv) Refund being granted in Help line Enquiry Booths for passengers whose journey have been interrupted

20.5 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 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., 02 coaches have been dealt with and so many numbers of bodies have been recovered. 08 more coaches are still to be searched and casualties are likely to go up.

20.6 PRESS BRIEFINGS AT ACCIDENT SITE

- (i) CPRO on arrival at accident site shall collect factual information from the OIC site and relay the same to Media personnel at site and also to Divisional Emergency Officer in the Divisional Emergency Cell. Thus, an on lines 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 CPRO's arrival at site. Subsequent briefings will be held according to the schedule given below.
- (iii) CPRO or PRO should be available in the UCC during Press Briefings.
- (iv) There should be fixed time for Press Briefings so that there will be 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 Hq. Emergency Cell and 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 minutes earlier. For example the media briefing held at 7:30 hrs. will convey all information as at 7:00 hrs on that date.
- (vii) On the first two days, there should be 3 media briefings per day. These should be scheduled at the following timings:
 - i. 7:30 hrs,
 - ii. 13.30 hrs,
 - iii. 19.30 hrs
- (viii) Thereafter, as per condition of the site, media briefing to be done.
- (ix) All media releases will be up loaded on the East Coast Railway website, and new page opened to give specific information with regard to the accident. The priority of information released to various media will be as under:
TV Channels, Agencies UNI, PTI, 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 conveyed 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

Department wise blue print

21.1 Disaster Management: Commercial Department

On receipt of the information from the Operating Emergency control, the level of commercial officers to proceed to site, CCM and in absence of CCM, CCM/PS & Catering will decide, depending on the gravity of the accident and advise the concerned officers as also the operating/Emergency control.

21.1.1 Management of Accident site

1. 25 TTE/TC and 25 licensed porters in uniform would be rushed to the site. TTEs working on the affected train and also from the affected Division and also from neighbouring Divisions would also be mobilized. TTEs from the Divisional Squad may be utilized. Whenever number of injuries is estimated to go beyond 50. Assistance must be sought for from adjoining Divisions. As a rough thumb rule, the scale of such outside assistance required would be from one division for every 50 additional injuries
2. Gas stoves and gas cylinders, 1000 mineral water bottles, provision for making puris, vegetables, tea etc. would be rushed to the site this will be arranged by the affected Division and provided by Catering/vending contractors or from outside market.

To supplement Railway catering arrangement nearly Dhabas and hotels should be contacted and arrangements made for opening up stalls at site.

3. Depending upon the need, accommodations in nearby Hotels/ Dharmashalas would be hired for accommodating passengers and for providing resting facilities to officials working at site, for the relief and restoration.
4. Adequate Commercial Inspectors should be available at the site to help the passengers, unhurt and injured as also to guide the relatives and friends of passengers and for making arrangements for payment of ex-gratia and dispersal of the passengers, etc.

(Copy enclosed vide Railway Boards Claims Circular No. 02/2014 No. 2014/TC-III/1/2/IRCT(C)/Ch.IVdt07.11.2014)

http://www.claims.indianrail.gov.in/claims_circular_02_of_2014.pdf

5. Sr. DCM/DCM would set up a Control Office to be manned round the clock at the site. Announcement would be made for registering the names of safe and injured passengers, and the list would be relayed to the Control offices, both at the Division and the HQ office for the displaying at the Enquiry Counters set up at the Stations as also for placing on the information networks. A copy of updated list of dead and injured would be supplied by the Medical Officers on Duty at site to the Commercial officers/Inspectors manning the control. The list would also be made available by the medical team to the Commercial control office at the division and relayed to the Enquiry counters/officers.

6. Alphabetical list of passengers on board with their current status must be available and displayed and enquiry counters for quicker dissemination of information. All Sr.DCM/DCMs shall arrange an alphabetical list of passengers from the nearest PRS location/Internet.
 7. Coolies and parcel porters may also be brought to assist in rescue operations
 8. Sr. DCM/DCM will ensure availability of sufficient cash for payment of ex-gratia/refund and other various arrangements including catering/ refreshment arrangements for stranded passengers
 9. Arrangements will be made for speedy disposal of stranded passengers of the train /trains involved in the accident, as well as trains regulated or terminated as a result of the accident in association with the operating Department. Road vehicles should be arranged on the basis of need Facilities for refreshment etc would be organized for the affected passengers. Commercial officials would ensure that refreshment sent with the relief trains or medical van or by other means are supplied to the passengers free of charge.
 10. RPF and commercial staff at the site of accident should coordinate their activities regarding safe custody and appropriate disposal of the luggage of the dead and injured passengers. Commercial staff should properly label and stack the luggage of the dead and injured passengers. This luggage should be guarded by RPF personnel and thereafter can be handed over to the rightful claimants.
 11. For payment of ex-gratia and to meet other expenses at the site, commercial inspector, authorised by the Sr. DCM/DCM shall withdraw adequate amount from the station earning of a nearby station and shall be available at site duly escorted by RPF personnel.
- (Copy enclosed vide Railway Boards Claims Circular No. 02/2014 No.2014/TC-III/1/2/IRCT(C)/Ch. IV dt. 07.11.2014)**
- http://www.claims.indianrail.gov.in/claims_circular_02_of_2014.pdf
12. Payment of ex-gratia at the site as also in the Hospitals will be arranged on the basis of the categorization of their injuries made out by the Railway Doctors at the site/hospitals.
 13. The site Control Office would maintain a log book and flow of information both incoming and outgoing would be recorded along with the time and names of the officers/staff who were given the message. They shall periodically update the divisional office commercial control as also the main Accident Emergency Control.
 14. Arrangements for refund as per rules would be made- (Copy enclosed of latest refund circular)
 - (i) http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Comm-Cir_2016/CC_36_2016.pdf
 - (ii) http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Comm-Cir-2015/CC_70_2015.pdf
 - (iii) http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Comm-Cir-2015/CC_64_2015.pdf
 - (iv) http://www.indianrailways.gov.in/railwayboard/uploads/directorate/traffic_comm/Comm-Cir-2015/CC_66_2015.pdf

- a) Near the site to passengers wanting to proceed by road/alternate means on their own.
- b) At Station where trains are-
 - (i) Delayed.
 - (ii) Diverted.
 - (iii) Terminated.

It should be ensured that all staff are well acquainted with the latest rules and are able to comply them

- 15. CCO will depute claim official to the assist the relatives of the injured/ Dead passengers regarding filing of claims for compensation

21.1.2 Control office at Headquarters and divisional level

Control offices have the following numbers.

Commercial Control	Telephone			
	FAX	Railway-Auto	P&T	CUG
Headquarter Office	0141-2725811	095-25230	0141-2725942	9001195995
JP Division	0141-2209501	095-44299	0141-2202915	9001199969
AII Division	0145-2625163	096-44210/142	NIL	9001196963
BKN Division	0151-2201250	097-44215/10	0151-2208222 0151-2201222	9001190706
JU Division	0291-2624125	098-44214	0291-2431646	9001198959

- a) Commercial Control Office in Headquarter and Division would be manned by officers, on round the clock basis. Dy. CCM/PM & HQ will manned control office. In his absence Dy. CCM/PS & Ctg. will come to the control office. If both are not available, then Dy. CCM (FM) will attend Thereafter, control duties will be assigned as per roster for manning the control office.

Sr. DCM / DCM / ACM will do this for Divisional Commercial Control.

- b) Commercial control at HQ and Division will maintain.
 - (i) Telephone and FAX Numbers of the accident site.
 - (ii) Names and phone numbers of Hospitals where injured and dead were admitted/shifted, and
 - (iii) Telephone and FAX Numbers of Enquiry offices that would have been set up at various Stations including at other Zonal Railway.
- c) Commercial control in the Headquarter office would constantly monitor the information relayed to the Division and other Railways regarding the dead and injured persons. Inquiry offices opened at important stations would be given this information and updated periodically.

21.1.3 Duties of TS/TNCR/TTE of the affected trains(s)

- a) Promptly report to Guard/Senior official present at site in making quick assessment of assistance required and carryout duties assigned.
- b) Ascertain if any doctor is available on train and seek medical assistance. Also collect Railway staff and volunteers on the train or near the accident site for obtaining assistance.
- c) Prepare list of dead and injured separately mentioning brief details of injury .
If doctor is available, the list should be classified as under:-
 - Dead.

- Grievous injury.
- Simple injury.
- Trivial injury.
- d) Details of the dead and injured including identification should be obtained from the reservation chart, ticket held (to and from) or co-passengers. The following details should be collected.
 - Ticket Numbers-Class
 - Coaches No. and its position from the engine.
 - Address of the passengers.
 - Nature of injury (Trivial/Simple/Grievous).
- e) Custody of luggage and other belongings.
 - In case of injury- The luggage of injured passenger should be kept by the TTE.
 - Incase of death-It should be handed over to GRP with full details and acknowledgements obtained.
- f) Record evidence of passengers.
- g) If some passengers are willing to give evidence later on, their names and addresses should also be recorded.
- h) Keep record of the number of dead injured already transported by local people.

21.1.4 Duties of all commercial officials

- a) Prompt transport of the stranded passengers.
- b) Adequate arrangements for refreshment and drinking water for passengers.
- c) Details of arrangement of ticket refund to passengers.
- d) Details of persons given first aid/medical aid.
- e) Details of persons given ex-gratia payment.
- f) Look after the comforts of the passengers.
- g) Evidence of passengers and other witnesses to collected recorded.
- h) Assist RPF in railway security duties.

21.2 Disaster Management: Electrical

A. Action Plan of Electrical Department of HQ in case of any Disaster.

1. Central emergency cell opened in HQ in case any disaster has been declared shall inform CEE and electrical control office in HQ for further passing the information to other electrical officers and other necessary action.
2. Electrical control HQ shall inform CEE, CESE, CECE, Dy.CEE/TR, Dy.CEE/Plg. & EM, Dy.CEE/HQ, Dy CEE(Chg.), SEE(P)/HQ and AEE/HQ & Secy. to CEE immediately thereafter on receipt of the information from Central Control.
3. CEE and in his absence CESE/CECE in that sequence shall immediately reach the HQ control office.
4. AEE/HQ & Secy. to CEE shall immediately reach in Electrical HQ control office and this shall be manned by Secy. to CEE, Dy.CEE/TR, Dy CEE(Chg.), SEE(P)/HQ and Dy CEE/Plg. & EM/HQ in shift duties till the restoration work is over.
5. AEE/HQ & Secy. to CEE shall also arrange transport for movement of officers and for this purpose all the electrical open line HQ and electrical construction vehicles will be at his disposal and command for use at the request of electrical officers in emergency.
6. CEE and in his absence CECE/CESE in that sequence shall proceed to the accident site.
7. Officers other than proceeded to the site as above i.e. CESE/CECE/CEE/ Dy.CEE/TR/Dy.CEE(Plg&EM)/Dy.CEE(Chg.) in that sequence shall man the central control in shift in co-ordination with Chief Emergency Officer in the central emergency cell.
8. Dy.CEE/Chg. in his absence Dy.CEE/ Plg. & EM shall monitor and fix the shift duties of officers and supervisors in electrical HQ control.
9. A group of two supervisors in the sequence given below will remain in shift duties round the clock to assist officers at site as well as at HQ till the restoration continues.
 - i) SSE/Chg.-I & SSE/Power
 - ii) SSE/Works & SSE/Chg.-II
 - iii) SSE/Store & SSE/Chg. - I
 - iv) SSE/General & SSE/TR-IEven the supervisors of electrical construction HQ unit shall be advised to be in readiness for shift duties in HQ control office. Only one group will be available at a time and in absence of the first group, the responsibility shall go to the second one and further in the sequence given above.
10. Assistance if required in reaching the site of disaster in the quickest possible time shall be arranged from the adjoining railways depending upon the location of the accident site for which Senior most electrical officer available in central control shall coordinate and liaise with their counter parts of adjoining railways on the phone nos., contact address etc. given in the Annexure.

B. Action by Division.

1. Sr.DEE shall proceed to accident site.
2. In the divisional control office, Sr.DEE/AEE of open line shall be the in-charge of coordination and in case of divisions where workshop are also attached i.e. BKN, JU and AII, the electrical officer from these workshops shall be deputed to perform shift duties in the control office as per programme by Sr.DEE open line. The electrical control of divisional control office shall immediately inform these workshop officers for keeping themselves in readiness and coming to divisional control at short notice.
3. Sr.DEE/AEE of the open line division, shall make all necessary arrangements for movement of DG sets and other lighting equipments at his disposal or even by arranging on hire through the first means of transport available etc. to reach at site for illumination of accident site, medical aid camp etc.
4. Sr.DEE of concerned division may requisition the vehicles and equipments of contractors engaged by him and for this purpose necessary assistance from the nearby construction unit or the nearing division contractor may also be asked for.
5. In case of electrified territory, Sr.DEE/TRD shall arrange movement of Tower Wagons along with men and material from adjacent depots from both sides of site of accident. In case additional Tower wagons are required these should also be requisitioned from other depots nearby along with men and material. Sr. DEE/TRD as well as AEE/TRD should also proceed to site of accident.

C. Action by adjoining divisions:

1. In case where assistance can be rendered more expeditiously by the adjoining divisions, Sr.DEE/DEE/AEE (TRD & Gen.) of open line of that division shall direct Sr. Subordinates to proceed to site of accident along with men and material by Tower Wagon (if available & in case of OHE breakdown) / the first available means of transport even by arranging road vehicles on hire within divisional powers.
2. Sr.DEE (TRD & Gen.) of the open line shall proceed to site of accident along with men and material. The next command i.e. DEE/AEE of the division and the workshop officer in that area available should stay in control for rendering timely assistance and coordination.

D. Arrangement at site.

1. An electrical control office would be set up near by the emergency control office at site which would be manned by a supervisor of the division round the clock. In order to set up adequate illumination facilities 20nos. Gen set and 20 nos. lighting fixture available in the ART would be used for not only lighting of emergency control office at site but even for giving power to communication facilities required at site and medical facilities set up at site where restoration, relief and rescue operation may go on.
2. The concerned divisional officer at site shall be authorized to hire an additional Gen. Set lighting fixture and other accessories as per the need of the site from any of the adjoining tent House/Commercial installation dealing with such equipments at the time of emergency, as per the provision in SOP as a sequel to HLC report on Disaster Management.

E. Additional requirement of T&P and OHE spares for Disaster Management

The following equipments and spares as indicated below are required at every divisional Hd. Qrs. of electrified division for restoration of OHE in the event of natural Disaster such as earth quakes, breaches, cyclones, dooming of trains, floods, bomb explosion etc.

a) Additional requirement of T&P for Disaster Management:

S. N.	Items	Qty. (in nos.)
1	Tubular poles	4
2	Ladders 11 M	4
3	Discharge rods(OHE)	8
4	Discharge rods(RC/Feeder)	2
5	Satellite Phone	2
6	Emergency Phone	2
7	Mobile Phone	2
8	Battery charger	2
9	Auxiliary transformer(4 kVA) with mounting arrangement	2
10	Honda generating set single phase-5 kVA cap.	2
11	Temporary lighting arrangement	
	1000 W Flood light	2
	500 W Flood light	4
	250 W Flood light	4
12	Tirfor 3 tonne	2
13	Pull lift 3 tonne	2
14	Come along clamp (Cat)	4
15	Come along clamp (contact)	4
16	Come along clamp (Al. spider)	4
17	Rail Jumper with clamp at both ends	6
18	Rail Jumper s extension with clamp at one ends	6
19	First Aid Box	2
20	C.W. cutter (36")	2
21	D-shackles (off sizes)	6
22	Twister cum bender 6"	4
23	Steel slings with eye at each end 19 mm dia.(off size)	10
24	C.W. Splicing Jig	2
25	Dekinker	2
26	Earth Augur	2

b) Additional requirement of OHE spares for Disaster Management:

S.N.	Items	Qty.
1	Bracket insulators	10 nos.
2	Stay insulators	10 nos.
3	9 T insulators	10 nos.
4	Bar insulators	4 nos.
5	Pedestal insulators	4 nos.
6	C/L assemblies for diff. implantation	10 nos.
7	Regulating equipment (3 pulley type)	4 nos.
8	Counter weight assembly	4 nos.
9	Droppers (off sizes) open ended	100 nos.

10	Jumpers 150 sq.mm	10 nos.
11	PG clamps off size	10 nos. each
12	Section insulators set	2 nos.
13	PTEE 'N' section assembly	4 nos.
14	Bonds (off sizes)	10 nos.
15	Isolator assembly	2 nos.
16	Contact wire	500 mtr.
17	Catenary wire	500 mtr.
18	Contact wire splice	5 nos.
19	Catenary wire splice	10 nos.

c) According to Para 20803 of ACTM, it has already been envisaged that each OHE depot should have all materials required for 3 kms of single line OHE and depending upon their experience, minimum and maximum may be revised from time to time. The quantity will cater to Disaster like earthquakes, cyclones etc. and should be arranged by all the electrified divisions.

Electrical TRD Department

1. Emergency action to be taken by TRD department

Action will be taken by TPC through first information from site to sectional control or after CB tripping & section does not hold good after second re-closure.

- As soon as TPC gets information about any abnormality (in case there is no CB tripping) either from site or ATNL, he will immediately open the feeding circuit breaker/BM of the concerned section for making OHE dead on both UP & DN lines. A Hooter controlled & sounded by ATNL is installed in TPC room may be taken care of in emergency situations.
- As soon as CB trips and does not hold on second re-closure, concerned TPC will immediately start segregation on SCADA system to locate faulty section. After locating faulty section. He/she will make the adjoining DN/UP healthy section dead to stop any movement of trains in either of the two directions (item no. 13 of para 5 Appendix VIII of ACTM Vol.II Part-II)
- The TPC will inform the concerned ATNL regarding abnormality and will try to get the details about abnormality. Further he/she has to ensure through ATNL that no movement of train take place from healthy and charged section to uncharged/dead section.
- TPC will then inform to the concern TRD maintenance depot & maintenance depot & supervisors, and shall ask them to be ready for movement to the site where abnormality has taken place. The information is then to be relayed to CTPC and he has to be told to reach in TPC.
- Further the information will be relayed to concerned ADEE/DEE and Sr.DEE/TRD. The TPC will further inform to the adjoining nearest depot to get ready for movement or any OHE gang available in the section at that point of time. The OHE staff shall be informed about the location and shall be directed to site of abnormality by a road vehicle/truck.
- The Tower wagon based at concerned depot to be moved on priority. Tower wagons stabled in adjoining depots shall also be moved on priority so that it reaches the site from other end.
- The OHE supervisor, who reaches first at site will survey the site, assess the damages and will convey the status to TPC. Depending on this information the reinforcement if any required, movement of adequate T&P and material/equipment shall be arranged by TPC.
- In case of any OHE breakdown or breakage of OHE wires takes place, the area around it should be cordoned off, so that no one gets injured.
- If there is a case of an electrocution, no attempt to rescue an electrocuted person be made until it is assured that power supply has been cut off to the effected line. Call for medical assistance. In the meanwhile, after the injured, if any, has been separated from the OHE wires, he shall be given first aid.

2. OHE at site

One Sr.Supervisor should be in-charge of each group working at the site. All TRD team at each end of the accident site, would function under directions of an AEE/TRD.

- (i) In case OHE is to be brought down, then the same should be done immediately so that working of crane does not get held up on account of OHE.
- (ii) In case slewing of OHE suffices for some sections, then the same should be done quickly so that working of crane does not get held up on account of OHE.
- (iii) Sr.DEE/TRD shall arrange movement of 6 Tower wagons along with men and material from adjacent depots from both sides of accident site.
- (iv) In case more tower wagons are required these should also be requisitioned from other depots along with men and material.
- (v) As assessment should also be made of the extent of damage to OHE masts, and other equipment.
- (vi) Additional requirement of materials, if any should be called for immediately from other railway sources within the division.
- (vii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (viii) In case other divisional sources are also inadequate, then sources from other zones should be tapped.
- (ix) Availability of OHE masts is a long lead item. Requirement of masts should be quickly worked out so that these can be moved immediately.
- (x) Ensure temporary portals are erected without delay.
- (xi) In case damage to OHE is extensive and a wiring train is considered to be more efficient, then the same should be arranged for from other zone after discussion with RE organization.
- (xii) Ensure that the section is earthed before staffs start working near OHE.
- (xiii) OHE should not be charged until all staff, tower wagons, cranes etc. have cleared the block section.

3. Mobilization of Officers:

- Section TRD officers (JS/SS) will proceed to the site of accident by the first available means of transport.
- Sr.DEE/TRD will proceed to the site of accident by first available means of transport, in case of major accident and casualty involved. In the absence of Sr.DEE/TRD, looking after officer will proceed.
- One Electrical officer of respective branch in control office shall co-ordinate with the site and arrange for supplemental assistance.

4. Setting up of Emergency TRD control

TRD Supervisors (TPC's) always manned in emergency control of TRD round the clock.

5. Mobilization of staff and material:

Accident in own division

In case of accident within division two nearest depots one from either side out of the following will move by Tower wagon/Truck to the site immediately depending on the location of the site.

Supervisors, staff, TW/Trucks of the adjoining depots may be sent to the site of the accident, if required depending upon the assessment of work involved for restoration.

- **Accident in adjoining Division/Railway**

In case of accident in adjoining divisions, SSE/TRD along with TW/Truck and staff will be sent on demand/requirement. In case of more assistance, officer manning the TPC will issue the necessary instructions.

6. Emergency Sockets:

Emergency sockets are provided at an interval of each kilometer Near TSS/SP/SSP, isolator, Insulated overlap etc. Using these sockets communication can be made with TPC. Further TPC control phones and Railway Auto Phones are available in ASM chamber of each station in electrified area.

7. Emergency Sockets:

A. Action by TPC

The TPC of the division should immediately repeat the weather / cyclone warning message telegram verbatim on control telephone to all concerned AEE, OHE/PSI Depot in-charge of the section likely to be affected for taking adequate steps as to be in readiness for meeting nay eventualities, and then circulate the contents of the telegram to the officers concerned in Divisional Headquarters office. The TPC shall always be in a state of readiness to take quick and prompt action to tackle the situation. He will keep continuous liaison with the field officials, headquarters officers, apart from the neighbouring Divisions for seeking help as the circumstances warrant.

The AEE will be in their respective headquarters. Their further movements depending upon the damages caused to OHE/PSI installations due to cyclone will be guided by Sr.DEE/TRD.

All Sr.Supervisors and Officers of the TRD Branch should also keep the TPC informed of their movements. These instructions also apply to other key personnel.

B. Action by OHE/PSI Depot In-charge

(a) The OHE/ PSI Depot in-charge on receipt of weather/ cyclone warning shall be in a state of readiness to meet any emergency for arranging emergency staff to be vigilant and be available in Headquarters. They shall be readiness to move at a short notice.

(b) BD Vehicles i.e. Tower Car, Wiring Train, Lorries and all breakdown tools, shackles and ladders, generator sets, portable food lights etc. shall be kept ready for movement at any instant.

(c) OHE material like conductors, insulators, fittings shall be kept ready.

21.3 Disaster Management: Engineering

21.3.1 Action Taken during Accident/Disaster

i. Mobilization of officers and staff

The concerned HOD will proceed to the site of accident by road/the special train organized for this purpose. Sr. DEN/DEN concerned will proceed to the site of accident by ART/Road. In the absence of Sr. DEN/DEN, DEN of the adjoining section will proceed to site. It is envisaged that AEN and PWI of the section would have already reached to the site of accident. In cases where the PWI and AEN are headquartered at the division base of ART they should move along with staff by ART. At least, 1 SSE/Works, 1 SSE/Bridge (if available) of the division should reach at site as decided by Sr. DEN/DEN. Dy. Chief Engineer/SEN (Bridge Line) will invariably move along with their Bridge units to the sites of the serious accident involving bridge.

ii. Setting up of Emergency, Engineering Control

a. **Divisional Engineering Control:** Preferably, senior scale officer should man the Divisional Engineering Control round the clock. For this purpose, other senior scale and JA grade officers available in the Divisional headquarters will work in shift duties. The coordination will be done by the senior most Sr. DEN/DEN available in the Divisional headquarter control are as under:

b. **Headquarter Engineering Control:** It will be manned by Dy. Chief Engineer (Track), Dy. Chief Engineer (Planning) and Dy. Chief Engineer (Works) in three shifts. The stand by officers will be as under:

Dy. Chief Engineer (Track)	Dy. Chief Engineer (TS)
Dy. Chief Engineer (Planning)	Dy. Chief Engineer (D)
Dy. Chief Engineer (Works)	Dy. Chief Engineer (G)

The emergency control should start functioning within half an hour on receipt of the information. **Railway Telephone No. 45447**

iii. Mobilization of work force and material.

a. Adequate number of gangmen, blacksmiths and supervisors depending on the gravity of accident and as per site requirement shall be arranged by the division. For this purpose, labour special will run from the specified destination as decided by the Divisional/HQ Engineering Control.

b. Additional gangmen, supervisors and officers (depending upon actual requirement) will be moved from the other divisions if decided so by HQ.

c. Approximately 400m of rails, sleepers and fittings and one set of 1 in 12 and 1 in 8.5 turnouts are available in the ART. The Mechanical and Operating departments will ensure that the part 'C' of ART (consisting of additional Engineering material wagons) shall follow the ART. The additional half km of matching materials and one set of 1 in 8.5 and 1 in 12 turnouts shall be kept in the Track Depot of the division. This material should be loaded with 3 hours and dispatched to the site of accident. **This will be ensured by the SSE/Pway Track Depot and Divisional Engineering Control.**

d. Mechanical and Operating Departments will ensure that Engineering vans of the ART are to be placed nearest to the accident site. For this purpose, Engineering van/wagon need to be placed in pushing condition closed to the site of accident.

e. JCB, tractors, dumpers etc. available with the ballast depot contractor or otherwise should be arranged depending upon the site requirement.

f. The bulldozer/earth moving equipment available at ARMY establishment will be moved by road/special train if required.

- g. The ADRM/Sr. DEN/Co in Division will request the concerned authority (Army/State Government department) for bulldozer/earth moving machinery in the area.
- iv. **Setting of tentage and drinking water facilities etc.**
 - a. One SSE/JE (Works) should be responsible for setting up of these facilities. He will move along with the sufficient staff for setting up of the facilities. He should set up of the tentage after taking out the tents and tarpaulin provided in the ART based on requirement of site. In addition, he should also contact the agencies, which provide tentage accommodation on payment.

The Bridge Line staff will assist in setting up tentage and above mentioned facilities. In case, bridge is not involved, there shall be sufficient temporary shelters and drinking water arrangements. Water tankers will be ordered at the site. About 10 folding chairs are also to be arranged. Dy. Chief Engineer/SEN Bridge Line will invariably move to the sites of the serious accident involving bridge along with restoration operations. Bridge unit will take with them sufficient equipment required for job.
 - b. Sufficient facilities for erecting temporary stage/scaffolding etc. should also be organized, if required at site.
 - c. Drawing sketch of site of accident: One SSE/JE Pway should be exclusively made in-charge of preparing sketch of site of accident. He should work under the direction of safety officer. He will also preserve the clues/evidences, if any, at the site of accident leading to cause of accident.
- v. **Assistance required from the outside agencies:**
The list of the following should be maintained by the Divisional Engineering Control.
 - i. List of contractors/agencies who can supply vehicle, Pway labour etc.
 - ii. List containing addresses and telephone no. of agencies in the nearby areas that provide tentage accommodation on contract.
 - iii. List containing addresses and telephone no. of agencies in the nearby areas that provide earth moving machinery like bulldozers, JCBs etc.
 - iv. List of army installations, state PWD and irrigation department officers along with their designations and contacts nos. and the type of help they can render at the time of disaster.

21.4 Disaster Management: Mechanical

21.4.1 Action at Headquarter:

- a. As soon as a disaster is declared by the Zonal Railway administration, CCR/HQ will inform CME, CRSE & CWE and CPCR/HQ will inform CMPE. CME along with CRSE will proceed to the site of accident by train /ART/Road or any other means depending upon the location and nature of disaster. In absence of CME, CWE will take charge.
- b. Following officers will manage the control by rotation. CWE/CMPE will also attend initially and thereafter monitor the situation continuously:
 - i. Dy.CME/C&W
 - ii. Dy.CME/D&R
 - iii. Dy.CME/Workshop
 - iv. Dy. CME/ Plg.

Stand by Officers: SME/Diesel, AME/HQ

- c. CME/CWE/CRSE/CMPE will decide on the relief equipment required to tackle the disaster. Assistance from adjoining Railways would be called for if required. List of cranes and other relief equipment along with the particulars of controlling officers are given as Annexure -1.
- d. Assistance from workshops/Diesel Sheds if required would be called for both in regard to additional staff and equipment. List of commonly required equipment available in workshop/diesel sheds is attached as Annexure -2
- e. Dy. CME (Plg.) will make arrangement for the Vehicles in co-ordination with General Brach.
- f. The senior most Mechanical officer in control office will coordinate with Railway Board for any additional assistance/information.
- g. The workshop incharges will be informed by CWE/Dy.CME(W/S) and they will remain on alert for providing assistance as and when required. Similarly CMPE/Dy.CME(Dsl) will alert diesel shed incharges.

21.4.2 Action at Divisions:-

- a. The divisional CCR after getting information from traffic control about the declaration of a disaster will immediately mobilize the divisional resources such as the ARMV, ART, SPART and crane etc. as desired. He will also inform Sr.DME(C&W) of the division and seek further guidance.
- b. CCR and Sr.DME (C&W) will assess the additional requirement of resources which are to be supplemented from the adjacent divisions and Railways and order same in consultation with CME/CWE/CRSE/CMPE. CCR will have an update list of location of ARMVs, ARTs and cranes and their beats available with them all the times.
- c. One Mechanical officer will be available in the divisional control office for coordinating with the officers at the disaster/accident site and with Zonal Headquarter. He will organize additional resources of men and equipment from other units of division to the accident site as required.
- d. The ARMV/ART shall as far as possible be accompanied by Sr.DME (C&W)/(Power) of the division. The nearest JAG/SS Mechanical officer in diesel shed of the division/adjoining division depending upon the severity of accident would in addition be asked to move to the accident site.

- e. One Diesel Locomotive, preferably lie over power will be kept nominated by PCR/Div. round the clock and placed at suitable location for timely movement of ARME/ART/BD Crane. PCR/Div. will also arrange for crews for nominated loco.
- f. Divisional PCR will also arrange additional crews and powers for diverted trains in consultation with Chief Controller.
- g. Divisional CCR will maintain minute by minute log of events till restoration is over.

21.4.3 Accident Relief Medical Equipment Van

- a. Locations of ARMVs scale-1 are given in Annexure 3 (BG) & 4 (MG) along with their jurisdiction.
- b. One key of auxiliary van is available with the SSE (ART/ARMV)/ SSE (C&W) and other one with the station master in a glass fronted case.
- c. One key of medical van is with doctor incharge of the ARMV and other one with station master in glass fronted case.
- d. Most of the equipments are provided as per Railway Board norms.
- e. Keys of all locks inside the ARMV are also in duplicate. One set of Keys are with the Medical Officer In-charge of the ARMV and other set of Keys are kept in glass-fronted case inside the ARMV.
- f. The target time for turning out of ARMV is 15 minutes from the time of sounding of hooter or siren.
- g. SPARTs (based at RE and UDZ, BME, and allotted for CUR & JSM) are propelled by an in-built diesel engine and is capable of movement in both the directions.

21.4.5 Accident Relief Train:-

- a. ART's locations are given in the Annexure 5 (BG) & 6 (MG) along with their jurisdictions.
- b. Most of the resources / restoration equipments are provided as per Railway Board instructions.
- c. Breakdown keys are with the following officials:-

Engineering tool van –	SSE/SE Permanent Way
Mechanical tool van-	SSE/SE Mechanical
Generator Van -	SSE (Elect.)
- d. SPARTs (based at RE and UDZ, BME, and allotted for CUR & JSM) are propelled by an in-built diesel engine and is capable of movement in both the directions.
- e. Crane supervisor will ensure availability of adequate fuel and water in the crane all the time.
- f. On getting emergency call, the crane supervisor shall check and ensure:- Correct marshalling of crane according to site requirement.
- g. In case, road approach is faster, prevailing equipment may be moved by road as required.
- h. The target time for turning out of ART is 30 minutes by day and 45 minutes by night from the time of sounding of siren.
- i. Mechanical officer of control room will ensure quick returning of ART/ARMV to its based HQ after rescue operations

Annexure -1

ARTs/ARMVs of Foreign Railways adjoining to NWR

Rly.	Location & Div. of BG 140T Cranes	HRE Avail-able in ARTs	Location & Div. of ARMV		HRD Availa-ble in ARMVs	Adjoining Divisions of NWR		Contact Details of CME
			BG	MG		BG	MG	Contact no.
WR	KKF (ADI)	Yes	ADI (ADI)	SBI (ADI)	Yes	AII, JU	AII	Rly. (090) 22150 (O) 21383 (R) P&T (022)22015963 (O) M- 9004490400
	-	-	PNU (ADI)	-	Yes	AII	-	
	RTM (RTM)	Yes	COR (RTM)	-	Yes	AII	-	
NR	DLI (DLI)	Yes	DLI (DLI)	-	Yes	BKN, JP	-	Rly. (030) 32410 (O) P&T (011) 23387114 (O) M-9717630400
	BTI (UMB)	Yes	BTI (UMB)	-	Yes	BKN	-	
WCR	KOTA (KOTA)	Yes	KOTA (KOTA)	-	Yes	JP, AII	-	RLY. (015) 54300 (O) 54040 (R) P&T (0761)2677076 (O) 2625028 (R) M-9752415400
NCR	AGC (Agra)	Yes	AGC (Agra)	-	Yes	JP	-	RLY. (035) 23341 (O) 23342 (R) P&T (0532)2230219 (O) M-9794835400

Annexure-2

Workshop	Plants & Equipments			
	Truck with Capacity	Jeep/ Any Vehicle	Jack /with capacity	Road crane with capacity
AII (Loco)	1 of 09T	Innova- 1, Tata Sumo- 1 Qualis- 1, Jeep- 1	1 Set-20T 1Set- 25 T	1 of 10T
AII (C)	1 of 10T	Qualis- 1	2 Sets- 15T each	1 of 8T
BKN	2 of 13T each	Jeep- 1, Innova-1	4 Sets- 15T each	2 of 15T each
JU	2 of 06T each, 1 of 3.5T	Tata Sumo- 1, Qualis- 1	8 Sets- 15T each	1 of 3.5T
ABR	1 of 10 ton 1 of 06 ton	Tavera- 1, Tata sumo- 1	10 No.-35T each	1 of 10T
BGKT	1 of 3 ton	Tata sumo- 1, Jeep- 1	5 No.- 35T each 5 No.- 35T each	-
FL	-	-	5 No.- 25T each	-

Position of Plants and Equipments in Workshops & Diesel Sheds in NWR.

21.5 Disaster Management: Medical Department

The aim of hospital disaster management plan is to provide prompt and effective medical care to the maximum possible, in order to minimize morbidity and mortality resulting from any MCE.

The general policy in case of railway accidents in which casualties occur is of rendering **immediate and necessary first aid treatment at the site of accident and rapid evacuation.**

21.5.1 Duties of Medical Department:

- a. Ensuring that the doctors along with para medical staff and necessary equipment **reach the accident site by the quickest means available.**
- b. Advising the **Civil/Pvt./Military hospital in the vicinity** of the accident about the assistance required from them.
- c. Setting up of suitable treatment and dressing centers at the accident site for dealing with the injured.
- d. Ensuring **prompt removal of serious patients to the nearest hospital** for necessary treatment.
- e. Ensuring that a **railway doctor accompanies the injured persons** to the hospital to see that they are properly attended to.
- f. Keeping record of the progress of the injured persons in the hospital

21.5.2 On Receipt of Information:

- a. Control informs the casualty doctor about the accident.
- b. Casualty doctor informs the hospital in charge, CMD, Matron and all other doctors.
- c. The staff reports to the casualty and Team A and Team B are activated.
- d. Doctor in Divisional Control Room takes position from the site as to the extent of injuries and the arrangements required and keeps the casualty doctor informed.
- e. Team A proceeds to the accident site by ARME or ambulance.
- f. Team B remains at the hospital to make arrangements for receiving the injured.
- g. Inform the nearest hospital about the accident and assistance required.
- h. Maintain a record of all information received.
- i. At Control: from the list of passengers on the ill fated train contact any doctor on board and take his advice.
- j. On receiving more elaborate and accurate information about the extent of the casualties decide if more man power, medicines or equipment is required.
- k. Independent alternate communication through mobile phones between doctors at site control and CMD maintained.
- l. Call for assistance from neighboring division/zone if nature and magnitude of accident warrants it.
- m. Instruct the nearest St. John's Ambulance Brigade to send men with equipment, if required.

21.5.3 At Divisional Level- At Hospital/Health Unit Level:

For efficient and prompt management of accidents doctors and para medical staff of each division is divided into two teams.

I. Team A:

Objective is to render first aid and speedy evacuation of the injured from the accident to nearest hospital.

- a. On receipt of information of any accident from the control, the Casualty Doctor will inform the MD/CMS/ Sr. DMO (G), other doctors and Matron in the hospital.

- b. Team A will be headed by MD/CMS or in their absence Sr. DMO (G) and will immediately rush to the accident site by the first available means either by ARME, Ambulance or Road Mobile Van.
- c. All the members of Team A will reach Railway Station within 15 minutes during day and in 20 minutes in the night.
- d. On reaching the station the ARME I/C or team in charge will inform the SS/SM in written that the team is ready and get the ARME opened.
- e. During the journey the team members are assigned their duties.
- f. MD/CMS or senior most Medical Officer will be in charge and will coordinate with different agencies and departments involved in providing relief work at the accident site. He will also act as the Nodal Medical Officer and communicate various information and instructions to the control room.
- g. He will make an assessment if more assistance is required.
- h. ARME I/C will perform medical examination of crew and guard for intoxication and drunkenness and take blood samples for alcohol.
- i. On arrival will set up the following Posts:
 - i. Reception Post
 - ii. First Aid Post
 - iii. Resuscitation Post
 - iv. Surgical Post
 - v. Comfort and Dispatch Post
 - vi. Mortuary
- j. Sr. DMO (H) will be overall in charge of maintenance of hygienic condition at the accident site. He along with health inspectors and his team will carry out necessary disinfection and ensure availability of potable water and other comfort services at the site.
- k. He will also provide assistance in preparing record of the dead and injured persons.
- l. Keep a proper record of the injured along with their name, age, sex, home address, ticket number, two identification marks and details of injury.
- m. Ensure proper identification, preservation and care of the dead
- n. The injured will be segregated into grievous and simple at the reception post.
- o. Sr. DMO/Surgery and his team will attend the serious patients first and will shift them to the nearest Hospital where the required facilities are available.
- p. Minor cases may be shifted to ARME for medical treatment and comfort.
- q. Trivial cases will be given first aid at site and disposed off after complete documentation. The documentation for trivial will be separate from grievous or simple.
- r. One doctor will be nominated to visit the Govt./Private hospitals where the injured have been shifted to provide necessary assistance and documentation.
- s. Quick transmission of accurate information particularly the details of the dead and the injured.
- t. The team will disperse only after all patients have been attended, treated or shifted to various hospitals.
- u. The progress report shall be conveyed to CMD/CHD on phone daily and confirmation by dak.

Note:

1. All doctors will carry their emergency bags, torches, sufficient clothes and money for exigency for 2/3 days.
2. At the site the doctors will wear their aprons and arm bands. Other staff members will wear arm bands for easy identification.

21.5.4 Team B:

- a. Team B will consist of doctors, matron and para medical staff. They will not proceed to the accident site.
- b. Team B will be headed by the senior most doctor and will be responsible for preparing the hospital to receive casualties and set up emergency cell in the hospital.
- c. They will set up emergency cell in the hospital to coordinate and communicate with the site of accident, other division and the divisional / Headquarter control rooms..
- d. One doctor will sit in the divisional control room.
- e. They will request neighboring divisions to keep the medical team in readiness so that their services can be availed at a short notice, if required.
- f. They will liaison with other Govt./Private hospitals to be in readiness to receive and provide medical treatment to the injured, if required.
- g. If required, will move one or more ARME to the site even from neighboring division/zone.
- h. They will contact the local hospital (Govt. /Pvt.) near the accident site to provide medical assistance to the injured passengers.
- i. If required, send 2nd team of paramedical staff, Saint John's Ambulance Brigade will be sent to the site. Scouts and guides and Civil defense personal will be directed to the site and the railway stations to receive and transport the injured victims to the hospital.
- j. They will prepare the hospital to receive and provide medical treatment to the injured when they are shifted to the hospital from the accident site.
- k. Keep ambulance with doctor ready at the station to receive injured, if required.
- l. The team will keep the operation theatre in readiness.
- m. Make arrangement for blood transfusion, if required.
- n. Make beds available for the casualties.

21.5.5 Follow up action:

1. Once all the injured persons have been attended and serious patients shifted to hospital all doctors should sit together and tally their notes to prepare a statement of the total number of dead and injured along with the nature of their injuries.
2. All injured persons admitted in other hospitals should be attended daily for the first one week and their progress report sent to CMD/NWR.
3. Medical In charge of ARME should take immediate steps to recoup the medicines and equipment used during the accident.

21.5.6 Information to be maintained by Doctors:

The following information is to be maintained with the MD/CMS to help in settlement of claims:

- a. Details of the injured passengers and the dead ones.
- b. Nature of the injuries, whether Trivial, Simple or Grievous.
- c. Number of patients sent to other hospitals.
- d. Names and address of non-railway doctors who attended to the injured.
- e. Medicines and supplies received at the accident site and their accountal.
- f. CMD should be informed about the details of the injured at the earliest.
- g. Daily progress report of the injured persons to be sent to CMD. CMD in turn informs DG/RHS.

21.5.7 At Headquarter Level:

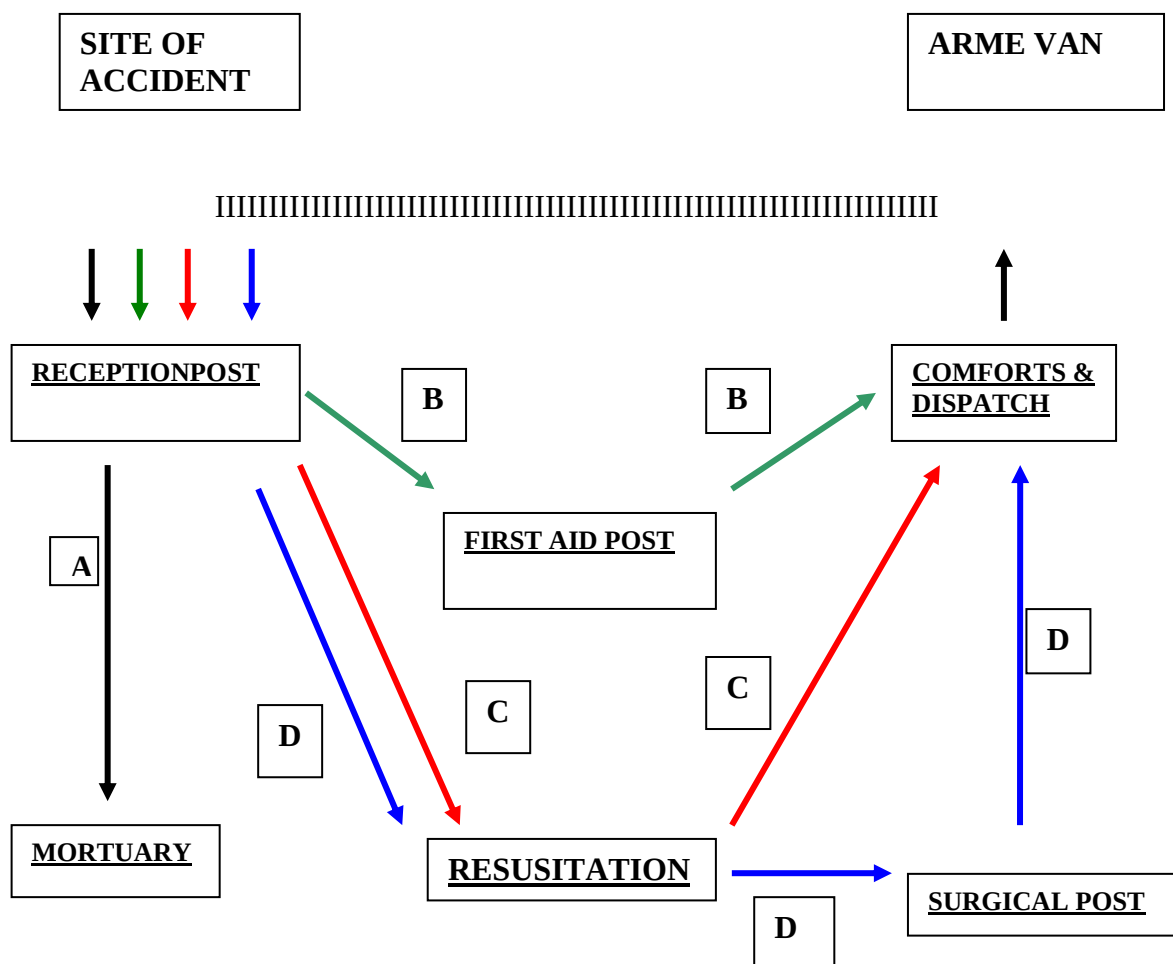
- a. As soon as information about any accident is received MD/CMS or in their absence Sr. DMO (G)/ Sr. DMO (H&FW) will inform to CMD/CHD.
- b. In case of any accident with casualties Dy.CMD (H&FW)/ACMD (T&A) will immediately proceed to head quarter control room and will coordinate with the divisional control room, site of accident and Railway Board.
- c. CMD or in his absence CHD will rush to the accident site. Dy. CMD (H&FW) or in his absence ACMD (T&A) will man the medical control in the headquarters.
- d. The medical control rooms at hospital, divisional and head quarters will be manned by doctors and supervisors on round the clock basis.
- e. Dy.CMD (H&FW) or ACMD (T&A) can call for additional medical officers, para medical staff and inspectors depending on the gravity of the situation.
- f. One additional emergency cell will be set up at CMD's office to have a liaising with Govt. /Private hospitals and accident site.
- g. This cell will also provide information to DG/RHS or Railway board, if required.
- h. Initially accident report will be sent to GM through PCSO and Railway Board daily by telephone and confirmation by dak/Fax.

21.5.8 Disaster Management Plan during Natural Disasters:

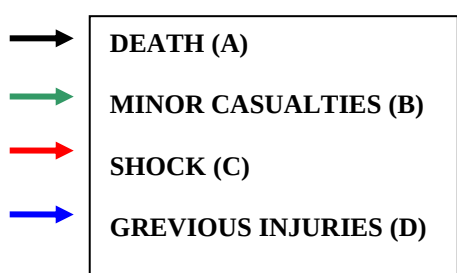
- During natural disasters such as Earth Quakes, Cyclones, Floods, Breeches etc. the basic disaster management plan of the Medical Department will remain the same but it will be modified taking into account the type of disaster, the area affected, the types of medical injuries and the railway set up in the affected area.
- The State government will prepare the disaster management plan for natural disasters in each state. The Principal of civil medical college or CMHO of the district will be the overall in charge of the disaster management programme for medical services required of that area/district. He will be responsible for preparing the plan and executing it while taking help of (other organizations) railways and army etc. during natural disasters.
- The Railways will coordinate and cooperate with the state government agencies during the crises. The railway medical team will report to the State Nodal Disaster Management Officer to help the state government in giving medical aid to the victims of the disaster. As mentioned above the railway medical officers and para medical staff will be divided into two teams. Team A will go and report to the state/district nodal disaster management officer and work under his guidance at the affected site of disaster. Team B will remain at the railway hospital and will help in setting up communication and coordination with state authorities, the divisional and zonal control rooms. Team B will also prepare the hospital to receive casualties, if needed.
- For supply of potable water to the affected population CHI will supervise the chlorination of water, he along with the Sr. DMO/(H&FW) will be responsible for maintaining good hygienic environment and sanitation of the disaster affected area. To prevent the epidemics of communicable diseases, he will vaccinate the railway population.
- Nodal Medical officer at site will coordinate with civil authorities to provide railway medical personnel and equipment at the earliest so that rescue operations can be started without delay
- In case more assistance is required at site, CMD/CHD may be requested to mobilize the resources from nearby Divisions/Zones.

21.5.10 The following are added to the existing Disaster Management Plan of NWR.

- (A) NDMA Advice: the following to be followed as part of Disaster Management Plan.
- (i) Training of Doctors and Para-medical staff to manage CBRN Disasters.
 - (ii) Training of Para -medics, Medical First Responders & Quick Medical Reaction Teams (QMRTS) - in preHospital care in case of CBRN Disaster with provision of Personal Protection Equipments& other equipments to them.
 - (iii) Co-ordination with NDMA for above training may be required.
- A letter is being sent to Railway Board to circulate broad guidelines towards training of Medical & Para-medical staff in case of CBRN Disasters.
- (B) Disaster Management Drills: - One in a year in Railway Hospitals as advised.
- (C) Mock Drills for ART/ARME once in two months if not turned out earlier due to Accidents /Unusual.
- (D) Instructions are also given to divisions to update Data Base regarding Telephone no.& available medical facilities of other Government and Private Hospitals at regularly base



LEGENDS:



21.5.11 Disaster Drills:

As a part of the emergency management plan, every hospital is required to have structure in place to respond to emergencies, this structure is routinely tested during drills. Continuous revisions should be made in the hospital disaster management plan taking leads from the regular disaster drills in the hospitals. In these drills it should be tested if the Hospital is equipped to respond effectively to the disposal of a large no. of dead etc. i.e. role of mortuary services and forensic departments. Hospital Disaster Management Plan should be tested once a year by mock drills for updation.

21.5.12 Training of Health Care Personnel of Indian Railways:

It is desired by the National Plan that the Railways should train their Doctors in the treatment of specific injury from CBRN disasters as also keep medicines, the vaccines, equipments and disposables etc for the same in their hospitals. Railways may alternatively get the Training for Trainers of Medical department so that this could be proliferated to other Doctors and other Para Medical Personnel on all Indian Railways in nominated Railway Training Institute/s.

21.5.13 Responsibility of Stake Holders:

Medical Response:

The different mass casualty events and other potential disasters including Chemical, Biological, Radiological and Nuclear (CBRN) emergencies which may lead to Mass Casualty Evacuation are to be made aware of to the Medical Management of the concerned departments which have their own medical establishments; Railways falls within the ambit of this item; this can be achieved only through specialized training initially to a few select Doctors in each Divisional Hospital (and the Zonal Hospitals).

Ministry of Health and Family Welfare is assigned with legislative capacity for a number of subjects including all matters relating to the medical, dental, nursing and pharmacy professions and education; mental health; standards for drugs; prevention of food adulteration; and prevention and control of epidemics.

Preparedness for Emergency Medical Response (EMR) for the management of mass casualties at the incident site and, their quick and safe evacuation by ambulance services is an important step in this direction.

The roles and responsibilities of various stakeholders at the centre state and district levels are also described. The salient highlights in the guidelines include:

- (i) Preventive measures like strengthening of epidemic control programmes, immunisation, HIV control etc., development of minimum standards of food and water; IDSP and its integration at all levels converged to develop an effective Early Warning System (EWS) operable at all levels.
- (ii) The Medical First Responders (MFRs) of mobile medical teams will be fully trained in triage and resuscitation; well-equipped and supported by all emergency services and material logistics.
- (iii) Emergency medical evacuation requires development of an Integrated Ambulance Network (IAN) including road, aerial and water ambulance networks integrated with special trains for MCE.
- (iv) Full-fledged containerised mobile hospitals will be acquired and attached with hospitals earmarked by states/districts.
- (v) Capacity development will include training of all stakeholders including doctors, nurses, paramedics and other resource persons in triage and Basic Life Support (BLS), and development of specialists.

- (vi) Hospital preparedness should aim at planning the use of hospital resources in a well coordinated and simple way with defined roles for all medical personnel.

NDMA's guidelines include item for medical preparedness for handling CBRN emergencies in following areas:

- (vii) Specific education and skill based training of MFRs and necessary community awareness about various Dos and Don'ts to deal with CBRN incidences in a participative approach.
- (viii) SOPs for CBRN management at the incident site, triage, personal protection, decontamination, resuscitation, and casualty evacuation followed by management of victims at the hospital level.
- (ix) The necessary resource inventory in terms of Personal Protective Equipment (PPE), various detectors, decontamination and decorporation agents, antidotes, essential medicines, specialised mobile laboratories and ambulances fitted with CBRN filters. Special CBRN stores and necessary laboratory facilities will be established at various levels.

21.5.14 Use of Medical Vans/Special Trains by Railways:

- (i) The ARMVs would not be able to evacuate the casualties if they are in large numbers as mentioned in the NDMA Guidelines.
- (ii) The ARMVs would continue to be useful for evacuation of a small number of injured.
- (iii) We have two coaches in the ARME; one of the coaches is mainly used for stocking cold cutting equipment, jacks etc. The other coach provides elementary level hospital facilities for a limited no. of injured persons. A portion of one coach is for accommodation of Railway Staff, Paramedical staff and Doctors etc.
- (iv) Zonal Railways have to arrange special trains consisting of AC and/or non-AC coaches to run from the nearest coaching terminal to the site for evacuation especially for large scale casualties. Railway and non-Railway Medical Teams may be deployed in these special trains along with a portable kit of medicines etc. (POMKA) to attend to the injured during the process of evacuation. In these special trains casualties even in hundreds can be evacuated; the medical attention. NDMA has now agreed to the Railways view as given above.
- (v) During a Chemical Disaster, as the public areas are far away from station premises it may not be possible to run the ARME or a special train to the location close to the site. In some situations due to effect of Chemical Gases, even the Loco Pilot/Guard and the Medical Teams may not find it possible to reach the site in the immediate period of post-Disaster.
- (vi) **A railway is not expected to be a main stake holder in the DM Plan of CBRN disasters.** They can at best be involved in the evacuation of casualties by a special train (A/c and non A/c coaches) from the nearest station closer to site to a station serving Hospital, nearby. Skeleton First Aid facility can be extended by the Railways Medical Team in this special train.
- (vii) The medical and para medical staff of Railways need to be imparted training for management of CBRN disasters, till the specialist force arrives at the disaster site. As an alternative zonal railways must cater in their own plans to arrange special trains consists of AC and non AC coaches for the purpose of evacuation of large number of casualties in a mass casualty event whenever the railways may be called upon to help the district and state authorities. Railways may not be the main stakeholder in disaster management for **CBRN disasters but railways should also train their Para medics, Medical First Responders and Quick Medical Reaction Teams (QMRTS)** and train them to provide pre hospital care in case of CBRN attack within the trains or platforms and should be able to respond till such time specialized teams of

NDRF/SDRF mobilized to reach the site. Therefore, it is essential to provide personal protection equipments and other equipments, training to Para medics and Medical officers for the limited role for your own set up.

21.5.15 In the NDMA's Guidelines on Medical Preparedness and MCE, under the head of Medical Preparedness a no. of duties are defined to be done by the Medical First Responder (MFR). It is specifically mentioned that adequate no. of Personnel, Protection Equipment (PPE) should be available with the mobile teams, various first responders and rescue services..

As the different MFR's are neither defined nor separately listed in the NDMA's guidelines, it is clarified that **the Railways are not to be treated as MFR**. NDMA has clarified in a review meeting held with Railway Ministry representatives that the MFR would be NDRF and along with trained personnel of State Governments and District Administration.

21.5.16 CHEMICAL (TERRORISM) DISASTERS

Preparedness for Emergency Response:-

- Preparedness for an emergency response at the incident site requires protection, detection, and decontamination. RPF and the Medical Department have a role to play in the relief and mitigation efforts. SOPs are required for all the emergency responders working under the overall supervision of the incident commander. This may be identified in the zonal DM Plan as the DRM of the respective division on the Railways where CTD has occurred. SOPs will be included for field decontamination. A well-orchestrated medical response to CTD will be possible only by having a command and control function at the divisional level by the Medical Department.
- **Training for the Responders:-**
- The Medical Department of the Railways has little or no expertise in the effects of different chemicals. This needs to gradually develop initially in a skeleton number (one or two) of Doctors and Para-medics in each Divisional Railway Hospital through training
- **Medical Preparedness for CBRN**
- Action plan by Railways to prevent Chemical (Terrorism) Disaster at crowded railway stations and yards should be worked out. The plan should include immediate response capability of Railways, before the specialist forces arrive, to manage such a disaster.
- **The CMO/CMS will be the main coordinator for the management of CTD.**

21.6 Disaster Management: Operating Department

21.6.1 Station DM Plan

In case of disaster happened at station, the action to be taken by all concerned is defined in Chapter-4 of this Disaster Management Plan (Pt.-I).

21.6.2 Setting up of the Disaster Emergency Control-

- i. As soon as an occurrence declared as a disaster, officers of each department shall be informed by the HQ Emergency Control and the Emergency Control will begin to be manned by Senior Officers as indicated in this plan.
- ii. Charge of this Disaster Emergency Control shall be taken by the CPTM who will be the overall in-charge of the cell and will function as the Disaster Emergency Officer for managing relief and restoration operations from the Zonal Railway Headquarter.
- iii. In case CPTM is not available, CFTM will take over charge as the Disaster Emergency Officer. Dy. COM (Safety) will assist CPTM/CFTM in control in relaying information about the accident to the Board.
- iv. The Disaster Emergency Control will be manned by SAG/JAG/Senior grade officers round the clock in shift duty. In addition to officers of the Operating department, officers of the Engg, Mech., Comm., RPF, S&T, Elect. and Medical departments shall man the Disaster Emergency Cell round the clock.
- v. In addition to officials of various departments inspectors/supervisors and ministerial staff including computer operators as per requirement of Disaster Emergency Control will be called by the in-charge officer of Disaster Emergency Control to man the Disaster Emergency Control Round the clock for assisting officer on duty.
- vi. PCOM is the authorized officer who will close the Disaster Emergency Control on completion of rescue and relief operations. He shall inform all other agencies which were informed at the time of the declaration of the Disaster.
- Vii. A Disaster Emergency Control shall be opened on the division in which the disaster has taken place and in other divisions which are involved in restoration and relief operations and the other stations as decided by the Disaster Emergency Officer.
- viii. Logs which were maintained during the disaster shall be made over to Chief Controller to keep in safe custody, to be put up before an Enquiry Committee if required.
- ix. The Disaster Emergency Officer in shift duty shall maintain a log in which information and instructions form and to the site shall be entered. Officers from other departments who will be maintaining logs pertaining to their responsibility shall enter important information and instructions in the Disaster Emergency log being maintained by the Disaster Emergency Officer, so that a comprehensive picture of the crisis is available in one register.
- x. On the Divisions, the Sr. DOM/DOM will act as the Disaster Emergency Officer and Assistant Offices will man the emergency control round the clock.
- xi. A log on the pattern of HQ will be maintained in the Divisional Disaster Emergency Control.

21.6.3. Channel of information-

Causalities –

- i. Medical department at site shall be responsible for collecting the names of the dead and injured persons and their location in various hospitals.
- ii. This information will be given to Disaster Site Control. Site control will convey this information to Divisional Emergency Disaster Control and from their to the Disaster Emergency Control at HQ and to adjoining divisions and to different enquiry offices opened at terminating, originating and major stations in case of a Train accident.

HQ Disaster Emergency Control will also convey this information to the HQ of the terminating and originating Zonal Railway of the trains involved.

- iii. The Disaster Emergency Control will promptly pass this information to the Commercial Branch at the Disaster Control at HQ for informing the relatives of the injured and dead passengers.
- iv. The Commercial Disaster Control will collect information regarding home address and other details of dead and injured persons .It will also arrange payment of ex- gratia to the next kin of dead and injured passenger as admissible.
- v. It will keep full details of dead & injured as well as amount of ex-gratia paid to each person.
- vi. It will also preserve train passenger chart of passengers for the purpose of identifying dead and injured and payment of ex-gratia to them.

21.6.4. Dissemination of information regarding passengers-

A list of all passengers prepared in alphabetic order and a list of passengers who are not in the list of casualties shall also be prepared by the Commercial Branch at the Disaster site. This list shall contain information regarding the whereabouts of the passengers and their further movement. Full journey details of dead and injured passengers to be kept in record.

21.6.5 Information to Board and CRS-

- i. The Disaster shall be reported to Railway Board and CRS with full particulars of the accident by the Dy. COM (Safety) or in his absence Dy. CME (Safety). Dy. COM (Safety) will also be responsible for further communications with the Railway Board & CRS regarding the disaster.
- ii. The senior most officers at site will be the site incharge as site manager. In case of as Train accident he shall convey the prima fascia cause and probable time of restoration to the Divisional Disaster Control which will relay it to the HQ Disaster Control.
- iii. Normally the Zonal Disaster Control will not deal directly with the press and media. CPRO will be the only officer authorized to deal with the press and media. If it becomes necessary to pass information to the press and media, CPRO should be informed immediately. CPRO will also keep in touch with the Disaster Emergency Officer and Disaster Emergency Control.
- iv. The prima fascia cause of the accident, even if available, shall not be given to CPRO unless the cause is known beyond reasonable doubt and after the same has been approved by the GM. The Disaster Emergency Officer will ensure that only correct and authentic information is given to the CPRO for dissemination to the press and media.
- v. The Disaster Cell will give from time to time updated information about the accident and rescue operations, diversion and regulation of trains and information regarding the dead and injured to the CPRO and Commercial Branch so that updated information can be given to the public & passengers through the press and the media.

21.6.6 Relief and Rescue Operations-

- i. Movement of ART/ARME/Cranes/Labour and Material Specials to the site of the Disaster shall be monitored by the Divisional Disaster Control and the Zonal Disaster Emergency Control. While ordering and dispatching ART/ARME it should be kept in mind that medical van shall be sent ahead, if necessary.
- ii. It shall also be ensured that clear lines are available for reception of medical van/ART at adjoining stations.
- iii. Similarly demands of the Mech. Deptt. from the site for ART/Other Brake Down material to be arranged from an adjoining Railway shall also be monitored by the Disaster Emergency Control. Any requirement at site for relief and rescue operation shall be put up to the Disaster Emergency Officer by the respective departments through site Manager and Divisional Disaster Control.

- iv. Arrangement of wagons for the loading of engineering material and movement of labour and any other service as required for the site of the Disaster shall be put up through the Divisional Disaster Control to the Zonal Disaster Emergency Officer who will arrange for their movement to the site. Similarly the Mechanical Branch at site will decide the requirement of ARTs/ARMEs/Cranes from the adjoining Divisions/Zonal Railways who will promptly communicate with the Divisional Disaster Control and the Zonal Disaster Control.
- v. The Medical Department at site will place demands for special trains to carry injured passengers and Commercial Branch will place demands for carrying the relatives and survivors from and to the site of the accident and such arrangement shall be brought to the notice of public through press and media or directly .When such trains are arranged, the Commercial Branch shall advise the public directly as well as through CPRO.
- vi. The number of special trains to be run shall be decided and monitored by the Disaster Emergency Officer at Zonal Headquarters.
- vii. Relatives of the involved passengers and injured passengers with their companions will be issued free passes for their travel up to their destinations as per the latest instructions issued by the Railway Board.
- viii. Assistance required from the Army, Air Force, Navy, Para military forces, State Government and NGOs etc. available over NWR shall be coordinated by the Zonal Disaster Emergency Officer.
- ix. Monitoring of assistance asked from non Railway agencies will be done jointly by the Emergency Office but it will be primary responsibility of the department which has requested for the help, to monitor receipt of such assistance at the site of the Disaster.

21.6.7 Diversion of Passenger Trains-

- i. Diversion, cancellation, short termination and regulation of passenger trains will be decided by the Zonal Disaster Emergency Officer in consultation with adjoining railways and the Coaching Directorate of the Railway Board.
- ii. Running line of 3 stations on either side of affected block section shall be kept clear accordingly to accommodate different movement.
- iii. Running of Passenger specials for carrying relatives to the site of the accident and for carrying the survivors from the site of the accident will be arranged and closely monitored by the Zonal Disaster Emergency Officer. The numbers of such specials to be run will be decided by him.
- iv. Goods trains which are on run towards disaster site shall be diverted and regulated/terminated suitably.
- v. Crew in sufficient numbers shall be kept reserved for any emergency movement, Movement of Relief & Special trains for GM, PHODs and the Officers and staff for the site of the accident should be arranged promptly and its running will be monitored closely by the Zonal Disaster Emergency Officer.
- vi. If MR, MOSR, CRB, CCRS, CRS and other Board Members decide to visit the site of the disaster, arrangements shall be made by the Zonal Disaster Emergency Officer in coordination with the Safety Directorate and Secretary, Railway Board.

21.6.8 Arrangements at site and at adjoining stations-

Traffic Inspectors or if felt necessary, Assistant Officers will be deputed at the adjoining stations of the site to deal with the extra work and for supervising the shunting operations of trains etc.

CCM will make arrangements for providing drinking water, food, snacks, tea etc. at the site of the disaster for involved passengers as well as Railway officials attending the site of the accident and at adjoining stations where injured passengers are being nursed and trains are being regulated.

21.6.9 Action plan of operating Department in case of Natural calamities-

Disaster may be due to natural calamities i.e. flood, earthquake, cyclone etc. these unexpected events may disturb the service infrastructures such as communications, electricity, rail transport as well as loss of life due to complex situation. Special care is required in rescue and relief operation.

i. Flood-

- a. As soon as ASM on duty notices floods at his stations/sections or information received by any means the same will be conveyed to control immediately.
- b. Engineering officers and supervisors if posted at station shall be informed to protect railway property and to arrange temporary shelter as safer place with the co-ordination of local authorities to evacuation passenger/staff.
- c. If necessary passenger/goods train shall be regulated/diverted accordingly, if any passenger train involved in section due to flood efforts should be made to draw it at safer place. Coaches can be arranged and stabled at stations (if possible) to accommodate passenger/staff.
- d. Stock loaded with boulders or with other material shall be kept ready for quick movement to required places.
- e. If the movement of trains stopped in the effected section division control should collect information regarding approach/route to effected stations/section loss. Assistance required and be same will be relayed to emergency control. Headquarter to render assistance.
- f. All BOs will work under the control of emergency officer. Trains will be restored on giving fit certificate by engineering department.

ii. Earthquake

- a. Earthquake by its nature can occur any where any time correct predication is not possible, only precaution measures can be taken to save lives and loss to property.
- b. When first tremor sensed train passing staff shall stop the train immediately (while stopping train it will be ensured that trains are not stopped at sharp curves, high embankment and cutting and on bridges)
- c. Passenger and staff shall be informed to keep them away from the building and infrastructures.
- d. Electrical supply shall be shut down.
- e. Civil authorities should be informed and assistance shall be called if necessary.
- f. Off duty staff will also be called to render assistance in rescue and relief operations.

iii. Cyclone/Storm

- a. It will be ensured that rolling stock standing in yard is secured with skids/safety chains and hand brakes of all stock are pin down.
- b. When a train is caught in a cyclonic storm at mid section stop the train avoiding of cutting, bridges and embankments.
- c. Doors and window of all coaches should be opened by railway staff.
- d. Station master shall not start train when the wind velocity exceeds the permitted level.
- e. Make announcement frequently to warn the public about the storm/cyclone.
- f. Take all necessary action to provide shelter and other assistance to those affected by cyclone and storm.

8. Transport Arrangements at Headquarter Disaster Control-

For the emergency use arrangement of vehicle will be as under-

- (1) An emergency vehicle no. RJ-14 UA 4790 is being kept with emergency control.
- (2) As per requirement of DEO vehicles of other department will be made available by DGM/G for the use of Disaster Emergency Control Office round the clock.

21.7 Disaster Management: Security Department

Part-I

21.7.1 Introduction:-

The security on Indian Railways is being managed by 3 agencies – District Police, Government Railway Police and Railway Protection Force. The District Police and the Government Railway Police function under administrative control of respective State Government and their role is prevention and detection of crime [except those covered by the Railways Act and the Railway Property (Unlawful Possession) Act] and tackling of law and order problems. Due to this coordination amongst the different agencies is very essential to effectively tackle a Disaster situation.

Railway Protection Force is an ‘Armed Force of the Union’ constituted by an Act of Parliament, the Railway Protection Force Act 1957, for the protection and security of railway property, passenger area & passengers and for matters connected therewith.

21.7.2 Role of RPF in Disasters:-

In case of any disaster especially serious train accidents, fire incidents, explosion in trains or on railway premises, terrorist acts, hijacking of train etc, RPF has to play lead role in coordination with other Departments of Indian Railways and various agencies of State and Central Government.

In cases of CBRN Disasters, or a natural calamity, RPF has to provide support services in rescue, rehabilitation and mitigation efforts.

RPF has a major role in crowd control along with GRP and the State Police and arranging firefighting infrastructure by coordinating with the State Governments/District Administration. The deployment of the RPF may be done on need basis to provide relief, rescue and rehabilitation consequent to a Terrorism Disaster. The Dog Squad may need to be deployed even for preventive checks on terrorist strikes.

21.7.3 Current Preparedness:-

As per guidelines of the High Level Committee, Disaster Management Team of 15 RPF personnel has been constituted on each Division of N.W.Railway. The team is equipped with following equipment:

- i. Torches and other lighting arrangements.
- ii. Nylon ropes and poles for segregating the affected areas from unwanted visitors and spectators.
- iii. Loud-hailer for making announcements.
- iv. Stretchers and first aid equipment.
- v. Wireless sets for inter-communication.
- vi. Cameras for photography of clues.
- vii. Luminous jackets.

Members of this team have been trained in providing the basic level support in crowd control and functional support in case of disasters. RPF staff will ensure safe custody and disposal of the luggage of passengers affected by train accidents in coordination with commercial staff as recommended by the High Level Committee. Coordination with State Police and civil authorities is ensured at the divisional and zonal level by concerned RPF officials. Regarding clearance from State police in case of railway accidents due to suspected sabotage, on a reference made by the DG/RPF, the Ministry of Home Affairs has directed Home Secretaries of the State for taking necessary action. This letter of the

Ministry of Home Affairs has been circulated vide letter No. 2002/Sec(Cr.)/45/47 dated March 27, 2003 of the Security Directorate.

To ensure availability of maximum possible RPF personnel in case of disaster/serious train accidents, off duty RPF personnel are to be called on duty in such situations.

21.7.4 Crowd Control and Management:-

For effectiveness in this, RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities. Chapter 10 (Maintenance of Public Order and Tranquility) of the Criminal Procedure Code (Cr.P.C.) Part-A deals with 'Unlawful Assemblies'. Legal procedures are outlined in Sections 129 to 132 of the Cr.P.C. for dealing with Unlawful Assemblies.

These provisions empower Members and Officers of Armed Forces (RPF is an Armed Force of the Union) to deal with Unlawful Assemblies.

One of the intelligent video analytics to be incorporated in the Integrated Security System is related to signal for crowd density within station premises when it exceeds the prescribed limit. This will enable RPF personnel and railway authorities to get timely information when heavy crowd builds up within station premises and plan follow-up action. Pictures stored on CCTV system will be of immense help in identifying miscreants and in ensuring effective legal action.

21.7.5 Crowd control and Management of rush at Railway Stations:

Specific defined areas of jurisdiction for crowd control and duties assigned to GRP/RPF and the city Police needs to be placed on record much before the expected days of rush. Close coordination has to be maintained between the 3 wings of security personnel Railway Protection Force, Civil Police and GRP with well defined areas of responsibilities. The car and other vehicle parking facility at a station may be discontinued, sale of Platform Tickets can also be banned for short period of time. RPF and GRP personnel deployed on each platform will monitor crowds and rush build up in the circulating areas, booking windows, station platforms and mainly on the FOBs.

21.7.6 Terrorist acts & Hijacking of trains:-

- Procedures have been outlined in the Crisis Management Plans of the Government of India, of the Ministry of Home Affairs and of the Ministry of Railways to tackle such situations. Above mentioned secret documents are available with concerned Authorities and action has to be ensured in accordance with the provisions mentioned in the above mentioned plans.
- Ministry of Home Affairs is the Central Nodal Ministry to tackle hostage or terrorist situations requiring specialized handling. National Security Guard (NSG) has to be requisitioned in such situations. Crisis Management Plan of the Ministry of Railways envisages management of such crisis by the National Crisis Management Committee (NCMC) and Crisis Management Group (CMG) at the Railway Board level and by the zonal management group at the zonal level.
- Coordinated efforts have to be ensured by all security agencies present at the spot. Senior most official available at the spot shall handle situations in accordance with conditions of the crisis at local level and instructions received from concerned Crisis Management Groups at Zonal and National levels.
- Quick Reaction Teams (QRTs) of RPF personnel should be available at bigger stations which will be of immense help to tackle such situations during initial phases specially in cases of terrorist attacks.

किसी भी रेल दुर्घटना/आपदा के दौरान घटना स्थल पर रेलवे सुरक्षा बल अधिकारियों व बल सदस्यों के निम्नलिखित कर्तव्य होंगे:-

क. रेलवे सुरक्षा बल के कर्तव्य :-

1. घटना स्थल पर प्रभावित कोचों और यात्रियों के आस-पास घेराबंदी (Cordonning off) करके अनावश्यक भीड़ व तमाशबीनों को दूर रखना तथा शांति व्यवस्था स्थापित करना।
2. प्रभावित कोचों में फंसे यात्रियों तथा अन्य मृतकों और घायलों को निकालकर चिकित्सा सुविधा उपलब्ध कराना तथा राहत एवं बचाव कार्य करना।
3. घटना स्थल पर राजकीय रेलवे पुलिस, स्थानीय पुलिस तथा अन्य सुरक्षा बलों से मिलकर शांति व्यवस्था स्थापित रखते हुए ऐसी परिस्थितियाँ उपलब्ध कराना जिससे रेल विभाग की अन्य शाखाएँ तथा राहत एवं बचाव कार्य में लगे विभिन्न संगठन सूचारु रूप से अपने कर्तव्यों का निर्वहन कर सकें।
4. घटना स्थल पर शेष बचे यात्रियों को अपने गन्तव्य स्थल तक पहुँचाने हेतु सभी आवश्यक सुविधायें व सहायता उपलब्ध करवाना।
5. स्थानीय पुलिस से समन्वय करके घटना स्थल पर भ्रमण करने वाले विभिन्न अतिविशिष्ट व्यक्तियों तथा रेल विभाग के वरिष्ठ अधिकारियों के आवागमन एवं भ्रमण के दौरान समुचित सुरक्षा व्यवस्था उपलब्ध कराना तथा शांति व्यवस्था सुनिश्चित करना जिससे वह अपने कर्तव्यों का भली भाँति निर्वहन कर सकें।
6. प्रभावित राज्य व जिले के पुलिस विभाग व नागरिक प्रशासन के अधिकारियों से संयोजन स्थापित करते हुए राहत एवं बचाव कार्य तथा शांति व्यवस्था स्थापित रखने हेतु आवश्यक सहायता प्रदान करना।
7. राहत एवं बचाव कार्य के क्षेत्र में संलग्न विभिन्न स्वयं सेवी संस्थाओं, नागरिक सुरक्षा संगठन, (Civil defense organization) स्काउट एवं गाइड आदि से समन्वय स्थापित रखते हुए राहत एवं बचाव कार्य में उनसे सहायता प्राप्त करना।
8. घटनास्थल पर प्रभावित यात्रियों के सामान को एकत्रित करवाकर उसकी सुरक्षा व्यवस्था सुनिश्चित करना।
9. घायल यात्रियों को अस्पताल पहुँचाने में चिकित्सा विभाग की मदद करना।
10. अनुग्रह धनराशि के वितरण में वाणिज्य विभाग के अधिकारियों को आवश्यकतानुसार समुचित सुरक्षा व्यवस्था उपलब्ध कराते हुए उन्हें सहायता पहुँचाना।
11. राहत एवं बचाव कार्य के उपरान्त रेल पथ के पुनर्निर्माण में व रेल आवागमन को सामान्य किये जाने सम्बन्धी कार्य को प्रारम्भ किये जाने हेतु राजकीय रेलवे पुलिस/स्थानीय पुलिस से अनापत्ति प्रमाण-पत्र प्राप्त करना।
12. सभी सम्बन्धित वरिष्ठ अधिकारियों को घटना के सम्बन्ध में सूचना देना और समय पर राहत एवं बचाव कार्य की प्रगति से अवगत कराते रहना।

ख. रेल दुर्घटना/आपदा की सर्वप्रथम सूचना मिलने पर मंडलीय सुरक्षा नियंत्रण कक्ष द्वारा की जाने वाली कार्यवाहियाँ :-

1. सूचना देने वाले स्रोत से अधिक से अधिक जानकारी प्राप्त करके और उसकी विश्वसनीयता का परीक्षण करके वरिष्ठ मंडल सुरक्षा आयुक्त, अन्य सभी सम्बन्धित रे.सु.ब. अधिकारियों, आसपास के मंडलों के सुरक्षा नियन्त्रण कक्षों और घटनास्थल के आस-पास की पोस्टों को सूचना देना।
2. घटनास्थल से सम्बन्धित राज्य के पुलिस नियन्त्रण कक्ष, राजकीय रेलवे पुलिस के अपर महानिदेशक/महानिरीक्षक के कार्यालय/सुरक्षा नियन्त्रण कक्ष, सम्बन्धित जनपद के वरिष्ठ पुलिस अधीक्षक/जिला नियन्त्रण कक्ष, जिलाधिकारी, मुख्य चिकित्सा अधिकारी व अग्निशमन शाखा को घटना के बारे में सूचना देना।

3. सभी आवश्यक एवं महत्वपूर्ण टेलिफोन नम्बरों/मोबाईल नम्बरों की सूची तैयार रखना और आवश्यकता पड़ने पर विभिन्न अधिकारियों को अवगत कराना। उदाहरण स्वरूप रेलवे एवं रेलवे सुरक्षा बल के सभी अधिकारीगण, मंडल के सम्बन्धित अधिकारीगण, आसपास की रे. सु.ब. पोस्ट व चौकी के टेलीफोन नम्बर तथा उनके प्रभारी व अन्य बल सदस्यों के मोबाईल नम्बर, घटना स्थल पर स्थापित नियन्त्रण कक्ष और वहां पर उपलब्ध रे.सु.ब. अधिकारीगण व अन्य बल सदस्यों के टेलीफोन नम्बर/मोबाईल नम्बर, प्रभावित जनपद के वरिष्ठ पुलिस अधीक्षक, मुख्य अग्निशमन अधिकारी, जिलाधिकारी, मुख्य चिकित्सा अधिकारी, सम्बन्धित थानाध्यक्षों के टेलिफोन नम्बर व मोबाईल नम्बर, प्रभावित राज्य के पुलिस महानिदेशक, अपर पुलिस महानिदेशक (शांति व्यवस्था) पुलिस नियन्त्रण कक्ष, अपर पुलिस महानिदेशक (अग्निशमन सेवा), मुख्य चिकित्सा निदेशक, प्रमुख सचिव (गृह) व मुख्य सचिव।
4. आपदा प्रबन्धन के सम्बन्ध में की गई विभिन्न कार्यवाहियों का विवरण रखने हेतु एक लॉगबुक/रजिस्टर रखा जायेगा, जिसमें सभी प्राप्त सूचनाओं का समय, सूचना देने वाले का नाम व सूचनाओं का विवरण, उनके सम्बन्ध में की गई कार्यवाही तथा प्रसारित की गई विभिन्न सूचनाओं का समय एवं विवरण आदि अंकित किया जायेगा। जिससे बाद में आवश्यकता पड़ने पर दुर्घटना एवं उस सम्बन्ध में कृत कार्यवाहियों की जानकारी प्राप्त की जा सके।
5. घटनास्थल पर स्थापित संयुक्त नियन्त्रण कक्ष एवं अन्य विभिन्न वरिष्ठ अधिकारियों के माध्यम से प्राप्त महत्वपूर्ण अधिकृत सूचनाओं का संकलन किया जायेगा। जैसे:- दुर्घटना का समय, दुर्घटना ग्रस्तगाड़ी का नाम, प्रभावित कोच और उनकी संख्या, दुर्घटनास्थल का जिला व राज्य तथा उसकी विभिन्न महत्वपूर्ण स्थानों से दूरी, मृतकों व घायलों की संख्या, दुर्घटना स्थल पर पहुँचने वाले वरिष्ठ अधिकारीगण व अन्य वरिष्ठ तथा महत्वपूर्ण व्यक्तियों का विवरण और उनके पहुँचने का समय, स्थल पर उपलब्ध रे.सु.ब. अधिकारियों के नाम व पद तथा समस्त कर्मचारियों की संख्या उनके टेलिफोन नम्बर/मोबाईल नम्बर तथा उनके पास उपलब्ध उपकरण, घटनास्थल पर रे.सु.ब. द्वारा की जाने वाली कार्यवाहियाँ, घटनास्थल पर उपलब्ध वरिष्ठ चिकित्सा अधिकारी, अन्य सहयोगी चिकित्सकगणों तथा उनके टेलिफोन नम्बर/मोबाईल नम्बर आदि दुर्घटनास्थल के आस पास उपलब्ध अस्पतालों का नाम, घटनास्थल से दूरी तथा वहाँ पर पहुँचाये गये घायल यात्रियों की संख्या व अन्य विवरण, माननीय रेल मंत्री जी अथवा अन्य विशिष्ट व्यक्तियों के घटनास्थल पर पहुँचने का पल प्रतिपल (Minute to minute) कार्यक्रम, उनकी सुरक्षा व्यवस्था के सम्बन्ध में कृत कार्यवाही, उनके घटनास्थल पर उपस्थित रहने की अवधि व की गई विविध कार्यवाहियाँ या घोषणा यदि कोई की गई हो आदि, दुर्घटना स्थल पर बचे हुए यात्रियों को उनके गन्तव्य स्थल तक पहुँचाये जाने के सम्बन्ध में की गई कार्यवाही आदि घटनास्थल पर स्थापित संयुक्त नियन्त्रण कक्ष में रे.सु.ब. द्वारा रखी जा रही सभी सूचनाये व विवरण।
6. घटना का भ्रणम करने वाले अति-विशिष्ट/विशिष्ट व्यक्तियों के कार्यक्रमों की विस्तृत जानकारी रखना तथा उससे क्षेत्रीय नियन्त्रण कक्ष, सभी वरिष्ठ अधिकारियों व घटना स्थल पर कार्यरत सुरक्षा नियन्त्रण कक्ष व अन्य अधिकारियों को अवगत कराना।
7. घटना स्थल पर होने वाली विभिन्न कार्यवाहियों और वहाँ से प्राप्त सूचनाओं का समय क्रमानुसार संकलन किया जायेगा।
8. केवल अधिकृत माध्यम से प्राप्त सूचनाओं का प्रसारण किया जायेगा एवं अविश्वसनीय सूचनाओं का अनावश्यक प्रसारण नहीं किया जायेगा तथा यह सुनिश्चित किया जायेगा कि किसी की अफवाह या निराधार एवं भ्रामक सूचना फैलाये जाने को बल न मिले।

ग. वरिष्ठ मंडल सुरक्षा आयुक्त द्वारा की जाने वाली कार्यवाही :-

1. घटना स्थल के बारे में अधिकतम तथ्य पर जानकारी प्राप्त करके सभी वरिष्ठ अधिकारियों को अवगत कराना।
 2. सम्बन्धित राज्यों के वरिष्ठ पुलिस एवं प्रशासनिक अधिकारी, चिकित्सा अधिकारी, सम्बन्धित जिले के जिला अधिकारी, वरिष्ठ पुलिस अधीक्षक, मुख्य चिकित्सा अधिकारी को जानकारी उपलब्ध कराकर सामंजस्य स्थापित करना व शीघ्र-अतिशीघ्र सहायता उपलब्ध कराने का अनुरोध करना।
 3. आस-पास की पोस्टों, मंडलीय मुख्यालय में उपलब्ध अधिकतम बल एवं आपदा प्रबंधन टीम को त्वरित साधन से घटना स्थल के लिए रवाना करना। यदि दुर्घटना राहत ट्रेन मंडल मुख्यालय से जा रही है तो आपदा प्रबंधन टीम को उसके माध्यम से रवाना करेंगे तथा यह सुनिश्चित करेंगे कि सम्बन्धित पोस्ट व आस-पास के पोस्ट प्रभारी व उपलब्ध बल तथा अन्य मंडलों से उपलब्ध कराया गया अधिक से अधिक बल शीघ्र-अतिशीघ्र घटना स्थल पर पहुँचकर अपने निर्धारित कर्तव्यों का पालन करें।
 4. घटना स्थल के आस-पास के मंडलीय सुरक्षा आयुक्तों को सूचना देकर उनसे सहायता का अनुरोध करना।
 5. मंडलीय नियन्त्रण कक्ष में उपलब्धता के आधार पर एक सहायक सुरक्षा आयुक्त/निरीक्षक के नेतृत्व में आवश्यक बल सदस्य उपलब्ध कराये जायेंगे जो मुख्य नियन्त्रण कक्ष के सम्बन्ध में दिये गये उपर्युक्त कर्तव्यों का निर्वहन करेंगे।
 6. स्वयं मंडल रेल प्रबंधक व अन्य सभी वरिष्ठ अधिकारियों को आवश्यक सूचना उपलब्ध कराकर शीघ्र-अतिशीघ्र घटना स्थल पर पहुँचेंगे और वहाँ पर पहुँचते ही सम्पूर्ण बल एवं परिस्थितियों का कार्यभार अपने हाथ में लेकर उनका सम्यक दिशा निर्देशन करेंगे।
- मंडल सुरक्षा आयुक्त के घटना स्थल पर पहुँचने के पूर्व वहाँ पर मौजूद वरिष्ठतम रे.सु.ब. अधिकारी सम्पूर्ण बल का प्रभारी होगा जो घटना स्थल अधिकारी (Site Officer) के कर्तव्यों का निर्वहन करेगा तथा अधिकृत एवं महत्व पूर्ण सूचनाएँ नियन्त्रण कक्ष, वरि.मंडल सुरक्षा आयुक्त व अन्य सभी वरिष्ठ अधिकारियों को उपलब्ध करायेगा।
7. घटना स्थल पर स्थापित किये जाने वाले वाणिज्य शाखा, चिकित्सा शाखा एवं रे.सु.ब. के संयुक्त नियंत्रण कक्ष में कम से कम एक निरीक्षक/उपनिरीक्षक स्तर के अधिकारी के नेतृत्व में स.उ.नि. व अन्य आवश्यक बल उपलब्ध कराया जायेगा जो इन शाखाओं के समकक्ष व अन्य वरिष्ठ अधिकारियों तथा रेल विभाग की अन्य शाखाओं से संयोजन स्थापित रखेंगे और अपने निर्धारित कर्तव्यों का निर्वहन करेंगे।
 8. घटना स्थल का भ्रमण करने वाले अतिविशिष्ट/विशिष्ट एवं महत्वपूर्ण व्यक्तियों के कार्यक्रमों की जानकारी रखना तथा स्थानीय पुलिस व प्रशासन से संयोजन स्थापित रखते हुए उनकी सुरक्षा व्यवस्था तथा उनके कार्यक्रम के दौरान शांति व्यवस्था सुनिश्चित करना।
 9. दुर्घटना की सूचना मिलने के समय से लेकर दुर्घटना स्थल पर पहुँचने से पूर्व टेलिफोन तथा अन्य संचार माध्यमों से एवं तदोपरान्त घटनास्थल पर व्यक्तिगत इस प्रकार आपातकालीन परिस्थिति में रे.सु.ब. के निर्धारित कर्तव्यों के निर्वहन का सम्पूर्ण पर्यवेक्षण एवं मार्ग दर्शन किया जायेगा।
 10. मंडलीय स्तर पर यह जानकारी रखी जायेगी कि इस प्रकार की आपदाओं के क्षेत्र में कौन-कौन से स्वयं सेवी संगठन, नागरिक सुरक्षा संगठन, स्काउट एवं गाइड आदि कार्यरत हैं, जिनसे सम्पर्क स्थापित करके उनकी सहायता हेतु अनुरोध किया जायेगा।
 11. समय-समय पर घटना स्थल पर हो रही कार्यवाही, राहत एवं बचाव कार्य, विशिष्ट व्यक्तियों के आवागमन एवं अन्य महत्वपूर्ण सूचनाओं से वरिष्ठ अधिकारियों को अवगत कराया जायेगा तथा यह सुनिश्चित किया जायेगा कि कोई अधिकारी अथवा बल सदस्य अनाधिकृत सूचनाओं का प्रसार न करे। विशेष रूप से मृतकों व घायलों की संख्या का विवरण घटना

स्थल पर उपलब्ध अधिकृत वरिष्ठ चिकित्सा अधिकारी के माध्यम से ही प्राप्त करके आवश्यकतानुसार विभिन्न अधिकारियों को अवगत कराया जायेगा।

12. आस-पास उन चिकित्सालयों में जहाँ पर घायलों को पहुँचाया गया हो, कम से कम एक निरीक्षक/उपनिरीक्षक अथवा उपलब्ध अन्य अधिनस्थ अधिकारियों के नेतृत्व में आवश्यक सुरक्षा बल उपलब्ध कराया जायेगा तथा रेलवे व स्थानीय चिकित्सा अधिकारियों में सामंजस्य स्थापित रखते हुए वहाँ पर सुरक्षा एवं शांति व्यवस्था सुनिश्चित करवायेगें। यदि वहाँ पर किन्हीं अतिविशिष्ट/विशिष्ट एवं महत्वपूर्ण व्यक्तियों का आवागमन होता है तो स्थानीय पुलिस के साथ संयोजन करके उनकी सुरक्षा सम्बन्धी कार्यवाही करेगे।
13. घटना स्थल पर वाणिज्य शाखा के अधिकारियों द्वारा मृतकों के सम्बन्धियों तथा घायलों को अनुकम्पा राशि का दिये जाने में उनकी सहायता करना तथा और आवश्यकतानुसार उन्हें सुरक्षा व्यवस्था उपलब्ध कराना।
14. घटना स्थल पर उपलब्ध रा.रे.पु., स्थानीय पुलिस एवं अन्य सुरक्षा बलों के साथ सामंजस्य स्थापित करते हुए रे.सु.ब. के निर्धारित कर्तव्यों का निर्वहन करवाना।

घ. घटनास्थल पर उपलब्ध वरिष्ठतम रे.सु.ब. अधिकारी (Site Officer) के कर्तव्य :-

1. वह घटना स्थल पर उपलब्ध समस्त बल और रे.सु.ब. के समस्त कार्यों का प्रभारी होगा तथा मंडलीय सुरक्षा आयुक्त के आगमन तक वह स्वविवेक एवं मंडल सुरक्षा आयुक्त तथा अन्य अधिकारियों से टेलिफोन या अन्य संचार माध्यमों से प्राप्त निर्देशानुसार वहाँ पर रे.सु.ब. द्वारा किये जाने वाले समस्त कर्तव्यों का पर्यवेक्षण करेगा और इस सम्बन्ध में हुई प्रगति से समय-समय पर सभी वरिष्ठ अधिकारियों, घटना स्थल पर स्थापित नियंत्रण कक्ष को अवगत कराता रहेगा।
2. वह अपने मोबाईल फोन नम्बर के बारे में मंडलीय सुरक्षा नियंत्रण कक्ष व अन्य सभी वरिष्ठ अधिकारियों को सूचित करेगा, जिससे आवश्यकता पड़ने पर उनसे वार्ता की जा सके।
3. वह सुनिश्चित करेगा कि घटना स्थल पर निर्धारित संयुक्त नियन्त्रण कक्ष यथाशीघ्र स्थापित होकर कार्यरत हो जाये और उसमें उपयुक्त प्रभारी अधिकारी व आवश्यक सुरक्षा बल की नियुक्ति कर दी जाये। वह घटना स्थल पर आगमन करने वाले विशिष्ट/अति-विशिष्ट व्यक्तियों की सुरक्षा व्यवस्था तथा भ्रमण के दौरान शांति व्यवस्था सुनिश्चित करेगा और उन्हें आवश्यकतानुसार जानकारी उपलब्ध करायेगा।
4. घटना स्थल पर उपलब्ध प्रभारी चिकित्सा अधिकारी से सम्पर्क करके उन्हें आवश्यक सहायता उपलब्ध करायेगा। घायलों को अस्पताल पहुँचाने में मदद करेगा तथा अस्पताल में आवश्यक रे.सु.ब. अधिनस्थ अधिकारी व बल सदस्यों की नियुक्ति करेगा जहाँ पर घायलों को भेजा जा रहा हो। चिकित्सा शाखा के प्राधिकृत अधिकारी से मृतकों व घायलों के सम्बन्ध में सूचना प्राप्त करके आवश्यकतानुसार रे.सु.ब. के वरिष्ठ अधिकारियों को अवगत करायेगा।
5. वह घटना स्थल पर पहुँचकर अतिरिक्त बल, उपकरण या किसी अन्य वस्तु की आवश्यकता के सम्बन्ध में मंडलीय सुरक्षा नियंत्रण कक्ष व वरिष्ठ अधिकारियों को अवगत कराते हुए उनका प्रबन्ध करेगा।
6. घटना स्थल पर उपलब्ध उन सभी वस्तुओं/उपकरणों को सुरक्षित करेंगे जिनसे दुर्घटना के कारणों पर प्रकाश पड़ने की सम्भावना हो।
7. घटना स्थल पर उपलब्ध उन सभी वस्तुओं/उपकरणों को सुरक्षित रखेंगे।
8. मृतकों, घायलों व प्रभावित यात्रियों के सामान की सूची बनाकर रखना तथा आवश्यकता पड़ने पर सम्बन्धित व्यक्ति को उपलब्ध कराना।
9. घटना स्थल पर राहत एवं बचाव कार्यों में संलग्न व्यक्तियों एवं संस्थाओं को सभी आवश्यक सुविधाएँ एवं सहायता उपलब्ध कराना।

च. घटनास्थल पर कार्यरत संयुक्त नियंत्रण कक्ष में उपलब्ध रे.सु.ब. अधिकारियों के कर्तव्य :-

1. घटनास्थल अधिकारी द्वारा संयुक्त नियंत्रण कक्ष में एक निरीक्षक/उपनिरीक्षक स्तर का अधिनस्थ अधिकारी तथा उसके साथ आवश्यक सहायक बल कर्मी नियुक्त किये जायेंगे।
2. इस नियंत्रण कक्ष में दुर्घटना से सम्बन्धित सभी आवश्यक सूचनाये उपलब्ध रखी जायेगी। जिनमें से प्रमुख नीचे दी जा रही है :-
 - प्रभावित गाड़ी का नाम व नम्बर, उसमें उपलब्ध समस्त कोचों की संख्या और प्रभावित कोचों की संख्या तथा उनकी इंजन स्थिति।
 - घटना का समय।
 - घटना का स्थान, कि.मी. संख्या, आसपास के स्टेशनों के नाम व निकटतम महत्व पूर्ण स्टेशनों के नाम व उनकी दूरी, पास का ग्राम या कस्बा, सम्बन्धित थाना, तहसील, जिला व राज्य का नाम। सम्बन्धित रेल मंडल व रे.सु.ब. पोस्ट।
 - ट्रेन के चालक, सह-चालक, गार्ड व ट्रेन में उपस्थित अन्य रेल कर्मियों के नाम।
 - मृतकों व घायल व्यक्तियों की संख्या व पता तथा विवरण, जहाँ तक सम्भव हो।
 - मृतक/घायल रेलकर्मियों के नाम व पद।
 - पास के अस्पतालों का नाम व घटना स्थल से उनकी दूरी जहाँ पर घायलों को ले जाया गया हो।
 - घटना स्थल पर उपलब्ध रेल विभाग के वरिष्ठ अधिकारियों के नाम।
 - इस नियंत्रण कक्ष में उपलब्ध चिकित्सा और वाणिज्य शाखा के प्रभारी अधिकारियों के नाम।
 - घटनास्थल पर आवागमन व भ्रमण करने वाले विशिष्ट/अति-विशिष्ट व्यक्तियों का आगमन व उनके प्रस्थान का समय एवं भ्रमण कार्यक्रम का विवरण।
 - घटनास्थल पर उपलब्ध रे.सु.ब. के घटनास्थल, अधिकारी, नियंत्रण कक्ष रेल विभाग के अन्य अधिकारियों, निकटवर्ती पुलिस थानाध्यक्षों, वरिष्ठ पुलिस अधीक्षक व जिला अधिकारी तथा जिले के अन्य महत्वपूर्ण अधिकारीगण राज्य स्तरीय अधिकारीगण तथा रेल विभाग के वरिष्ठ अधिकारियों के टेलिफोन नम्बर/मोबाईल नम्बरों की सूची बनाकर रखना तथा आवश्यकता पड़ने पर उनकी जानकारी उपलब्ध कराना।
 - मृतकों, घायलों व प्रभावित यात्रियों के सामान की सूचना बनाकर रखना तथा आवश्यकता पड़ने पर सम्बन्धित व्यक्ति को उपलब्ध कराना।
 - विभिन्न पोस्टों व मंडलों से आने वाले घटना स्थल पर उपलब्ध समस्त रे.सु.ब. अधिकारियों व कर्मियों की सूची बनाकर रखना और उनके आगमन तथा प्रस्थान के समय तथा उनको दिये जाने वाले दायित्वों का अभिलेखीकरण। इस सम्बन्ध में और उपर्युक्त अन्य सम्बन्धित सूचनाओं के अभिलेखीकरण हेतु सामान्य दैनिकी का प्रयोग किया जा सकता है।
3. इस सुरक्षा नियंत्रण कक्ष के टेलिफोन नम्बर को मंडलीय सुरक्षा नियंत्रण कक्ष व अन्य वरिष्ठ अधिकारियों को यथाशीघ्र सूचित करना।
4. घटनास्थल पर राहत व बचाव कार्यों की प्रगति तथा अन्य महत्वपूर्ण सूचनाओं के सम्बन्ध में समय-समय पर पूछे जाने पर विभिन्न वरिष्ठ अधिकारियों को जानकारी उपलब्ध कराना।
5. घटनास्थल पर शेष बचे हुए यात्रियों को उनके गन्तव्य स्थान पर पहुँचाने के लिए आवश्यक जानकारी उपलब्ध कराना।
6. घटनास्थल पर उपलब्ध रेल विभाग की अन्य शाखाओं के अधिकारियों, कर्मियों तथा स्थानीय प्रशासन के अधिकारियों व कर्मियों की उपलब्धता की यथा सम्भव जानकारी रखना।

छ. प्रभावित घटनास्थल से सम्बन्धित पोस्ट प्रभारी के कर्तव्य :-

1. घटना के बारे में यथाशीघ्र अधिकृत जानकारी प्राप्त करके मंडलीय सुरक्षा नियन्त्रण कक्ष व अन्य वरिष्ठ अधिकारियों को अवगत कराना।
2. आसपास की रे.सु.ब. पोस्टों, रा.रे.पु. तथा स्थानीय पुलिस के अधिकतम अधिकारियों से सम्पर्क स्थापित करके घटना स्थल पर शीघ्र अतिशीघ्र अधिकतम सहायता पहुँचाने का प्रयास करना।
3. उपलब्ध अधिकतम बल व उपकरणों जैसे: रस्से, टार्च, ड्रेगन लाईट, स्ट्रेचर, भीड़ नियंत्रण उपकरण, वॉकी-टॉकी, वायरलैस सैट आदि लेकर शीघ्रताशीघ्र घटनास्थल पर प्रस्थान करना और वहाँ पर अन्य वरिष्ठ रे.सु.ब. अधिकारियों के आगमन तक घटनास्थल अधिकारी (Site Officer) के रूप में कार्य करेंगे और इस समय में उपर्युक्त निर्धारित निर्देशों का पालन करना।
4. अपने मोबाईल नम्बर से सभी अधिकारियों तथा घटनास्थल पर स्थापित नियंत्रण कक्ष एवं मंडलीय नियन्त्रण कक्ष को अवगत कराना।

ज. क्षेत्रीय सुरक्षा नियन्त्रण कक्ष के कर्तव्य :-

1. इस सुरक्षा नियन्त्रण कक्ष का प्रभार सहायक सुरक्षा आयुक्त ग्रहण करके सभी आवश्यक कर्तव्यों का निर्वहन करेंगे।
2. मंडलीय सुरक्षा नियंत्रण कक्ष व घटना स्थल पर स्थापित सुरक्षा नियन्त्रण कक्ष से संयोजन स्थापित रखते हुए सभी आवश्यक जानकारियाँ एकत्रित करना और वरिष्ठ अधिकारियों का अवगत कराना।
3. मंडलीय सुरक्षा नियन्त्रण कक्ष व घटना स्थल पर स्थापित सुरक्षा नियन्त्रण कक्ष से सभी महत्वपूर्ण टेलिफोन नम्बर व मोबाईल नम्बर की सूची प्राप्त करके उनका अभिलेखीकरण तथा आवश्यकता पड़ने पर वरिष्ठ अधिकारियों को अवगत कराना।
4. प्रभावित मंडलों के आसपास के मंडलों के सुरक्षा नियन्त्रण कक्षों को घटना की जानकारी देते हुए आवश्यक मदद का अनुरोध करना।
5. मुख्य सुरक्षा आयुक्त, क्षेत्रीय स्तर के वरिष्ठ रे.सु.ब. अधिकारियों व रेलवे बोर्ड के सुरक्षा नियंत्रण कक्ष को घटना के बारे में अविलम्ब आवश्यक जानकारी उपलब्ध कराना।
6. क्षेत्रीय स्तर के विभिन्न वरिष्ठ अधिकारियों के आवागमन व उनके द्वारा की जा रही कार्यवाही का समय क्रमानुसार विवरण रखना।
7. घटनास्थल पर रेल विभाग के वरिष्ठ अधिकारियों तथा अन्य विशिष्ट/अति-विशिष्ट व्यक्तियों के भ्रमण कार्यक्रमों के सम्बन्ध में जानकारी रखना और क्षेत्रीय तथा मंडलीय स्तर के अधिकारियों व नियंत्रण कक्षों को सूचित करना।
8. क्षेत्रीय स्तर पर अन्य नियन्त्रण कक्षों से संयोजन स्थापित रखते हुए आवश्यक जानकारी रखना।
9. सम्बन्धित राज्य, क्षेत्रीय महानिरीक्षक व जिलास्तरीय नियंत्रण कक्षों से संयोजन स्थापित रखते हुए सर्वसम्बन्धित से सहायता प्राप्त करना। इस सम्बन्ध में यह सुनिश्चित किया जायेगा कि अनाधिकृत एवं संवेदनशील सूचनाओं को अपरिपक्व रूप से प्रसारण न किया जाये।
10. दुर्घटना राहत ट्रेन व अन्य विशेष ट्रेनों के आवागमन के समय आदि का विवरण रखना।

झ. मुख्य सुरक्षा आयुक्त के कर्तव्य :-

1. अधिकृत जानकारी प्राप्त करके महाप्रबंधक और महानिदेशक/रे.सु.ब. को अवगत कराना।
2. सम्बन्धित वरिष्ठ मंडलीय सुरक्षा आयुक्त तथा निकटवर्ती वरिष्ठ मंडल सुरक्षा आयुक्त को घटना स्थल पर अधिकतम सहायता पहुँचाने व राहत व बचाव कार्य के सम्बन्ध में आवश्यक निर्देश देना।
3. प्रभावित राज्यों, के वरिष्ठ अधिकारियों जैसे पुलिस महानिदेशक, अपर पुलिस महानिदेशक (शांति व्यवस्था) अपर पुलिस महानिदेशक (रेलवे) सम्बन्धित क्षेत्रीय पुलिस महानिरीक्षक प्रमुख सचिव (गृह) आदि से संयोजन स्थापित रखते हुए आपदा प्रबंधन के सम्बन्ध में समुचित संयोजन करते हुए आवश्यक निर्देश पारित करना।
4. रेल दुर्घटना/आपदा के सम्बन्ध में रे.सु.ब. के निर्धारित कर्तव्यों का निर्वहन सुनिश्चित करवाना।
5. आवश्यकतानुसार घटनास्थल का भ्रमण करके रे.सु.ब. के समस्त कर्तव्यों का पर्यवेक्षण।

21.7.8 Part-III

A: Consitution of RPF DMP teams

S.No	Division	No of staff
01	Ajmer	28
02	Bikaner	18
03	Jaipur	30
04	Jodhpur	15
Total		91

B: Equipments available of RPF DMM teams

S.N	Equipments	Ajmer	Bikaner	Jaipur	Jodhpur
01	Torches and other lighting arrangements	Torch-02 DSL-01	Torch-25 DSL-10	Torch-05 DSL-02	Torch-05 DSL-02
02	Nylon Ropes and Poles	Ropes-3125 Mtrs. Poles- 30	Ropes-1600 Mtr. Poles-100	Ropes- 2000 Mtrs. Poles-95	Ropes-1500 Mtrs. Poles-100
03	Loud Hailer	02	02	01	01
04	Stretchers and First Aid box	Stretcher-02 F.A.Box-01	Stretcher-05 F.A.Box-02	Stretcher-04 F.A.Box-01	Stretcher-05 F.A.Box-02
05	Wireless sets (WT)	45	25	15	13
06	Cameras	01	01	01	01
07	Luminous Jackets	20	20	21	28

C:Equipments of Integrated Security System

S.No	Equipments	Ajmer	Bikaner	Jaipur	Jodhpur
01	CCTV Cameras	56	62	74	60
02	Baggage Scanner and Vehicle Scanner	03	03	05	03
03	DFMD	02	02	04	02
04	BDDS	Yes	Yes	Yes	Yes

21.7.9 Miscellaneous

The security on Indian Railways is being managed by 3 agencies – District Police, Government Railway Police and Railway Protection Force. The District Police and the Government Railway Police function under administrative control of respective State Government and their role is prevention and detection of crime [except those covered by the Railway Act and the Railway Property (Unlawful Possession) Act] and tackling of law and order problems. Due to this coordination amongst the different agencies is very essential to effectively tackle a Disaster situation.

Railway Protection Force is an ‘Armed Force of the Union’ constituted by an Act of Parliament, for the protection and security of railway property, passenger area & passengers and for matters connected therewith. Members of this team have been trained in providing the basic level support in crowd control and functional support in case of Disasters.

- a) RPF staff will ensure safe custody and disposal of the luggage of passengers affected by train accidents in coordination with commercial staff as recommended by the High Level Committee.
- b) Coordination with State Police and civil authorities is ensured at the divisional and zonal level by concerned RPF officials. Regarding clearance from State police in case of railway accidents due to suspected sabotage, on a reference made by the DG/RPF, the Ministry of Home Affairs has directed Home Secretaries of the State for taking necessary action. This letter of the Ministry of Home Affairs has already been circulated to all the General Managers vide letter No. 2002/Sec (Cr.)/45/47 dated March 27, 2003 of the Security Directorate.
- c) To ensure availability of maximum possible RPF personnel in case of disaster/serious train accidents, off duty RPF personnel are to be called on duty in such situations.
- d) In liaison with, the National Disaster Management Authority (NDMA), ‘training for trainers’ has been organized so as to develop in house expertise on training. 30 categories of security equipment have been identified as required by RPF to upgrade their effectiveness. These need to be gradually procured.
- e) RPF role should not be confined to protection of luggage only. They should be tasked and trained in search and rescue and first aid duties during a disaster.
- f) Incident Command Post of the Railways at the disaster site should function in close coordination with District/State Emergency Operation Centre/s.

21.8 Disaster Management: Signal and Telecom Department

21.8.1 As soon as the information are received about the serious accident/ disaster to S&T HQ Control. S&T HQ control shall inform concerned official of HQ (Dy. CSTE/HQ , JE/SSE/Tele/HQ/Exchange) and Division (Sr.DSTE of concerned division) for acting HQ disaster cell & divisional Emergency Cell/Emergency Help line booth. HQ officials shall also coordinate with divisional officials for setting up communication facilities at disaster/ accident site.

21.8.2 HQ DISASTER CELL

Immediately after getting information about serious accident/disaster from S&T HQ control/HQ Emergency Control HQ disaster cell shall be activated at HQ by nominated JE/SSE Tele/HQ Exchange with his/her team under the guideline of Dy.CSTE/HQ with following system:

- a. BSNL telephones with STD and ISD facility. Nominated telephones are 2725806 & 2725817
- b. Two Railway telephones with STD facility. Nominated telephones are 25680 & 25681.
- c. One satellite phone made available immediately at Multi Disaster resistance control room. It is available with SSE/Tele/HQ Exchange.(Nominated under Division)
- d. Proper working of Cable connection of TV.
- e. Proper communication facility with Chief Controller/ Dy. Chief Controller to accident site should be ensured.
- f. One PC with All in One Printer (FAX, Scan, and Print & Copy) & with Internet/Rail net connection.
- g. Round the clock monitoring & proper working of all the above shall be ensured by JE/SSE/Tele & officers.

21.8.3 DIVISIONAL EMERGENCY CELL:

Similarly, immediately after getting information about serious accident/disaster, Divisional Emergency Cell shall be activated at divisional level by concerned JE/SSE /Tele with his/her team under the guideline of Sr. DSTE/DSTE with followings:

- a. BSNL telephones with STD and ISD facility.
- b. Two Railway telephones with STD facility.
- c. Accident Information telephone 1072 at nominated stations.
- d. One satellite phone at Divisional Emergency cell.
- e. Proper communication facility with Chief Controller/ Dy. Chief Controller with accident site.
- f. Proper working of Cable connection of TV.
- g. One PC with All in One Printer (FAX, Scan, and Print & Copy) & with Internet/Railnet connection.
- h. Divisional control shall make all for providing/extending communication from disaster site to various offices as & when required, including Zonal Disaster cell & Railway Board disaster cell.
- i. Round the clock monitoring & proper working of all the above shall be ensured by JE/SSE/Tele and DSTE/ASTE.

21.8.4 SETTING UP COMMUNICATION FACILITIES AT SITE:

As soon as the information is received about the serious accident/disaster, concerned field unit shall take necessary action for setting up communication from accident/disaster site, to the control office as follows:

- a. Adjoining sectional JE/SSE (Tele) with his/her team shall rush to the accident/disaster site with control phones and other equipments. Control phone shall be connected to the sectional control through Emergency Socket.
- b. BSNL/Railway Telephones available at adjoining Station/Cabins/Gates shall be extended to the accident site with divisional HQ.
- c. In areas where 6 quad cable is available the same will be utilized for providing communications at the disaster site with divisional Headquarter.
- d. At the site, satellite phone with the FAX machine shall be installed for providing communication between the site of Disaster and Divisional Disaster Control Office as well the HQ Disaster Emergency Control Office at NWR HQ.
- e. One 25 W VHF set shall also be provided at the site and one 25 W VHF set shall be installed in a road vehicle so that VHF communications can be established from site to adjoining stations.
- f. 5 Watt hand-held walkie-talkie sets shall also be provided at the site.
- g. 230 VAC shall be made available at the site. If not available then 5 KVA Power backup/ Generator shall be arranged.
- h. Public Address System & Mega Mike shall also be provided at the site for public announcement & relief work.
- i. Cell phones communication shall also be used for exchange of information for reporting & seeking relief. Payments for new cell phone and CUG required if any shall be made from the Station Earnings.
- j. V-SAT communication shall also be installed at site for communication from site.
- k. The nominated telecom JE/SSE must be fully trained in setting up handling and troubleshooting the satellite phones at the disaster site.
- l. Competent staff shall nominate & extend communication facility with various officials & agency as per the site requirement.

21.8.5 EMERGENCY HELP LINE BOOTH:

- a. Help line Enquiry Booth with two BSNL lines and Railway telephones shall be opened at all important stations enroute of the affected trains.
- b. One FAX machine, Photocopier and PC with internet connection and printer should also be provided at Help line Enquiry Booths. These should also be kept pre-wired so that they can be energized at a very short notice.
- c. Stations at which such arrangements are to be made and telephones which are to be utilized should be identified by Sr. DSTE with the approval of DRM.
- d. Working of emergency help lines number 1072 & 182 shall be monitored round the clock.

21.8.6 OFFICERS TO ACCOMPANY GM IN GM SPECIAL:

- a. Head Quarter Emergency control and S&T HQ Control will inform the CSTE, CSE and CCE as soon as the information about disaster/serious accident is received.
- b. CSTE and in his absence CSE/CCE, from HQ will proceed to accident site with disaster special along with officials/staff as nominated by CSTE/CSE/CCE.
- c. S&T HQ Control will also inform the Dy.CSTE/sig., Dy.CSTE/HQ and SSE (Tele) to monitor the emergency communication office & system of exchange of information with HQ, Railway Board and division with site.
- d. Satellite phone of HQ and of concerned division will be carried in disaster special by at least one JE/SSE-Tele and one TCM/WTM.

21.8.7 OFFICERS FROM DIVISION TO VISIT SITE:

- Sr. DSTE or ADSTEs should proceed to site of accident along with requisite JE/SSE/Tele and TCM/WTM will accident special.
- Sr. DSTE of division shall ensure coordinate the communication facilities with HQ, division & site & Railway Board.
- Sr. DSTE of the division will also ensure to load a Fax machine and computer with dongle for GPRS connectivity in the disaster special.
- Sr. DSTE of the division shall also liaison with other communication service providers to get best of the communication services at site.

21.8.8 LIST OF SATELLITE PHONES AVAILABLE WITH NWR:

Divisions	ID NUMBER OF SATELLITE PHONES			REMARK
	VOICE	FAX	DATA	
AII	00870-764461532	00872-764461533	00870-764461534	Test Room AII
	00870-763095986	00870-763095987	00870-763095988	Test Room AII
	00870-764627864	00870-764627865	00870-764627866	At UDZ
BKN	00870-763095686	00870-763095687	00870-763095688	Test Room BKN
	00870-764128639	00870-764128640	00870-764128641	At HSR
JP	00870-763095694	00870-763095695	00870-763095696	Test Room JP
	00870-763095989	00870-763095990	00870-763095991	ART-JP
JU	00870-764457881	00870-764457882	00870-764457883	Wireless Office JU
	00870-764457885	00870-764457886	00870-764457887	ART-JU
NWR HQ	00870-763945627	00870-763945628	00870-763945629	At NWR HQ Exchange

Note: All calls made through Satellite Phone will be ISD calls & therefore dialling for India shall start with 00 or +91 followed by STD code of subscriber number.

21.8.9 VSAT & WLL Exchanges are provided in the following ARTs & ARMEs

SN	Div.	Gauge	Station	Facility	Class of ART	WLL Exchange	Type/Make of Exchange	VSAT
1	AII	BG	Abu Road	ART	A	Available	Siemen's	Provided
2	BKN	BG	Lalgarh	ART + ARME	A	Available	Ericsson	Provided
3	JP	BG	Jaipur	ART + ARME	A	Available	Siemen's	Provided
4	JU	BG	Jodhpur	ART + ARME	A	Available	Siemen's	Provided

21.9 Disaster Management: Safety deptment

Check list for the Divisional Safety Officers Subsequent to an Accident

S. No.	Item
1	Immediately rush to the accident site by the first available means along with Safety counselors.
2	Speak to Guard/Loco pilot to understand the sequence of events and assess the extent of damages' the exact number of vehicles affected with their stenciled numbers. Also Guard may be asked to take pictures with their mobiles and sent them through whatsapp.
3	Arrange to rush the relief teams available with the Railways.
4	Check whether Station masters on adjacent stations, Control and Medical staff have requisitioned for local medical help and ambulances.
5	Seek assistance of NDRF and other Government/ Non-government organizations if required.
6	Assess the site conditions and if needed order for additional rescue teams.
7	Establish a Unified Command Centre (UCC)and arrange to man it by a safety counselor.
8	Arrange to establish telephonic communication at the site.
9	Preserve all clues and evidences regarding probable cause of accident .
10	Arrange to record joint observations/ measurements at the site by the senior subordinates.
11	Should check for any speed restrction at the location and any abnormality reported by previous trains crew.
12	Arrange to maintain log of events at the site and relay to divisional emergency cell at regular intervals.
13	Relay Prima Facie cause in consultation with officer in-charge within a reasonable time.
14	Ensure that in UCC details of passengers admitted is maintained Hospital wise.
15	Relay probable restoration time in consultation with officer in-charge within a reasonable time.
16	Arrange to create Accident ID in SIMS and update all the relevant fields at regular intervals.
17	Arrange for live feed through VSAT, collect Arial pictures of the accident and upload the photos/video in SIMS.

Principal Chief Safety Officer Shall ensure the following.

S. No.	Item
1	Be in constant touch with divisional officers and Railway Board emergency cell. Shall ensure that above actions are carried out by divisional safety officers.
2	To seek for additional assistance from adjacent Railways and other Government/ Non-Government agencies, if needed.
3	Ensure that HQs emergency cell is manned by a Dy. CSO.
4	Ensure that all the details of the accident are conveyed to RB emergency cell hourly.
5	Ensure that all the relevant details are filled up in the SIMS

CHAPTER 22

Managing Crowd

22.0 Guidelines by NDMA.

National Disaster Management Authority (NDMA) has issued a guide for administrators and organizers of events and venues for managing crowds in 2014. The scope of the guidelines involves study of past crowd disasters, framework for administrators to plan and manage events better, to provide practical guidelines to venue managers and event organizers etc.

22.1 Salient features of NDMA guidelines.

Important aspects of planning for events/places of mass gathering includes understanding the visitors, various stake holders and their needs, crowd management strategies, risk analysis and preparedness, information management and dissemination, safety and security measures, facilities and emergency planning, transportation and traffic management. One of the important points to be kept in mind is the demand and supply gaps. Depending on the type of event, venue and type of crowd expected proper signage have to be planned. Specific focus should be on fire, electrical and structural safety. NDMA has suggested the following guidelines on Incidence Response System.

- (i) Systematic and complete planning process.
- (ii) Clear cut chain of command.
- (iii) System of accountability for the incident response team members.
- (iv) Well thought out pre-designed roles for each member of the response team.
- (v) Effective resource management.
- (vi) System for effectively integrating agencies into the planning and command structure without infringing on the independence of the concerned agencies;
- (vii) Integration of community resources in the response effect and
- (viii) Proper and coordinated communications set up.

22.2 Crowd Control and Management

- (i) For effectiveness in this, RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities. Chapter 10 (Maintenance of Public Order and Tranquility) of the Criminal Procedure Code (Cr.P.C.) Part-A deals with 'Unlawful Assemblies'. Legal procedures are outlined in Sections 129 to 132 of the Cr.P.C. for dealing with Unlawful Assemblies. These provisions empower Members and Officers of Armed Forces (RPF is an Armed Force of the Union) to deal with Unlawful Assemblies.
- (ii) One of the intelligent video analytics to be incorporated in the Integrated Security System is related to signal for crowd density within station premises when it exceeds the prescribed limit. This will enable RPF personnel and railway authorities to get timely information when heavy crowd builds up within station premises and plan follow-up action. Pictures stored on CCTV system will be of immense help in identifying miscreants and in ensuring effective legal action.
- (iii) We should prescribe preventive protocols, when laid down footfalls defined separately for important stations become extraordinarily high, as during Melas or other exceptional situations. It may not be out of place to ban all commercial vending and parcel handling on such occasions, supplement exists if possible, and bring more area under illumination.
- (iv) It is important to press upon the State Governments to give an approximate indication of the number of persons likely to reach Railway stations in the days when rush is

expected. Even more important is the number of such persons reaching each Railway station within a one to two hour time slots. Unless this information is given, it would not be possible for Railways to plan special trains. The OD flows of the Passenger are very important to plan destination wise running of special trains. It may be kept in mind that often the Inward and outward passenger traffic is not equal; there are wide variations. Further the inward rush comes in a staggered and spaced interval; the outward rush goes back at one go. It would be essential for the Zonal Railway or Division to impress upon the State Government (or the District Magistrate) in writing of their peak capacity to clear rush, as also they can do so only direction wise. The District Administration has to regulate and control the entry of more than this number beyond which (in 1-2 hourly slots) the Railway would be unable to evacuate.

22.3 Crowd control and Management of rush at Railway Stations during festivals:

- (i) Specific defined areas of jurisdiction for crowd control and duties assigned to GRP/RPF and the city Police needs to be placed on record much before the expected days of rush. Close coordination has to be maintained between the 3 wings of Police/Protection Force RPF and Civil Police, GRP and RPF) and areas of responsibilities well defined.
- (ii) The car and other vehicle parking facility at a station where a terrorist strike is expected may be discontinued; sale of Platform Tickets can also be banned for short period of time. RPF and GRP personnel deployed on each platform will monitor crowds and rush build up in the circulating areas, booking windows, station platforms and mainly on the FoBs. Special teams of commercial staff will liaise with the RPF/GRP and relay 2/4 hourly position to a centralized location viz. commercial control who will advise the need for running of special trains to specified destination to the operating departments control room.

22.4 Crowd Management at site of accident

- (i) The first problem at an accident site is that of surging crowds. Carrying out any kind of rescue and relief operation becomes next to impossible due to crowd. Railway men who try to undertake any kind of rescue and relief work become victims of mob fury.
- (ii) Cordon off the site and prevent unauthorized entry of outsiders.
- (iii) Segregate the area of accident by putting up temporary barriers using nylon ropes or any other make-shift device available at the scene so that outsiders do not disturb the site or hamper rescue operations.
- (iv) These barriers should be at quite some distance away from the track, so that UCC, CAC and LCCs are inside the cordoned off area.
- (v) Provide barricade and ask for additional force to control crowd during VIP visit.

22.5 Role of responsibility of Zonal Railways/Divisions

- (i) Depending upon the past experience Zonal Railways/divisions should identify events of mass gathering over their system. The events can be of periodic in nature or one time events where mass gathering of passengers is expected in the station which is beyond the normal capacity that can be handled at that station.
- (ii) Concerned Zonal Railway/division should have a close coordination with the organizers and law enforcement agencies to understand crowd arrival and departure, their numbers for each such event.
- (iii) Railway administration should identify the threats, assess the risk and plan accordingly. Based on the past experience a coordinating officer should be nominated for better planning and execution crowd management at the station. He should be

designated as incident commander and shall be overall in charge of that particular station. He shall be assisted by staff drawn from the respective departments to discharge his/her functioning

- (iv) It is, however, essential that the District Magistrate (Dy Commissioner) or the Civil Police (Senior Superintendent of Police) provides advance information to the Railways (DRM) of the dates of expected rush; and also, the volumes of rush (including some rough assessment of direction wise destination) with a break up of time periods of 1-2 hours slots of the amount of rush in each such slots.

22.6 Following measures are taken for Crowd Management during Mela period & festive seasons.

- (i) Based on hourly UTS booking the direction wise requirement of special train are worked out so that operating department is given demand for festive season/Mela special trains.
- (ii) Apart from deployed of reservation staff, ticket checking staff, scout & guide, civil defiance personnel at festive and Mela special stations for guidance the passengers.
- (iii) Set-up monitoring cell for monitoring of passengers movement & arrangement of Special train accordingly.
- (iv) First-Aid facility at stations & availability of Ambulance at stations.
- (v) Set-up of various control rooms at Mela & festive railway stations.
- (vi) The information of special trains are given through Public Address
- (vii) System as well as display at enquiry of control rooms located at important stations.
- (viii) Adequate arrangements to ensure the cleanliness at platforms, waiting halls, toilets & tracks etc.
- (ix) Intensive ticket checks are conducted alongwith RPF & GRPF to curb the activity of anti-social elements.
- (x) Adequate number of stretchers and wheel chairs are made available at the Mela & festive stations.
- (xi) Restriction on cross movement of trolleys from one end of the platform to another end.
- (xii) Provision of coach Guidance system and train display boards at Major & important stations. Provision of CCTVs at entry/exit points at A-1 & A category stations. Additional booking counters are opened to facilitate booking of passengers.
- (xiii) Provision of adequate passenger amenities like seating arrangements, catering stall, water, toilets, sign boards, retiring rooms, waiting room etc.
- (xiv) Display of important phone numbers at prominent places at mela and festive station.
- (xv) Proper stacking of parcel packages at the platforms for smooth Movement of passengers

22.7 CROWD MANAGEMENT PLAN-

National Disaster Management Authority (NDMA) has prepared ‘Suggestive Framework for Preparation of Crowd Management Plan for Events/Venues of Mass Gathering’ and a working Paper for Preparation of Crowd Management Plan, titled ‘Managing Crowds – A Guide for Administrators and Organizers of Events and Venues’.

- (i) These documents would enable state governments / local agencies and the administrators/organizers of events and venues of mass gathering to prepare appropriate guidelines and plan for effective and efficient crowd management.

- (ii) For better effectiveness, RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities. One of the intelligence video analytics to be incorporated in the integrated Security System is related to signal for crowd density within station premises when it exceeds the prescribed limit. This will enable RPF personnel and railway authorities to get timely information when heavy crowd builds up within station premises and plan follow-up action. Pictures stored on CCTV system will be of immense help in identifying miscreants and in ensuring effective legal action.
- (iii) Planning provides a methodical way to engage all stakeholders in thinking through the life cycle of a potential crisis. determining required capabilities and establishing a framework for roads and responsibilities, taking end objectives into consideration, as a supplement to the national guide on “Managing Crowe at events /Venues of Mass Gathering” issued by NSMA, this document provided a quick reference and outline on preparation risk informed planning process. The concise framework navigates the planning process through a mix of instructions describing the content that each section might have as defined in national guide document.
- (iv) This document suggested that the state Government may formulate guidelines for management of “events/ venues of mass gathering” with a cross reference into SDMP/DDMPs along with description on support mechanism with roles and responsibilities defined. State having gridlines on mass gathering events/ venues may review their existing guidelines/ plan keeping national guide into consideration.
- (v) During festivals or events attracting mass gathering- railways, roadways and airways etc, may experience unexpected temporary surge in number of people at such locations. Agencies responsible for operation and management such places would need to include” crowd” as one of the hazard while formulating strategic plan for public safety and implement special arrangement necessary for managing surge in number of people at railway stations, bus terminals and airports.
- (vi) Framework suggested in this document paves way in formulating public safety plan by agencies like railways, but transport and airways. These plans are to be developed in consultation with local authorities and event administrator/Organizer. Different event/ venues may have different hazard profile and hence resources requirements will not be uniform. Hence this may be used as a framework and not as a template, suitable changes, are required, may be made in the contents.

22.8 Guidelines for Establishment of Emergency Operations Centre:

- (i) This centre will by far possible, be near to the vicinity of the subject it is going to control.
- (ii) The centre should be in a safe area where it is not affected by any type of disasters, both man-made and natural, so that it can exercise control over its task under any condition.
- (iii) A Grid Map of the entire area under jurisdiction will be prepared to facilitate accuracy in pinpointing the troubled area and activate appropriate response.
- (iv) This map will contain all relevant data like position of volunteers/police. Ambulance, fire services, medical emergency room, ticket location etc.
- (v) All the staff involved in this activity will have a particular call sign and the grid map person. This will give them leverage in pre-empting a particular activity that ensures safety of the crowd or if they are nearest to the spot. It will aid them in initiating corrective action and feedback to the control centre.
- (vi) This centre will exercise positive control over the crowd movement to and from the event venue.

- (vii) This centre will not act under pressure of any sort from any individual or agency requesting speedy access to event/venue. At the time, it will exercise total discretion in allowing the same only if doing so may lead to safety and security concerns.
- (viii) The centre will be the hub for information flow about the crowd movement both up and down.
- (ix) All emergency support services will be coordinated from this centre.
- (x) This centre will exercise direct control over the already parked ambulances, fire services and regulating their movement, in and out of the disaster prone area.
- (xi) This centre will pre-validate and decide the level & distance of accessibility of emergency services in the disaster area to avoid congestion and quick turnaround, there by speeding up the movement of cases and vehicles.
- (xii) The centre is also responsible for validating the main routes for crowd movement and alternative routes (marked as standby for ingress and egress).
- (xiii) The centre will exercise/regulate the positioning of food stalls, public facilities, watering points, rest areas and display systems for easing the flow of crowd and their anxiety level.
- (xiv) The entire communication network i.e. the public address system, wireless setup, display system etc. will be controlled by a dedicated team under the supervision of one competent person, who will in turn report to the chief of Emergency operations Centre.

22.9 List of mass gathering during Melas over NWR:

Division	Name of Stations identified	Name of Mela	Duration in Days	Month
Ajmer	Ajmer	URS	15 Days	March/April
		Pushkar mela	05	Kartik Month
	Pushkar	Pushkar mela	05	Kartik Month
	Mangliyavas	KalpVraksh Mela	01	Amavas in Savan
	Kapasan	Hazrat shah Urs	03	November/December
	Nathdwara/Mavli	Shrinath ji Mela	02/02	October/November
Bikaner	Gogmedi/Sadulpur	Gogmedi Mela	30	August/September
	Kolayat	Kolayat	05 Days	November
Jaipur	Bandikui	Mehandipurbalaji (Holi, Hanuman Jayanti and Deshara)	03	March
			03	April
			03	September/October
	Ringus	Bairon ji Khatushyam ji		
	AsalpurJobner	Jobner Mata		
	Jeenmata	Goriyan	09	
	Chauth Ka Barwara	Chauth ka Barwada	03	August
	Isarada	Shivad Mela	03	March
	NavalGarh	Lohargal	04	August
		Ramdev ji	04	August/September
Jodhpur	Ramdevra	Ramdevra	09	August

CHAPTER 23

CRISIS MANAGEMENT PLAN – CMP

23.1 Difference between a Crisis and Disaster:-

A Crisis indicates either an impending calamity, or the occurrence of an incident which would adversely affect the society and human population. A Disaster is a much bigger occurrence of an event which would cause large scale devastation, damage to property and loss of human life etc. While a Crisis may or may not turn into a Disaster, the opposite is normally true, but with the condition the crises situation is more in the initial stages.

23.2 Crisis -Types:-

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

- (a) National level crisis developed in the Railways and is specific to railways, which is to be managed with the help and assistance of other Ministries. All India Railway Strike is only such crisis identified in the CMP 2007 for which Ministry of Railways is the nodal ministry.
- (b) National level crisis affects the country including Railways and different ministries /departments have to help and assist each other based on their strengths. Cyclone, Earthquake etc. can be such crisis where Railways have to assist by running special trains. Ministry of Home Affairs has to assist railways under security related crisis situations like sabotage, bomb blasts, etc.
- (c) Crisis situation which is not a national level crisis affects Railway system, which is to be managed with the help and assistance of other Ministries/departments. Chemical explosion in train, fire in train, train falling in river, etc may be such situations.
- (d) Crisis situation which is not a national level crisis affects Railway system, which can be managed with the help of internal resources from the Railways only.

To deal with the crisis situations, the following committees shall be activated:-

- (a) National Crisis Management Committee (NCMC)
- (b) Central Management Group (CMG) and
- (c) Zonal Management Group (ZMG)

23.3 NATIONAL CRISIS MANAGEMENT COMMITTEE (NCMC):

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

1	All India Railway Strike	DG/HR Member Traction & Rolling Stock (Alternate)
2	Terrorism/Security related Crisis	DG/HR Member Transport & Business Development (Alternate)
3	Natural Factor(s) related Crisis	Member Infra. Member Transport & Business Development (Alternate)
4	Major Train Accidents	Member Transport & Business Development Member Traction & Rolling Stock (Alternate)
5	Crisis where Railways have to Help other ministries	Member Transport & Business Development DG/HR (Alternate)

23.4 CENTRAL MANAGEMENT GROUP (CMG):

The CMG is the Executive Authority responsible for dealing with the crisis and shall work under the board guidelines and directives issued by NCMC. It shall be in constant touch with the NCMC, on the other hand and the concerned Zonal Management Group on the other. In addition to the concerned officers of the Railway Ministry, nodal officers from the concerned Ministries should be contacted if help is needed from the other ministries for effectively dealing with the various crisis situation; e.g. Ministry of Defence should be contacted for air support and/or for expert help like divers, boats etc. However, Control Room of MHA should be kept informed of the developing situation for assistance as warranted. **Refer Crisis Management Plan of Railway Board** for list of Nodal Officers of the MHA and that of their Control Room. In case of difficulty in getting to the nodal officer of the concerned ministry, Control Room of MHA can be contacted.

23.7 ZONAL MANAGEMENT GROUP (ZMG)

ZMG is same for all types of crisis. The Zonal Management Group (ZMG) shall be established at the Zonal Railway Headquarters and would comprise of the following Officers of the Zonal Railway Headquarters.

(i)	Additional General Manager	:	Convenor
(ii)	Principal Chief Engineer / Chief Engineer (Coordination)	:	Member / Alternate Convenor
(iii)	Principal Chief Security Commissioner	:	Member
(iv)	Principal Chief Personnel Officer	:	Member
(v)	Principal Chief Operations Manager	:	Member
(vi)	Principal Chief Mechanical Engineer	:	Member
(vii)	Principal Chief Electrical Engineer	:	Member
(viii)	Principal Chief Signal & Telecommunication Engineer	:	Member
(ix)	Principal Chief Safety Officer	:	Member
(x)	Principal Chief Public Relations Officers		Member

The Zonal Management Group (ZMG) will assemble in the Disaster Management / Emergency Control Room of the Zonal Railway Headquarters and will keep in touch with CMG till the termination of the crisis.

PREPARDNESS FOR NATURAL DISASTERS

24.1. Long-term Preparedness.

Natural disasters that have serious bearing on the Railway have been identified as Floods, Cyclones and Earthquakes. While, in case of floods and cyclones, an effective system of forecasting of the impending disaster does exist, it is impossible to forecast an earthquake. Therefore, any analysis of earthquake preparedness will not be very meaningful. However, the preparedness for floods and cyclones, will be such that, it can deal effectively with post earthquake situation.

In the following paras, the line of actions by various departments in case of a disaster has broadly been outlined. Each department, Division should draw out its own line of action elaborately, on the basis of these guidelines, taking in to account all aspects of disaster management.

(a) Identification of the risk Zones:-

Civil Engineering department, in co- ordination with civil authorities, CWC & IMD, shall identify the areas prone to natural disasters, such as floods, cyclones, and earthquakes. A detailed inventory of major infrastructures, such as tracks, bridges, telecommunications, structures etc. which may be affected, shall also be prepared.

(b) Monitoring the quality of constructions:-

Civil Engineering department will review the quality of constructions of tracks, bridge and foundations of houses and ensure that all repairs and new constructions take in to account the proneness of the area to a particular natural disaster. The department shall come out with technical guidelines for structural preventive measures and quality control. Mandatory for all areas vulnerable to floods, cyclones and earthquakes.

24.2. Forecasting of Disaster:-

Advance warning giving adequate notice period is available in case of floods and cyclones. The flood and weather forecasting messages are published in flood bulletins daily by the Chief Engineer of the concerned state in co - ordination with C.W.C. (Central Water Commission) and I.M.D. Similarly cyclone warning message are also issued by the I.M.D. (Indian Meteorological Department)

Arrangements exist with the Meteorological Department Govt. of India for issuing weather warning messages, from its offices situated at Delhi, Jaipur, Ahmedabad Jodhpur Bikaner and Ajmer to the chief controller of all the divisions of NWR apart from central emergency control at GM office NWR. Similar arrangement may be worked out by the Chief Bridge Engineer NW Railway, with the State authorities for communication of floods warning messages.

All India Radio, Doordarshan, Private T.V. Channel also broadcast floods cyclones messages frequently to give regular up date of the situation.

Information regarding forecasting of heavy rain and cyclone can be obtain directly from the website of the India meteorological department. The address of the official website is— www.imd.gov.in. Similarly, information regarding flood warning can be obtained from the official website of central water commission (CWC).

The address is – <http://cwc.nic.in>

24.3 Preparedness after forecasting of the disaster:-

Opening of disaster Control Rooms:

Immediately on receiving warning message, of a severe flood or cyclone; Emergency controls shall be opened at the Divisional Control offices and Emergency Control at GM office NWR, Jaipur. These control rooms shall be manned round the clock by one senior officer from each of the following departments.

- (i) Operating
- (ii) Commercial
- (iii) Civil Engineering
- (iv) Signal & Telecom. Engineering
- (v) Mechanical Engineering
- (vi) Electrical Engineering
- (vii) Medical
- (viii) Store.

These Control Rooms will have state of the art communication systems as well as a channel of communication with C.W.C./I.M.D. and State agencies so that data can regularly be exchanged.

24.4 Action taken by departments:

24.4.1 Action to be taken by Commercial department:-

Enquiry offices should be opened at important stations with effective communications systems so as to keep up to date relevant information and disseminate this information through the public address system.

Arrangement shall be made for food, water, tea and snacks for stranded passengers at suitable places. Arrangement shall be made, in co-ordination with transportation department, for transshipment of passengers if necessary.

24.4.2 Electrical Department:

Electrical Department will provide stand by generators at strategic locations, (With adequate fuel) such as hospitals, telecommunication installments etc. It should also keep essential items ready at specific Locations for any emergency.

24.4.3 Action to be taken by Engineering Department:

- (i) A train loaded with the essential items like cinders, boulders, quarry dust, empty cement bags filled with earth/sand etc will be ordered to run in consultation with traffic department to stations close to the areas likely to be affected.
- (ii) Patrolling of the vulnerable locations shall be intensified.
- (iii) Empty flat wagons (BRH/BRN) will be placed at suitable siding (Preferably in goods platform lines with loops) to enable quick loading of earth moving machinery.

24.4.4 Actions to be taken by the Mechanical Department

- (i) ART/ARME/ARMV staff and crane driver will be alerted so that they can be rushed to duties with minimum delay.
- (ii) Drinking water and food items shall be provided on ART/ARMEs for the rescue staff.
- (iii) All road vehicles irrespective of departments to which these belong, including jeeps, cars, light and heavy material carrying vehicles shall be kept in readiness at nominated places with adequate fuel and two drivers to move man/ materials /equipments at short notice.

24.4.5 Medical Department:

- (i) Ensuring adequate stock position of essential medicines- Health department will review the stock position of essential medicines, disinfectants, first- aid materials and other essential items and move the stock to the divisional hospitals/ health units and also to vulnerable points.
- (ii) Health and civil engineering departments will take measures for prevention of epidemics with facilities like drinking water, sanitation and proper drainage and take adequate steps for disinfection of water bodies in the post- disaster situation.

24.4.6 Operating Department:

- (i) Sr. DOM of the concerned divisions will make a rough assessment of requirement of essential staff and their area of deployment and advice HQRs and central emergency control/ Jaipur accordingly.
- (ii) SMs of the area which is likely to be affected will ensure storage of adequate drinking water, functioning of petromax lamps, adequate availability of rechargeable torches, match box, fuel for generator sets, functioning VHF sets, charging of stand by batteries and adequate First Aid equipments, in co ordination with the officials of concerned departments.
- (iii) SM will also ensure that stabled wagons/ coaches/ loads at their station which are likely to roll are chained and sprigged. Special instructions as per station working rules (NWR) should be strictly followed and confirmed to divisional control.
- (iv) In order to avoid any mishaps or damage to passenger carrying trains and to avoid marooning of passengers, the COM or an officer acting on his behalf will issue instructions, to all concerned for necessary diversions, cancellation or regulation of trains running through the area likely to be affected by flood/ cyclone.
- (v) Coaching train should be suitably controlled/ diverted. The controlling of trains should as far as possible, be done where adequate water supply, lighting, catering and medical facilities are available.
- (vi) All trains, which are caught in the affected area shall be immediately controlled. Action shall be taken by SM/Guard and Loco pilot of such trains as per SR. 2.11. All such instructions should be communicated to CPRO for adequate publicity.

24.4.7 Telecommunication Department:

Telecommunication Department will provide adequate facilities of wireless communications, satellite phones and fail-safe telephone lines in disaster prone areas for ensuring effective communications during disaster. For this purpose, the facility of mobile telephones and WLL to be explored.

24.4.8 Action to be taken by Security Department.

DSC/Dr.DSCs will nominate security personnel at the following places-

- (i) To accompany “relief material” carrying trains when ordered.
- (ii) To help commercial & station staff of major stations to handle public enquiries.
- (iii) At each station when any passenger carrying train is regulated.
- (iv) On heavy vehicles carrying relief materials.
- (v) At major restoration sites after the disaster.

24.5 Nomination of officers to man strategic Locations:-

- (i) Each PHOD/Concerned DRM will also nominate the officers to camp at important wayside stations. Such monitored officers will be in readiness to proceed to and camp at given stations at short notice.
- (ii) The staff & officers of Engineering, Electrical and S&T departments will be earmarked at Divisional and HQs level and alerted so that they can precede to co-ordinate their respective restoration works at a short notice.
- (iii) Light motor trolleys should be arranged and kept in readiness at strategic stations. At least one officer and a few staff should be nominated for each. They should be provided with VHF sets, Satellite phones and mobile phones so that they can accomplish the mission of physically covering the entire affected area and can give “First information of damages and assistance required” promptly. Competent and experienced officers & staff should be nominated for the job.

24.13 Monitoring cells

Committees comprising heads of the following departments will be constituted both at Zonal and Divisional level to ensure proper co-ordination during natural disaster.

- | | | |
|-----------------|------------------------|-----------------------|
| (i) Medical | (ii) Civil Engineering | (iii) Operating |
| (iv) Commercial | (v) Mechanical Engg. | (vi) Electrical Engg. |
| (vii) S&T Engg. | (viii) Stores | (ix) Safety |

This committee will be responsible for:-

- (1) Detailed planning of movement of food and other relief materials and essential medicines.
- (2) Keeping effective co-ordination with civil/military authorities and voluntary organizations for rescue operations.

24.14. Action to be taken by division and HQ

24.14.1 Action to be taken at HQ level

- (i) On receiving the first information, all Zonal Disaster Management committee (ZDMC) Members will assemble in emergency control room.
- (ii) ZDMC, in-charge will contact to State Disaster Management Committee Members.i.e. Chief Secretary of Rajasthan, Railway Board and NDRF etc.
- (iii) ZDMC in-charge will contact with adjoining Railways/adjoining Civil Authorities if require.
- (iv) ZDMC in-charge will contact NGOs, Civil Defence Authorities and Private parties.
- (v) Zonal Disaster Management Committee will monitor the functioning of the concerned Division and assist them.

24.14.2 Action to be taken at Divisional level (DDMC)

- (i) All Members of Divisional Disaster Management Committee will assemble in Emergency Control Room; DRM will also inform to NWR HQ & Rly Board of NDRF if services are required to meet the Disaster.
- (ii) DDMC In-charge will inform District Collector, SP, CMHO, Fire Station Officers and other concerned Authorities.
- (iii) In case of Mass casualties In charges of all the Civil Hospitals, Private Hospitals should be asked for Medical Help.
- (iv) Services of NGOs and Civil Defence, Home Guards should be asked.
- (v) DRM/ADRM and other concerned Officers should immediately rush to the site.
- (vi) In case of Transportation is required by Civil, Army, Police Authorities of the States the same should be arranged.

24.15 POST DISASTER MANAGEMENT

24.15.1 Meeting of Disaster Management monitoring cells-

On receipt of the message of a disaster, the disaster management monitoring cells at divisional and zonal head quarters level, will meet immediately to take stock of the situation and monitor the line of actions to be taken.

24.15.2 Assessment of the Damage

Immediately after the disaster the extent of the damage shall be assessed by the following means:-

- a) Motor Trolley survey by the nominated officers and staff.
- b) Assessment by nominated officers/ Staff by road vehicles where possible.

24.15.3 Information to the control

After the assessment, prompt information shall be communicated through VHF sets/Mobile Phones/ Satellite phone to the control mentioning the following:-

- a) Nature of damage / obstruction to track with location.
- b) Possible method/ system for restoration.
- c) Resources required for restoration.
- d) Whether or not a light vehicle (e.g. Tower Wagon) or light engine or relief train can pass on the section.
- e) Likely time to clear the location by repairing the damage/ removing the obstruction.

24.15.4 Movement of Relief Trains for rescue, relief and restoration.

On receipt of first information from the affected site, all the relief trains on the section must be ordered and should be dispatched with full equipment and full complement of staff.

Responsible Railway officers should reach the spot where passengers are stranded on priority so as to organize water, food tea and snacks for the passengers.

If necessary the assistance of Air Force Authorities or Private Air operators shall be sought by DRM for airdropping of food packets or air-lifting of passengers to safer places.

Assistance of state authorities for boats, divers or fire brigade, shall be sought as per the requirement.

Medical team shall be moved on priority to places where there are injuries & casualties to passengers or Railway staff.

24.15.5. Restoration of line of Communication

After the relief and rescue operation, the next priority shall be the restoration of line of communications. On receiving the complete picture of damages from the site, each department shall chalk out its line of action accordingly.

The responsibilities of the departments are broadly outlined below:-

(i) Electrical Department:

Electrical department shall be responsible for providing temporary lighting arrangements through generator sets at strategic locations. They should co ordinate with State Electricity Authorities for restoration of power supply. Sufficient number of staff with materials, equipments and machinery shall be deputed for the restoration work.

(ii) Engineering Department

The Engineering department shall be responsible for quick restoration of un – obstructed train path (first single & then double .They should co-ordinate with civil authorities ,contractors ,private agencies ,stores and transportation departments for effective movement of men ,machinery, materials and equipments to the site. It

should also hire machinery or tools from civil authorities, contractors and private agencies if required.

(iii) Medical Department:

Medical department shall be responsible for taking all necessary steps to prevent epidemics at the affected sites. They should co-ordinate with civil engineering department to provide drinking water, good sanitation, proper drainage system so as to prevent infections, at the affected Railway Area.

(iv) Operating Department:

As soon as single line un obstructed path is restored the primary responsibility of the Operating department shall be to resume train movement. Sufficient number of train passing staff shall be deployed at nominated stations for this purpose.

(v) Personnel Department

Personal Branch will be responsible for supervising the movement of materials for the Railway staff in co-ordination with concerned departments and agencies.

(vi) Public Relations Department

Wide publicity shall be given in press and media to attract voluntary organizations, individuals, NGOS & medical practitioners etc, so that their help can be enlisted.

The composition and timings of Relief Train movements shall be publicized.

(vii) S&T Department

Effective means of communications at strategic points shall be established for exchange of information. Restoration works of signals and interlocking should be under taken systematically.

(viii) Stores Department:

During restoration, Stores Department shall play a proactive role in making emergency purchases preferably by standing spot purchase committee and supplying the same to the user departments at sites. For such purposes a note counter signed/ signed by HOD/PHOD in HQ will be treated as a valid demand.

24.15.6. Emergency Purchases of Materials

- (i) Emergency demands placed through PHOD's notes shall be complied with by the store Department through a spot purchase committee. It is preferable to have spot purchase committees of SS,JAG and SAG levels, who will be authorized to make spot purchases for the same value as in case of the Tender Committee.
- (i) **Works, Contracts, single tender and hiring of machinery-**For restoration of traffic, single tenders may be awarded to the competent and experienced contractors who have sufficient capacity to mobilize machinery and materials with the prior approval of the GM, for the procurements of materials and hiring of machinery.

MANAGEMENT OF EARTHQUAKES

25.1 Nodal Ministry:-

The Ministry of Earth Sciences (MoES), as the nodal ministry will prepare the Earthquake Management Plan covering all aspects like earthquake preparedness, mitigation, public awareness, capacity building, training, education, Research and Development (R&D), documentation earthquake response, rehabilitation and recovery.

25.2 Preparedness by Railways:

- (i) RDSO has been assigned the job of collection of data and prepare a plan for developing the specification etc for new buildings and identify existing ones which need retrofitment. On the Zonal Railways and the Divisions the subject is to be coordinated by the PCE and Sr. DEN's.
- (ii) Outline/gist of RDSO action plan should be included in the DM Plan, for implementing by Zonal Railways, in a given time frame.
- (iii) Zonal Railways, may also keep the effect of Cyclones and Landslides in mind in such vulnerable areas while reviewing preparedness on each item covered in NDMA guidelines.
- (iv) RDSO has issued detailed guidelines on seismic design of Railway bridges in January 2015. Action to be taken by the field staff post-earthquake with regard to train operations and inspection of track/bridges as given below. Gist of these guidelines have to be incorporated in DM plan of Zonal railways/ Divisions.
- (ii) Zonal Railways will review their new projects as well as the existing infrastructure to fall in line with NDMA guidelines. The Action Plan, including the prevention and post disaster response for cyclones, is very similar as for floods. Zonal railways should also keep the effect of cyclones and landslides in mind while reviewing preparedness on each item covered under NDMA guidelines.
- (iii) A multi-disciplinary team comprising of various departments such as Civil, S&T, Electrical, Mechanical, Medical, Security, Personnel and Finance will be constituted for this purpose by the respective Zonal Railways. Sr.ED/CE/RDSO has been nominated by the Board to monitor this work. PCSOs will coordinate with PCEs and other concerned officers to see that necessary action is taken in a time bound manner which should be part of the disaster management plan of the railways both at the zonal and divisional levels.

25.3 Post Earthquake Operations and Inspections

The response of railway tracks and bridges to an earthquake would depend on distance from epicenter and nature of attenuation. The post-earthquake train operations in the region shall be cautiously started.

25.3.1 Operations

After an earthquake is reported, the operating department shall notify all the trains and engines within 150 km radius of the reporting area to either stop or run at restricted speed of 10 Km/h (depending upon intensity reported from the area) until magnitude and epicentre (and corresponding response level) have been determined by the Senior Divisional Engineer of the section. After determination of the magnitude and epicenter, response levels given in Table 1 and 2 will govern the operations.

Table – 1 Specified Radius of Different Earthquake

Earthquake Magnitude (Richter)	Response Level	Specified Radius
0- 4.99	I	No action
5.0 – 5.99	II	80 KM
6.0 – 6.99	III II	160 KM 240 KM
7.0 or above	III II	* *

*As directed by not less than the radius specified for earthquakes of magnitude between 6.0-6.99 of Richter scale.

Details of response level

Response Level	Details
I	Resume maximum operation speed. The need for inspections will be determined by Sr. DEN responsible for maintenance of P.Way. II
II	All trains and engines will run at restricted speed of 30 Kmph over all Major, Important and Girder bridges within the specified radius of the epicenter until inspections have been made by PWI, Asst PWI and ADEN and appropriate speeds established by consulting sectional Sr. DEN.
III	All trains and Engines within the specified radius of the epicenter must stop and may not proceed until proper inspections have been performed by PWI or Asst PWI or BRI or ADEN and appropriate speed restrictions established by consulting Sectional Sr. DEN for damaged bridges and other locations. On all important and Major bridges, before relaxation of the speed to normal, detailed inspection should be carried out by Sectional Sr. DEN and an Engineer deputed by CBE together.

25.3.2 Post Earthquake Inspection

The following list provides a general guideline for an inspection procedure:

(i) Track and Roadbed

During the post-earthquake inspection, following items shall be observed:

- Line, surface and cross level irregularities caused by embankment slides or liquefaction
 - Track buckling or pull apart due to soil movement
 - Offset across fault rupture
 - Disturbed ballast
 - Cracks or slope failures in embankments
 - Slides and/or potential slides in cuts, including loose rocks that could fall in an aftershock
 - Scour due to tsunami in coastal area
- Potential for scour or ponding against embankment due to changes in water course

(ii) Bridges

Following an earthquake, inspectors may need to travel by rail between bridges. River bed may get flooded, hence, to quickly reach the bearings; alternate access routes shall be made. In steel bridges following shall be observed carefully:

- Displaced or damaged bearings
- Buckled columns or bracings
- Stretched or broken anchor bolts
- Tension distress in main members or bracings
- Distress in viaduct tower
- Displaced substructure elements

Concrete bridge inspection shall include the following:

- | | |
|------------------------------------|-----------------------------|
| a) Displacement at bearings | c) Cracks in superstructure |
| b) Displaced substructure elements | d) Cracks in substructure |

Inspection team shall also look for items which may fall on track. At an ROB, attention shall be given to reduced span at bearings, damages to column and Restrainer system. If there area adjacent buildings to railway track, then such buildings shall also be inspected to ensure if they can withstand aftershocks. Inspection team shall also look for damages to the power lines passing over the track.

25.4 Summary of NDMA Guidelines on Earthquakes and Floods

Railway Infrastructure	Earthquake Proneness Review	Flood Proneness Review
• RailwayTrack Formation (incl. station Yards, bridges/culverts, ROBs/RUBs, etc. • Buildings housing signaling gears like RRI, SSI etc. • Buildings in open line maintenance work centres like loco sheds, Coaching depots etc. • Station buildings • Control room, other important office building, etc. • High-rise residential buildings, other important residential buildings • Railway hospitals	• 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. - Any other item that railway may like to add.	• New Construction: ○ Railway Station building 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 waterways 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 plains. ○ Making existing and new buildings and infrastructure capable of withstanding fury of floods. • Any other item that railway may like to add.

25.5 NDMA'S GUIDELINES -Do's & Don'ts

(i) What to Do Before an Earthquake

- a) Repair deep plaster cracks in ceilings and foundations. Get expert advice if there are signs of structural defects.
- b) Anchor overhead lighting fixtures to the ceiling.
- c) Follow BIS codes relevant to your area for building standards
- d) Fasten shelves securely to walls.
- e) Place large or heavy objects on lower shelves.
- f) Store breakable items such as bottled foods, glass, and china in low, closed cabinets with latches.
- g) Hang heavy items such as pictures and mirrors away from beds, settees, and anywhere that people sit.
- h) Brace overhead light and fan fixtures.
- i) Repair defective electrical wiring and leaky gas connections. These are potential fire risks.
- j) Secure water heaters, LPG cylinders etc., by strapping them to the walls or bolting to the floor.
- k) Store weed killers, pesticides, and flammable products securely in closed cabinets with latches and on bottom shelves.
- l) Identify safe places 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 bookcases or other heavy furniture could fall over
 - In the open, away from buildings, trees, telephone and electrical lines, flyovers and bridges
- m) Know emergency telephone numbers (such as those of doctors, hospitals, the police, etc)
- n) Educate yourself and family members.

(ii) Have a disaster emergency kit ready

- a) Battery operated torch with extra batteries
- b) Battery operated radio
- c) First aid kit and manual
- d) Emergency food (dry items) and water (packed and sealed)
- e) Candles and matches in a waterproof container
- f) Knife
- g) Chlorine tablets or powdered water purifiers
- h) Can opener.
- i) Essential medicines
- j) Cash and credit cards
- k) Thick ropes and cords
- l) Sturdy shoes

(iii) Develop an emergency communication plan

- a) 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.
- b) Ask an out-of-state relative or friend to serve as the 'family contact' after the disaster; it is often easier to call long distance. Make sure everyone in the family knows the name, address, and phone number of the contact person.

(iv) Help your community get ready

- a) 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.
- b) Conduct week-long series on locating hazards in the home.
- c) Work with local emergency services and officials to prepare special reports for people with mobility impairment on what to do during an earthquake.
- d) Provide tips on conducting earthquake drills in the home.
- e) Interview representatives of the gas, electric, and water companies about shutting off utilities.
- f) Work together in your community to apply your knowledge to building codes, retrofitting programmes, hazard hunts, and neighbourhood and family emergency plans.

(v) What to Do During an Earthquake

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

(a) If indoors

- DROP to the ground; take COVER by getting under a sturdy table or other piece of furniture; and HOLD ON until the shaking stops. If there is no table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, (such as lighting fixtures or furniture).
- Stay in bed if you are there when the earthquake strikes. Hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, load bearing doorway.
- Stay inside until the shaking stops and it is safe to go outside. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.

(b) If outdoors

- Do not move from where you are. However, move away from buildings, trees, streetlights, and utility wires.
- If you are in open space, stay there until the shaking stops. The greatest danger exists directly outside buildings; at exits; and alongside exterior walls. Most earthquake-related casualties result from collapsing walls, flying glass, and falling objects.

(c) If in a moving vehicle

- Stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.

(d) If trapped under debris

- Do not light a match.
- Do not move about or kick up dust.
- Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available. Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust.

(vi) What to Do After an Earthquake

- a) Keep calm, switch on the radio/TV and obey any instructions you hear on it.
- b) Keep away from beaches and low banks of rivers. Huge waves may sweep in.
- c) Be prepared to expect aftershocks.
- d) Turn off the water, gas and electricity.
- e) Do not smoke and do not light matches or use a cigarette lighter. Do not turn on switches. There may be gas leaks or short-circuits. Use a torch.
- f) If there is a fire, try to put it out. If you cannot, call the fire brigade.
- g) If people are seriously injured, do not move them unless they are in danger.
- h) Immediately clean up any inflammable products that may have spilled (alcohol, paint, etc).
- i) If you know that people have been buried, tell the rescue teams. Do not rush and do not worsen the situation of injured persons or your own situation.
- j) Avoid places where there are loose electric wires and do not touch any metal object in contact with them.
- k) Do not drink water from open containers without having examined it and filtered it through a sieve, a filter or an ordinary clean cloth.
- l) If your home is badly damaged, you will have to leave it. Collect water containers, food, and ordinary and special medicines (for persons with heart complaints, diabetes, etc.)
- m) Do not re-enter badly damaged buildings and do not go near damaged structures

MANAGEMENT OF FLOODS

26.1 Action Plan for Alignment, Location, Design and Provision of Waterway on Railways Embankments:-

Roads and Railway embankments cut across the drainage lines and may lead to increase in vulnerability of the area, through which they pass and to flooding and drainage congestion, if they are not properly aligned, located and designated. In-adequate waterway in the form of vents / culverts / bridges / causeways is another cause of increase in vulnerability to floods. Further, breaches in them may result in huge loss of life and properties. Insufficient height of rail embankments may result in overtopping and breaches. The safety of existing roads/railway embankments against floods will also be checked by the MOSRTH, MOR, MOD, NHAI, BRO and state governments / SDMAs / DDMAAs and if found inadequate, measures by way of increasing height and width and augmenting water way by constructing additional bridges / culverts / causeways or by adding more spans to existing ones.

26.2 Flood Forecast and Warnings:-

Forecasts (stage/inflow) are issued whenever the river stage at the Flash Flood site exceeds or is likely to exceed a specified level called warning level of the site which is fixed in consultation with the concerned state government. The warning level is generally 1 m below the danger level of the site. On reaching a critical point, the final flood forecasts are then communicated to the user agencies such as the concerned administrative and engineering authorities of the state / central governments including railways, defence and other agencies connected with flood protection and DM by special messenger / telegram / wireless / telephone / fax /e-mail. For Railways, early warnings are important for smooth movement of trains.

26.3 Action Plan:-

The following Action Plan should be followed by the Zonal Railway:-

- (i) Flood/weather forecasting in consultation with IMD and other agencies like CWC, State Government, local bodies etc.
- (ii) Development of system of collecting data using modern techniques, Monitoring of landslides, flood danger to bridges, bridge approaches causing interruption to traffic.
- (iii) Identification of flood prone areas, RAT, RAW and information prone to erosion/breaches and marking them on railways system map. Monitoring of behaviour of rivers which pose danger to railway embankment.
- (iv) Documentation of records of flood and breaches.
- (v) Flood Insurance of Railway properties – A pilot project to be taken by each Railway through help of suitable consultants.
- (vi) Mechanism for coordination with State Government and other Central Agencies on flood control and erosion etc.
- (vii) Sanction and execution of Anti Erosion works of track, formations, bridges etc.
- (viii) Improvement to water ways of bridges in track formation (if necessary) including sanction and execution of works.
- (ix) Development of Flood Shelters for staff and passenger at suitable locations in the areas prone to repeated floods.

- (x) Implementation of Bye-laws for buildings in flood prone areas including modifications of Works Manual.
- (xi) Training on Flood Management to officials in various Railway Training Schools and institutions by devising suitable syllabus.
- (xii) Emergency response team on floods.
- (xiii) Study of silting pattern resulting in reduction in reservoir/Dam's water holding capacity over years to forecast and extrapolate future impact on track due to over flow and need of additional waterway.
- (xiv) Study of changed water enactment area due to construction of highways, Dams.
- (xv) Study of changed rainy season month on a particular region
- (xvi) Emergency equipment and relief logistics.
- (xvii) Medical Preparedness Plan

26.5 Do's & Dont's

(i) What to do before a flood-To prepare for a flood, you should:

- a) Avoid building in flood prone areas unless you elevate and reinforce your home.
- b) Elevate the furnace, water heater, and electric panel if susceptible to flooding.
- c) Install "Check Valves" in sewer traps to prevent floodwater from backing up into the drains of your home.
- d) Contact community officials to find out if they are planning to construct barriers (levees, beams and floodwalls) to stop floodwater from entering the homes in your area.
- e) Seal the walls in your basement with waterproofing compounds to avoid seepage.

(ii) If a flood is likely to hit your area, you should:

- a) Listen to the radio or television for information.
- b) Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to move.
- c) Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.

(iii) If you must prepare to evacuate, you should:

- a) Secure your home. If you have time, bring in outdoor furniture. Move essential items to an upper floor.
- b) Turn off utilities at the main switches or valves if instructed to do so. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.

If you have to leave your home, remember these evacuation tips:

- a) Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- b) Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.

**MANMADE DISASTERS
MANAGEMENT OF CHEMICAL DISASTERS**

27.1 Rescue, Relief and Restoration Operations:

Railway's expertise in dealing with the mis-happenings like spillage, catching fire etc. of these dangerous goods is very limited. It is therefore imperative that the respective zonal railways will develop and nurture coordination with those agencies and 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. 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.

27.2 Preventive Action the Rail Route of Movement of Hazchem

Divisions located on the "Hazchem Rail Transportation Highways" have to be in close touch with specialized services available with IOC/GAIL and Pvt. Chemical Factories and NGOs to be able to call upon their men and fire fighting fire extinguishers etc at short notices.

Vulnerability on this Highway needs to be reduced by the removal of Jhuggies from close to the track (say till at least 30 m away). This is essential as in the case of derailment of a Naptha loaded (or even POL Tank Wagon etc) train, there is a high possibility of spillage of the dangerous products and its spread over a wide area. These products are highly prone to catch fire and even explode, resulting in fire in the Jhuggies etc

27.2.1 Stationary Storage of Dangerous Goods

- a) 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.
- b) These places of storage of dangerous goods must have sufficient fire fighting equipments and trained man power to deal with initial phases of fire.
- c) All such locations of storage must also have the road access so that fire tenders can approach in the event of any major fire.
- d) Adequate security arrangements should be made at these locations to prevent any outside interference which may cause any untoward incident.
- e) The facilities for storage of petroleum products by the Railways should conform to the Petroleum Rules 2002 notified in the Gazette of India.
- f) In addition to the railways own storage, there are major storage points of dangerous goods adjacent to the railway infrastructure under the private ownership.
- g) 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.
- h) Ensure system of checks of safety measures at loading and unloading
- i) Ensure safety fittings in Tank Wagons is proper.
- j) Ensure no tank wagon is released in the railway system without ensuring fitment of all safety valves including dummy plugs.
- k) Ensure availability of Emergency kit for handling leakage of gases in transit.

27.2.2 Rescue Relief and Restoration Operations

- a) Railway's expertise in dealing with the mishapenings like spillage, catching fire etc. of these dangerous goods is very limited.
- b) It is, therefore, imperative that the respective zonal railways will develop and nurture coordination 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.
- c) 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.
- d) 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.
- e) Impart training to all frontline staff

27.3 Disaster-Dos and don't

Chemical, being at the core of modern industrial systems, has attained a very serious concern for disaster management within government, private sector and community at large. Chemical disasters may be traumatic in their impacts on human beings and have resulted in the casualties and also damages nature and property. The elements which are at highest risks due to chemical disaster primarily include the industrial plant, its employees & workers, hazardous chemicals vehicles, the residents of nearby settlements, adjacent buildings, occupants and surrounding community. Chemical disasters may arise in number of ways, such as: -**Process and safety systems failures**

- (i) Human errors
- (ii) Technical errors
- (iii) Management errors
- (iv) Induced effect of natural calamities
- (v) Accidents during the transportation
- (vi) Hazardous waste processing/ disposal
- (vii) Terrorist attack/ unrest leading to sabotage

27.4 Precautions to be taken during and after the Chemical (Industrial) Accidents

- (i) Do not panic, evacuate calmly and quickly perpendicular to wind direction through the designated escape route
- (ii) Keep a wet handkerchief or piece of cloth/ sari on face during evacuation
- (iii) Keep the sick, elderly, weak, handicapped and other people who are unable to evacuate inside house and close all the doors and windows tightly.
- (iv) Do not consume the uncovered food/ water etc open to the air, drink only from bottle
- (v) Change into fresh clothing after reaching safe place/ shelter, and wash hands properly
- (vi) Inform Fire & Emergency Services, Police and medical services from safe location by calling 101, 100 and 108 respectively.
- (vii) Listen to PA (Public Addressal) System of the plant/ factory, local radio/ TV channels for advice from district administration/fire/health/police and other concerned authorities
- (viii) Provide correct and accurate information to government official.
- (ix) Inform others on occurrence of event at public gathering places (like school, shopping centre, theatre etc.).
- (x) Don't pay attention to the rumours and don't spread rumours.

27.6 General Precautions during Normal Time

- (i) Do not smoke, lit fire or spark in the identified hazardous area
- (ii) Sensitize the community living near the industrial units and they should be more vigilant about the nature of industrial units and associated risks.
- (iii) Keep the contact numbers of nearest hazardous industry, fire station, police station, control room, health services and district control room, for emergency use.
- (iv) Avoid housing near the industries producing or processing the hazardous chemicals, if possible.
- (v) Participate in all the capacity building programmes organized by the government/ voluntary organizations / industrial units.
- (vi) Take part in preparing disaster management plan for the community and identify safe shelter along with safe and easy access routes.
- (vii) Prepare a family disaster management plan and explain it to all the family members.
- (viii) Make the family/ neighbours aware of the basic characteristics of various poisonous/ hazardous chemicals and the first aid required to treat them.
- (ix) Adequate number of personal protective equipments needs to be made available, to deal with emergency situation.
- (x) Prepare an emergency kit of items and essentials in the house, including medicines, documents and valuables.

NW Railway is having contact with all Oil Companies and all other agencies at deferent locations. In case of any leakage or other problem on line, companies are requested, who in turn immediately attend these faults. Due to this no untoward incidence take place. Staffs of ARTs of Divisions have been trained from Nagpur and Delhi fire training school to meet any disaster caused by carrying of these hazardous materials local authorities

HAZARDOUS GAS EMERGENCIES (Including Guidelines of NDMA)

National Disaster Management Authority (NDMA) has issued guidelines on the management of chemical disasters. These guidelines are directed more towards their prevention and mitigation of their effects, if these happen than on rescue and relief operations afterwards.

Indian Railways have also been transporting chemicals and hazardous materials e.g. petroleum products (petrol, Naphtha, HSD, etc.), Caustic Soda, alcohol, compressed gases (LPG gas) chemical manures, acids, matches, etc. These goods are carried either in the SLRs or in the parcel vans or in the goods wagons. Quantum and type of transportation of such hazardous material varies from railway to railway.

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

- i. Explosives
- ii. Gases - compressed, liquefied or dissolved under pressure
- iii. Petroleum and other inflammable liquids
- iv. Inflammable solids
- v. Oxidizing substance
- vi. Poisonous (toxic substances)
- vii. Radio-active substances
- viii. Acids and other corrosives

Chapter I to VIII respectively deal with the above classes of dangerous goods which include General Rules governing acceptance, handling, carriage, storage, delivery and the list of commodities included in that class. Carriage of goods of a hazardous nature other than those specified in these chapters shall not be accepted for transport by rail unless specially authorized by the railway administration as provided under these Rules.

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

Liquid Petroleum Gas: Important properties of LPG from point of view of safe handling and tackling emergencies are as under:

LPG is a mixture of mainly propane (25% to 45%) and butane (75% to 55%) and some quantity of propylene and butylenes.

As liquid, LPG is lighter than water (density 0.52 to 0.57 gm/cc at 15°C). As gas, LPG is 1.4 to 2.1 times heavier than air. When liquid LPG converts to gas in case of leakage to atmosphere, it expands heavily (230 to 270 times). During leakage in still air, LPG tends to settle at floor level.

Volumetric expansion of LPG with temperature is 10 times than that of water and 100 times than that of steel. Adequate vapour space should be left in LPG pressure vessel and it should never be overloaded. Leakages will increase with rise in temperature.

LPG is highly inflammable. It becomes explosive when mixed with air more than 2% by volume.

LPG catches fire instantly on coming in contact with a source of ignition such as flame, spark, lighted match stick, cigarette, beedi etc. without source of ignition, LPG will not catch fire till 410°C.

In case of continuous LPG leak, a source of ignition even far away can ignite the escaping vapours. The fire may also travel back to the source of leak, engulfing the leaky wagon. Normally LPG is stored in refrigerated state (boiling point -15°C to 0°C).

When pressure is released and liquid LPG changes to vapour, heat required for vaporization is picked up from surroundings. The liquid product while evaporation can become cold enough to cause frost burns on bare flesh. Protective gloves should be worn when there is possibility of skin contact with liquid LPG. During evaporation from leak source, water vapour also condenses from the air forming a visible cloud.

LPG is not poisonous. It does not contain toxic gases like carbon-monoxide. However when a person comes in contact with large amount of LPG in a closed space, difficulty in breathing can occur due to lack of oxygen. Liquid LPG handled without protective clothing can cause cold burns.

Warning symptoms when breathed in sufficient quantities – stomach upset and headache. To facilitate detection of LPG leakage, it is mixed with ethyl mercaptan to impart a foul odour resembling that of rotten eggs.

Note: A wagon which has held LPG earlier and is “empty” is potentially dangerous. In this state, in case of a leaking or open valve, air can diffuse inside and mix with residual LPG at atmospheric pressure to form an explosive mixture. Valves and bleeder caps of “Empty” wagons should always be kept closed.

Leakages in LPG Wagons:

Leakage occurs from barrels of tank wagons due to –
Damaged barrel.

Defective dome fittings – improperly tightened or become loose during run.

Defective valve seals, gaskets and corrosion from seating area.

b. Precautions:

Nearest Railway Authority, Oil Company and fire brigade to be informed. Directions should be obtained from Divisional C&W Controller.

When leakage is detected, all lights and fires in vicinity should be extinguished / removed. Incandescent electric lights can be used. As LPG vapour mixed with air remains suspended at a lower level, this area must be kept free from sources of ignition.

Locomotives should be kept away from site.

Personnel should keep to the windward side of the leakage.

Spectators should be kept away and instructed not to smoke.

Earth should be spread over the surface on which LPG has leaked.

In case inspection of dome fittings is required to be done, the wagon has to be moved to a non-wired line. Alternately, power block with protective earthing on both sides has to be taken to inspect the dome fittings.

In case of leakage from dome fittings, a **trained fitter equipped with proper tools** should first identify the location of leakage using soap water, and then attend as under-
Leakage around Valve securing bolts – tighten the bolts using non-sparking tools. Excessive force not to be used. If leakage persists, it indicates defective seal.

Leakage from Education Valve – Tighten the valve from wheel without using excessive force. If leakage does not stop, it indicates defective valve seal.

Leakage from Safety Valve – It may be due to valve performing its function of relieving extra pressure or due to defect. Pouring of cold water over outer surface of barrel can help to reduce leakage.

Leakage from Thermometer Well – It is very dangerous situation as thermometer well is practically the part of barrel. Tighten top nut to stop the flow of liquid. Do not overtighten as removal of nut. It will worsen the situation.

Physical damage to barrel – immediately isolate the tank and notify all concerned.

Leak wagon should be removed to an open area if so advised by control.

Arrange for sufficient quantity of water and activate the existing fire-fighting system to handle any emergency.

DO'S:

Ensure quick and accurate information is given to Divisional Control.

Arrange for local resources.

Ensure no ignition sources near leaky wagon. Affix labels of “Dangerous” and “Not to be loose shunted” on both sides of the wagon and attach a red flag.

Check for sparking due to loose brake shoes or hot axles.

Leakage can be checked by smell, hissing sound or ice-formation on dome.

In case of leakages from valves, check that they are closed.

In case of heavy leakage, isolate the wagon on the advice of control. Keep the wagon cool by spraying water.

Guard wagon should always be available during shunting.

DON'TS:

- Do not smoke.
- Do not keep fuel oil, lubricant oil and debris accumulated in engine rooms.
- Do not carry lighted cigarettes, kerosene signal lamps near the vicinity of leaky wagon.
- Don't use steel hammers or other such tools for checking / tapping. Only rubber / Teflon or brass / beryllium-copper non-sparking tools are permitted for handling LPG wagons.
- No loose / fly shunting is to be carried out.

e. Other Suggestions:

Extent of leak can be detected by soap-water.

If leaky valves are found hard to operate, excessive force should never be used.

No hammering is permitted on tank barrel.

Headers of education valves should always be blanked by pluggers.

In case of heavy leakage and vapour cloud formation, OHE traction and Diesel locomotives in yard can be shut Dn.

Tackling LPG wagon derailments / accidents:

Combustible Gas Detector should be used to measure the extent of leakage and decide appropriate restoration measures.

No smoking / gas cutting, lighting of stoves is to be permitted in the affected area.

Nearest fire Brigade and Oil Company team to be called to site.

For re-railing operations, Diesel crane needs to be fitted with spark arrester.

Only water is permitted for LPG wagon fire control. In case of fire, all attempts should be made to keep the upper portion of the barrel cool by spraying water; else the barrel can explode due to heat and cause heavy loss of property and life.

AMMONIA

Important properties of Ammonia from point of view of safe handling and tackling emergencies are as under:

Ammonia is a poisonous gas with characteristic pungent odour. The gas causes irritation of eyes, respiratory tract above 140 ppm. Ammonia gas is poisonous in concentrations above 5000 ppm.

Explosive Limit (Flammable limit) – 15% to 28%

It is extremely soluble in water and organic solvents. In case of leakage, a water curtain dissolves the leaking gas. The eyes and skin of affected personnel should be washed with sufficient quantity of water.

Dry ammonia is not corrosive to most material – however with the addition of moisture it is corrosive to metals such as copper, zinc and their alloys and galvanized surfaces.

It has a boiling point of –33.3°C and specific gravity of 0.77.

Precautions to be observed for leaky Ammonia tank wagons:

Nearest Railway Authority, Fertilizer Company and fire brigade to be informed.

Directions should be obtained from Divisional C&W Controller.

The pungent odour of ammonia gives warning of its presence well before dangerous concentrations are achieved.

In case of leakage, personnel should keep to windward side of leak. Breathing apparatus and goggles to protect the eyes from irritation are required in cases of heavy leakage. Leaky wagon should be immediately isolated to an open area.

In case inspection of dome fittings is required to be done, the wagon has to be moved to a non-wired line. Alternately, power block with protective earthing on both sides has to be taken to inspect the dome fittings.

In case of leakage from dome fittings, a **trained fitter equipped with proper tools** should first identify the location of leakage, and then attend as under-

Leakage around Valve securing bolts – tighten the bolts until leakage stops. Excessive force not to be used. If leakage persists, it indicates defective seal.

Leakage from Education Valve – Tighten the valve handle from hand without using excessive force. If leakage does not stop, it indicates defective valve seal.

Leakage from Safety Valve – It may be due to valve performing its function of relieving extra pressure or due to defect.

Leakage from Thermometer Well – It is very dangerous situation as thermometer well is practically the part of barrel. Tighten top nut to stop the flow of liquid. Do not over tighten as removal of nut will worsen the situation.

Physical damage to barrel – immediately isolate the tank and notify all concerned.

A leaky wagon which has been emptied should be properly stenciled and returned for repairs to the owning fertilizer company. Such a wagon can be put back in service after repairs only after being given a hydraulic test.

DO'S:

Ensure quick and accurate information to Divisional Control.

Subsequently arrange for local resources.

The affected area should be cordoned and personnel should stay in the upwind direction as far as possible.

Attempts to be made to locate and plug the source of leakage.

Spray sufficient quantity of water to dissolve the ammonia. Fire brigade at site can spray water around the leak source to form a water curtain.

First aid- Eyes and skin should be washed with sufficient quantity of water to dissolve the ammonia. For unconscious victims, artificial respiration may be done.

Breathing Apparatus / canister respirator with ammonia filter and protective goggles are to be used by personnel approaching leaky wagons. In case of emergency, wagon can also be approached applying a wet handkerchief over the face to dissolve the ammonia vapours.

Tank should be shifted to an isolated place if so advised by the control.

DON'TS:

Source of ignition should not be allowed near the leaky wagons.

Direct contact with ammonia is to be avoided as it causes caustic burns.

Ammonia should not be inhaled directly – a moist cloth should always be used for protection.

Oil or ointment should not be used on affected part of body.

No attempt should be made for carrying out welding repairs on leaky wagon.

Important Tools to handle LPG / Ammonia gas emergencies:

- Spark proof tool set (rubber / teflon / brass / beryllium-copper tools) consisting of set of spanners, chisel, ball pane hammer, blanking flanges, education valve pluggers and adopters, Teflon tape and M-seal epoxy adhesive.
- Protective hand gloves, helmet.
- Explosive meter.
- Intrinsically safe torches.
- Breathing aids – A canister respirator with LPG/Ammonia and dust filters can be used in open spaces with up to moderate gas leakage. For heavier gas concentrations, breathing apparatus with oxygen cylinder is required.
- Clear protective goggles.
- Plenty of water, buckets and water-spraying arrangement.

CLASS-II (GASES, COMPRESSED, LIQUEFIED 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:

1. Dissolved gases:

Acetylene (compressed into porous substances)

2. Compressed Gases:

Compressed Air	Argon	Coal gas	Oxygen	Sulphur Hexafluoride
Methane	Neon	Nitrogen	Hydrogen	

3. Liquefied Gases

Ammonia (Anhydrous)*		Carbon dioxide (Carbonic Acid gas)	
Ethyl chloride	Freon, Arcton or Genetron	Hydro-cyanic Acid	Methyl Bromide
Chlorine	Liquefied petroleum gas (Commercial butane or propane)		
Nitrous oxide	Medical mixtures (Oxygen & CO ₂ , Oxygen & Helium mixture) Methyl Chlorine (Chloromethane)		
Liquid air	Liquid oxygen	Liquid nitrogen	Liquid Helium
Sulphur dioxide toxic (sulphurous acid gas)			Cyclopropane gas

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.

1.1 Packing

Before the above commodities are transported by rail, it must be packed as per rules 207.1 & 207.2 of Red 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.

1.2 Marking & labelling of cylinders or containers

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

1.3 Storage

(Refer Rule No.211 of Red 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 inflammable 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.

1.4 Modes of Transportation

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

1.5. Storage & Carriage

Storage and 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.

1.6 Additional Rules

Exceptional or additional rules regarding packing marking and labeling, carriage by goods/mixed/parcel train and stowage and carriage rules have been specified in Tables II, Chapter II of Red Tariff No.20. Characteristic property of gas and pictorial level indicating main characteristics of the gas is also indicated in column 2 & column 3 of table II.

2.0 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'.

Class A: Petroleum and other inflammable liquids, the vapour of which having flash point below 23°C.

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

Class C: Petroleum and other inflammable liquids, the vapour of which having flash point at 65°C and above.

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.

2.1 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 vehicles used for transportation of petroleum must be marked on each side and rear thereof in letters at least 7 cm high on a background of sharply contrasting colour the word “INFLAMMABLE” and the common name of the liquid being transported e.g.

“MOTOR SPIRIT”, “KEROSENE” etc. For method of packing, marking and labeling of petroleum and other inflammable liquids, Rules 308, 309 and 310 of Red Tariff No.20 may be referred.

2.2 Storage

Time of Loading & Unloading: All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset. Provided that consignments to be sent in brake vans of passenger, mixed or parcel trains and by transship or road van trains may be handled at any hour, after due precautions have been taken to prevent accidents. Loading and unloading of petroleum products shall be allowed at any hours if, adequate electrical lighting and fire fighting facilities as determined by Chief Controller of Explosives, have been made available at the place of loading and unloading.

Prohibition of smoking, fires, etc.: Petroleum and other inflammable liquids must not be stored or handled near explosives and other dangerous goods. Smoking, taking fire or naked light matches or other articles of inflammable nature is strictly prohibited near petroleum and other inflammable liquids. All due precautions should be taken at all times to prevent any escape of petroleum and other inflammable liquids. Rules 312 and 313 of Red Tariff No.20 may be referred for detail.

2.3 Transportation

Subject to the provisions of Rules (i) and (ii):

(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.

Rule (i): Petroleum and other inflammable liquids, class ‘A’ may be transported in wagons by a mixed or parcels on any line or section on which goods trains are not running provided that immediately on entering any section on which goods trains are running, the wagons containing petroleum and other inflammable liquids class ‘A’ shall be detached from the mixed or parcel train.

Rule (ii): **Carriage in brake van of passenger, mixed or parcel trains** – Except as otherwise provided in column 5 of table III of Red Tariff No.20, petroleum and other inflammable liquids shall not be carried in brake van of passenger, mixed or parcel train. Whenever these commodities are permitted to be carried in the brake van, the following points must be ensured.

The total quantity in the brake van of any one train at any one time shall not exceed 50 litres.

Petroleum and other inflammable liquids shall not be carried in the same carriage with any matches or fuses or appliances producing ignition, or any explosives or other dangerous goods.

Packages containing petroleum and other inflammable liquids shall be carried only in the rear brake van which shall be well ventilated.

Packages containing petroleum and other inflammable liquids shall be placed as far as possible from other packages in the brake van and from the tail light of the train.

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.

Precautions to be observed while loading and unloading tank wagons:

- i. Tank wagons used for the conveyance of petroleum and other inflammable liquids shall be in good condition and free from leakage.
- (ii) In filling tank wagons, an air space of more than 5% of the capacity of the tank wagon shall be left, provided that, the prescribed air space may be reduced to (a) 2.5 percent in the case of some important items like-High speed diesel oil, Furnace oil, Kerosene oil, Turbine fuel like Aviation spirit, b. 4 percent in the case of some important items
- iii. All inlets and outlets shall be securely closed.
- (iv) Petroleum and other inflammable liquids, class 'A' shall not be filled in or discharged from tank wagons:
 - a. At any place where tank wagon is exposed to sparks
 - b. Within a distance of 30 m from any fire, furnace or artificial light capable of igniting inflammable vapour. Distance may be reduced to 9 m when the liquid is filled or discharged under seal and closed vapour return pipe lines are provided.

Empty Tank Wagons: All empty tank wagons which have contained petroleum and other inflammable liquids shall, except when they are opened for the purpose of cleaning them and rendering them free from vapour, be kept securely closed unless they have already been thoroughly cleaned and rendered free from vapour.

2.4 Stowing in wagons, labeling, sealing and locking

Guidelines regarding stowing, labeling, sealing and locking of wagons have been discussed in Rules 322 and 323 of Red Tariff No.20. A 'Dangerous' label as shown in Rule No.323 of Red Tariff No.20 must be affixed to both sides of every wagon in which petroleum and other inflammable liquids are stored for despatch or delivery or while in transit.

The rules for shunting, marshalling and delivery of consignments have been discussed in Chapter of Red Tariff No.20.

2.5 Additional Rules

Any additional or exceptional rules applicable for any specific item regarding packing, marking and labeling carriage by goods train, carriage in brake van of passenger, mixed or parcel train and stowage and carriage rules have been discussed in detail in table III, Chapter III of Red Tariff No.20.

3.0 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. Only these acids and other corrosives shall be accepted for conveyance by rail. Regarding general restrictions on conveyance of acids and other corrosives by rail and notice of despatch to be given by sender, rules 802, 803, 804, 805 & 806 of Red Tariff No.20 may be referred.

3.1 Packing, Marking and Labelling

Although acids and other corrosives is to be packed by consignor but more precautions need to be taken by concerned 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.

The outermost package containing acids and other corrosives must be marked with the word "Corrosive" and name of the acid or corrosive. Labeling of package must be done as per rule 808, 809 & 810 of Red Tariff No.20.

3.2 Handling and Storage

A. Time of Loading and Unloading

All the operations of loading, unloading and handling of acids and other corrosives shall be conducted between sunrise & sunset. Consignments sent in sectional vans may be handled at any hour by taking all due precautions to prevent accidents, including provision of adequate lighting.

B. Handling of Packages

- Packages containing acids and other corrosives not to be thrown dropped down or dragged along the ground of floor and care should be taken to avoid striking them against any hard object.
- When loading and unloading heavy drums or casks cushions of a suitable type, thick coir matting, felt, bags filled with saw dust or similar protection should be used to avoid damage to the drums or casks and to prevent leakage.
- Whenever practicable, packages containing acids and other corrosives shall be carried or conveyed on trolley or hand barrows.
- Acids and other corrosives not to be stored or handled with or near explosives or other dangerous goods or articles of inflammable nature.
- Acids and other corrosives not to be stored or handled with or near foodstuffs or foodstuffs empties.
- The floor of any place or wagon on which acids and other corrosives have been stored or the wagon or trolley or hand barrow in which they have been carried shall swept and thoroughly cleaned after removal of the goods there from.

3.3 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 wagons and tank wagons. End opening carriages or wagons shall not be used.

Conveyance in tank wagons

Tank wagons used for the conveyance of acids and other corrosives shall be of a design approved by the Chief Controller of explosives.

Precautions to be taken while loading tank wagons

Tank wagons used for the conveyance of acids and other corrosives shall be in good condition and free from leakage.

In filling tank wagons, an air space of not less than 5% of the capacity of the tank shall be left. All inlets and outlets shall be securely closed subject to provision of vents where required.

3.4 Stowing in wagons

Packages containing acids and other corrosives should be compactly loaded so that they do not shift during transit.

Different kinds of acids and other corrosives when loaded together in the same wagon shall be kept as far apart from another as may be practicable.

Drums containing acids and other corrosives shall as far as possible be loaded on end.

Bottles, jars and carboys should not be loaded on top of other goods and the other goods should not be loaded on the top of bottles, jars and carboys.

3.5 Labelling, Sealing and locking of wagons

A “dangerous” label as shown in rule 824 of Red Tariff No.20 shall be affixed on both side of every wagon in which acids and other corrosives are stored for despatch or delivery or while in transit.

3.6 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:-

The speed of all movements does not exceed 8 kmph.

No rough hump, fly or loose shunting takes place.

4.0 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.

5.0 Rescue, Relief and Restoration Operations

Railway’s expertise in dealing with the mis-happening 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 in coordination with those agencies and organizations on their system that have expertise in dealing with the hazardous material being handled and transported on the respective zonal railways. Contact details e.g. name, designation, telephone Nos., mobile Nos. etc. of such agencies should be available in the divisional and zonal railway Disaster Management Plan so that these agencies can be called for without any delay during any untoward incident. However, not to mention the 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.

STORAGE AND HANDLING OF HAZARDOUS CHEMICALS

Railways as such is not using any type of explosives. However, there are commodities like high speed diesel, lubricating oils, acids which are generally used during day to day operations by large number of staff working in field units. Adequate fire protection systems for all such commodities where ever stored has been put in a place to deal with any un called situation or breaking of fire. However, in case, some of the material of explosive category is introduced for use at some point of time , needs to be dealt by adopting adequatesafe procedure.

POLICY/PROCEDURE

1. Intent

The purpose of the procedure is to protect persons and property against misuse and unsafe or insecure storage of explosive materials. No employee will work with explosives until trained on the hazardous and handling of explosive materials.

2. Responsibilities

The custodian department will be charged with the task of ensuring that all employees using explosives receive training on the hazards and dangers associated with them. This will be accomplished by reviewing the documentation of the training the employee has received.

3. Training

All employees required to work with explosive materials will receive training through any agency or approved training facility that trains on explosives before they are allowed to handle or store explosive materials.

4. Storage

Storage must be in accordance with statutory requirement issued from time to time by the central and state government bodies and also necessary fire fighting system needs to be put in place.

System may also be put in place whenever possible so as to have timely alarm in case something is going to happen. Necessary drills must be conducted at regular intervals to ensure that adequate awareness and knowhow exists to deal such cases.

5. Records and Reports

Records shall be kept in permanent form (record book, invoices, etc.) according to the daily summary of storage transactions provisions made as per statutory bodies are to be maintained at each store for each facility. These records may be kept at one central location if separate records of daily transactions are kept for each storage. No later than the close of the next business day, the total quantity received in and removed from each storage will be recorded. Any discrepancy that may indicate theft or loss of explosive materials is to be reported within 24 hours to authorities as prescribed. A complain form must be filed with the authorities as prescribed and must also be reported to local authorities.

6. Transportation

The transportation of large amounts of such material should be managed in a way that the delivery of explosives shall be coordinated so that the explosives are delivered at the location of storage.

Management of Nuclear and Radiological Emergency (DISASTER)

28.1 Vulnerability of Nuclear Facilities:

Identification of a Rail network close to a nuclear facility needs to be done by the Zonal Railways.

- (i) As regards the vulnerability of various nuclear fuel cycle facilities to terrorist attacks, these facilities have elaborate physical protection arrangements in place to ensure their security.
- (ii) The structural design of these facilities ensures that even in the event of a physical attack, the structural barriers prevent the release of any radioactivity outside the plant area itself and hence the public are not likely to be exposed to radiation.
- (iii) While their radioactive strength is in itself a deterrent to pilferage, the radioactive sources can still be stolen and used in a Radiological Dispersal Device or Improvised Nuclear Device.
- (iv) Essentially, a Radiological Dispersal Device is a conventional explosive device in which the radioactive material has been so added that, on its being exploded, there would be dispersal of radioactivity in the environment.
- (v) A Radiological Dispersal Device is not a Weapon of Mass Destruction.
- (vi) Normally, the use of a Radiological Dispersal Device by itself would not result in fatalities due to radiation. The fatalities, if any, would primarily be due to the explosion.
- (vii) However, it may contaminate a reasonably large area, besides its main potential of causing panic and disruption.
- (viii) Accidents during the transportation of radioactive materials are of low probability due to the special design features of the containers in which they are transported and special safety and security measures (to take care of all possible threats/eventualities, including the threat from misguided elements) which are laid down to be followed during actual transportation.
- (ix) A network of 18 Emergency Response Centres has presently been established by the Bhabha Atomic Research Centre to cope with radiological emergencies in the public domain, like transport accidents, handling of orphan sources, explosion of Radiological Dispersal Devices etc.

The task of these Emergency Response Centres is to monitor and detect radiation sources, train the stakeholders, maintain adequate inventory of monitoring instruments and protective gear, and provide technical advice to first responders and local authorities.

28.2 Action taken in Case of-

28.2.1 Person receiving call regarding bomb threat should:

- (i) Attempt to gain as much information as possible from the caller like type of device, time set, location, reason/purpose of the act, dialect mannerism and identity of the caller.
- (ii) Inform and alert the disaster management team (Bomb detection squad).
- (iii) Alert police, fire brigade and explosive department.
- (iv) Pass on the information to all departments concerned.
- (v) Take initiative for evacuation of all persons from premises.
- (vi) Person noticing a bomb like object, should bring it to the notice of the nearest available officer.
- (vii) Inform GRP, RPF, and Bomb detection squad.
- (viii) Ensure all persons are away from the spot and avoid unnecessary crowding near the area.
- (ix) Inform control to take further steps for regulating train services.

- (x) Wait for clearance from the Police department to restore normal working.
- (xi) Utilize “Caller ID” facility if provided to trace the caller.

28.2.2 Nuclear Disaster (Radiation Emergency):

(i) Personal injury involving radioactive material contamination:

- (a) Render first aid immediately for serious injuries by trained.
- (b) Call bomb squad, fire station.
- (c) A possible without causing harm to the victim, monitor the injured, remove contaminated clothing and gross personal contamination.

(ii) Radioactive contamination of personnel:

- (a) Remove and bag all contaminated clothing.
- (b) Call fire station, bomb squad, and police.
- (c) Skin contamination should be cleaned using mild soap and tepid water. Use portable survey meter to monitor for remaining contamination. If not free of contamination, re-wash and re-survey.

28.2.3 What to do upon receipt of suspicious letter/ package:

- (i) Handle with care.
- (ii) Don't shake or bump
- (iii) Isolate and look for indicators.
- (iv) Don't open, smell or taste.
- (v) Treat it as suspect.
- (vi) Call Police/Fire service/Bomb squad.

28.2.4 If parcel is Open and / or Threat is identified:

- (a) For a bomb.
 - (i) Evacuate immediately.
 - (ii) Call police/fire service/Bomb squad.
- (b) For Radiological:
 - (i) Limit exposure – don't handle.
 - (ii) Evacuate area.
 - (iii) Shield yourself from the object.
 - (iv) Call police/ fire service/bomb squad.

28.2.5 Suspicious substance in Railway Premises:

- (i) Clear and isolate the contaminated area. Do not touch or disturb anything.
- (ii) Call police/ fire service/ bomb squad.
- (iii) Wash your hands with soap and water:
- (iv) Identify individuals who may have been exposed to the material
- (v) Do not leave premises until disposed by authorities.

28.2.6 Acts of terrorism and Sabotage

- (i) Tampering of Railway fittings causing accidents & placing of foreign particles on track to cause disruption to traffic.
- (ii) A staunch vigil should be kept by introduction of special patrolling over the area as and when warranted.
- (iii) Some persons to be trained specially and to be drafted for duty over the area if required.

28.3 Dos and Don'ts in manmade Disaster

28.3.1 Chemical Disaster Do's & Don'ts

Precautions to be taken during and after the Chemical (Industrial) Accidents

- (i) Do not panic, evacuate calmly and quickly perpendicular to wind direction through the designated escape route
- (ii) Keep a wet handkerchief or piece of cloth/ sari on face during evacuation
- (iii) Keep the sick, elderly, weak, handicapped and other people who are unable to evacuate inside house and close all the doors and windows tightly.
- (iv) Do not consume the uncovered food/ water etc open to the air, drink only from bottle
- (v) Change into fresh clothing after reaching safe place/ shelter, and wash hands properly
- (vi) Inform Fire & Emergency Services, Police and medical services from safe location by calling 101, 100 and 108 respectively.
- (vii) Listen to PA (Public Address) System of the plant/ factory, local radio/ TV channels for advice from district administration/fire/health/police and other concerned authorities
- (viii) Provide correct and accurate information to government official.
- (ix) Inform others on occurrence of event at public gathering places (like school, shopping centre, theatre etc.).
- (x) Don't pay attention to the rumours and don't spread rumours.

General Precautions during Normal Time

- (i) Do not smoke, lit fire or spark in the identified hazardous area
- (ii) Sensitize the community living near the industrial units and they should be more vigilant about the nature of industrial units and associated risks.
- (iii) Keep the contact numbers of nearest hazardous industry, fire station, police station, control room, health services and district control room, for emergency use.
- (iv) Avoid housing near the industries producing or processing the hazardous chemicals, if possible.
- (v) Participate in all the capacity building programmes organized by the government/ voluntary organizations / industrial units.
- (vi) Take part in preparing disaster management plan for the community and identify safe shelter along with safe and easy access routes.
- (vii) Prepare a family disaster management plan and explain it to all the family members.
- (viii) Make the family/ neighbours aware of the basic characteristics of various poisonous/ hazardous chemicals and the first aid required to treat them.
- (ix) Adequate number of personal protective equipments needs to be made available, to deal with emergency situation.
- (x) Prepare an emergency kit of items and essentials in the house, including medicines, documents and valuables.

28.3.2 Nuclear disaster-Do's & Don'ts

DO's

- (i) Go indoors. Stay inside.
- (ii) Switch on the radio/television and look out for public announcements from your local authority.
- (iii) Close doors/windows.
- (iv) Cover all food, water and consume only such covered items.

- (v) If in the open, cover your face and body with a wet handkerchief, towel, dhoti or sari. Return home, change/remove clothes. Have a complete wash and use fresh clothing.
- (vi) Extend full cooperation to local authorities and obey their instructions completely -- be it for taking medication, evacuation, etc.
- (vii) You must be aware of nuclear radiation hazard. Discuss on Nuclear radiation safety among children and family members, to reduce their fear of radiation.

Dont's

- (i) Do not panic.
- (ii) Do not believe in rumours passed on by word of mouth from one person to another.
- (iii) Do not stay outside/or go outside.
- (iv) As far as possible, AVOID water from open wells/ponds; exposed crops and vegetables; food, water or milk from outside.
- (v) Do not disobey any instruction of the district or civil defence authorities who would be doing their best to ensure the safety of you, your family and your property.

Management of Pandemic

In view of the recent pandemic spread out over the entire world, there is a need to make the people aware belonging to every sphere of the life about the responsibilities of a common man or a person working in capacity for providing the services to the society.

Brief knowledge: A brief knowledge about the pandemic, mode of spread, how to prevent, DOs & DON'Ts must be acquired and be suitably displayed or communicated in the best & fastest way and using social media and electronic communication. So that the people may be made aware for minimizing the risk of infecting other people.

Role of Government: Instructions issued by the Govt. must be followed by all concerned as a social responsibility. The Govt bodies concerned with the same must channelize the various platforms to ensure the effective implementation of the advisories as issued by all concerned.

Role of state Government: State Govt. should also ensure the implementation of advisories issued by the central authorities on the respective state looking to the local conditions and intensity of the pandemic to ensure that unnecessary panic is also not created and at the same time the things should not be taken very casually and the basic purpose of checking the pandemic is defeated.

Role of Govt. Department (MoHFW): Role of ministry of health and family welfare is very vital in deciding and issuing advisories, as guide lines for all concerned to be followed to prevent the spread of the pandemic.

Role of Railways: Railways being the major transporter of public and goods has great responsibilities-

- The advisories issued by the MoHFW must be interpreted well so as to comply with and manage the day to day operations accordingly.
- The requisites, if any, need to be identified and action needs to be taken for the fastest compliance.
- The services should be restored in a such a friendly and guarded manner so that the advisories are complied and the traffic to the extent possible is also restored.
- Signage, if any, for the purpose of awareness must be identified and put in a place for the safety of all concerned.

CHAPTER 30

Manmade Disaster- FIRE

30.1 Fire on a running train is more catastrophic than on a stationary one, since fanning by winds helps spread the fire to other coaches, moreover, passengers sometimes jump out of a running train on fire resulting in increased casualties.

In case of a fire in running train, every railway staff available on the train or at the site shall be immediately try and stop the train and plunge into action to save lives and property.

30.2. MAIN CAUSES OF FIRE IN TRAINS

- (i) Carrying Stoves, Sigris, Gas Cylinders, Kerosene Oil, Petrol etc. in passenger Compartments;
- (ii) Lighting fire/using fire near paper, wood, petrol or other inflammable articles.
- (iii) Lighted match sticks, cigarette ends carelessly thrown;
- (iv) Electrical short Circuiting;
- (v) Using naked light during shunting of inflammable loads, sealing of inflammable wagons;
- (vi) Use of naked fire of smoking near wagons containing LPG; other inflammable liquids and explosive goods.
- (vii) All railway staff and passenger should take all possible precautions to avoid any of the above mistakes.

30.3. FIRE PREVENTIONS.

- (i) Required numbers of Fire Extinguishers must be provided in Brake Vans, RMS Vans, Dining cars, AC coaches, Inspection Carriages, Stations and other nominated places.
- (ii) Proper marshalling order of the wagon containing explosives, inflammable and dangerous goods should be strictly followed.
- (iii) Proper care & precautions should be taken while handling these items, such as diving loading, unloading & storing.
- (iv) Proper training on “fire fighting” shall be imparted to all front line staff.

The following things to be avoided.

- (i) Smoking or lighting a flame where it is prohibited.
- (ii) Throwing of oil soaked jute/ cloth carelessly;
- (iii) Throwing of burning match –stick, bidi/cigarettes carelessly;
- (iv) Over loading of a van so as to interfere with electrical connections.
- (v) Allowing running of hot axle wagon;
- (vi) Keeping explosive materials along with combustible materials;
- (vii) Carrying of Gas Stoves, Kerosene Oil, Gas Cylinders, and Kerosene Jars, petrol or other inflammable articles in passenger carrying trains.

30.4. Fire alarm A proper fire alarm is the quickest means to warn staff about the outbreak of fire. As soon as a fire is noticed any of the following fire alarm as provided shall be used immediately:-

- (i) Electric Siren: Should be sounded continuously for 5 minutes.
- (ii) Shed Hooter: Should be sounded continuously for 5 minutes.
- (iii) Hand Bell: Should be sounded continuously for 5 minutes.
- (v) Engine Whistle: Should be sounded continuously for 5 minutes.
- (vi) Electric Fire Bell: Button should be pressed to ‘on’ to ring the fire alarm bell continuously for 3 minutes.

30.5. ACTION TO BE TAKEN DURING FIRE ACCIDENTS-

(i) In case of fire in a passenger train, on run.

- (a) The train shall be stopped, immediately.
- (b) Efforts shall be made to save the lives and RMS first.
- (c) Information should be given to the nearest SM/control quickly.
- (d) The burning vehicle shall be isolated, a distance of not less than 45 meters being left between it and the other vehicles 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.
- (h) If the fire is suspected to be due to electrical short circuit, the electric couplers at the both end shall be disconnected & fuse from the battery from boxes shall be removed.
- (i) 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 burning vehicle has been detached.
- (j) All available help should be mobilized to extinguish the fire.

(ii) In the event of fire on an electric engine/ EMU.

- (a) The Loco Pilot shall immediately switch off the circuit breaker and lower the pantograph; bringing the train to a stop.
- (b) After disconnecting the electric supply to the affected circuits, the Loco Pilot shall take necessary action to put out the fire, by using all available means including fire extinguisher.
- (c) If the fire cannot be extinguished by the above means the Loco Pilot shall advise the Traction Power controller through the emergency telephone to make the affected section of the over- head equipment dead.
- (d) The Guard and any other staff available shall render all possible assistance to the Loco Pilot in extinguisher out the fire.
- (e) Fire extinguishers shall be provided on each electric engine / train and the Loco Pilot shall made himself familiar the location and use of these extinguishers.
- (f) Ordinary Fire extinguishers or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment. If the services of the fire brigade required, the brigade shall not be allowed to commence operations until all electrical equipment in the vicinity of the fire have been made dead.

(iii) In the event of a fire on a DMU stock.

- (a) The motorman shall immediately switch off the circuit breaker and shut down the engine, bringing the train to a stop at once.
- (b) The guard shall give all possible assistance to the motormen in extinguishing the fire.
- (c) The fire extinguishers of approved type shall be provided on each motor coach of DMU then a DMU rake is turned out from the Car Shed, The CWS in charge of the Shed shall inspect the fire extinguishers and ensure that these are in good working condition.

(iv) Fire caused by Petrol or other inflammable liquids, acids or gases:

- a) Segregate the affected wagon, coach or area involved.
- b) On opening a wagon do not enter it immediately. You would thus, avoid fumes, which may be dangerous.
- c) Use foam type fire extinguishers and sand and not water or soda acid type fire extinguishers.

- d) Do not bring naked lights near the site of fire.
- e) Warn the people living in the surrounding areas within one Km. radius.
- f) Stay away from ends of tanks, as tanks normally burst from the ends.
- g) Cool tanks that are exposed to flames with water from the sides only after the fire is put out.
- h) Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
- i) Inform the nearest Fire stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases

(v) General instructions for the treatment of burns and Scalds.

- (a) Avoid handling the affected area more than it is necessary. See that your hand are clean.
- (b) Do not apply lotions of any kind, on the affected area.
- (c) Do not remove burnt to clothing & do not break blisters.
- (d) Cover the area (including burnt clothing) with prepared dry sterile dressing if possible, otherwise clean lint, rashly laundered linen or some similar material may be used.
- (e) Bandage firmly except when blisters are present or suspected, in which case bandage lightly.
- (f) Immobilize the affected area by suitable means.
- (g) Treat for shock.
- (h) In serious case, remove, the patient to hospital as quickly as possible. The injured may probably require an anesthetic, so ordinarily nothing should be given orally. If medical aid is delayed for at least four hours, give drinks of water to which salt has been added in the proportion of half a teaspoon to two tumblers, with the addition of approximately half a teaspoon of bicarbonate of soda (if available).
- (i) In a minor case, give large quantities of warm fluids, preferably weak tea sweet ended with sugar,

(vi) In case of fire due to Explosive. Inflammables/Dangerous Goods:

- (i) Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
- (ii) Following steps may be taken if no undue risk is involved:
 - (a) Move unheated cylinders to a safe place after ensuring closing of valves.
 - (b) Cool the hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.
- (iii) **If cylinder containing inflammable/toxic gas develops leak during transportation-** Remove it to an isolated open place away from any source of ignition and advise the filler or consigner as required.
- (iv) Inform the Chief Controller of Explosives by fax/telephone.
- (v) Inform officer in charge of nearest police station.
- (vi) Inform departmental officer concerned.
- (vii) Pending the visit of the Chief Controller of Explosives/his representative, the wreckage and debris shall be left undisturbed except to save lives.
- (viii) After getting in formation from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.

30.6 Fire fighting:

- (i) Dry chemical powder type fire extinguisher (DCP)
These types are suitable for tackling petroleum, gas, electrical fire and controlling fires of textile fibres, sodium based chemical powder is used on a fire which under go chemical reaction.
- (ii) **How to use:**
 - (a) Carry to the place of fire and keep it up right.
 - (b) Remove the safety clip.
 - (c) Strike the knob located in the cap.
 - (d) Sealing disk of the cartridge gets broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.
 - (e) Direct the stream of the powder at the base of the flame.
 - (f) For effective result stand at about 1.5 to 2.5 m. near the seat of the fire.
Move forward with moving the nozzle rapidly from side to side in sweeping motion.
 - (g) When using on outdoor fires operate from the up wind side for effective spray.
- (iii) **Building Evacuation: When the building fire alarm sounds:**
 - a) Immediately evacuate using building emergency plan procedures.
 - b) Walk to nearest exit/stairwell (Close doors behind you)
 - c) Do not use elevators.
 - d) Proceed to the designated gathering area outside the building.
 - e) Do not re-enter building until cleared by authorized personnel.
 - f) Assist with evacuation of individuals with special needs.

30.7 POINTS TO REMEMBER

- (i) Be speedy but do not get nervous;
- (ii) Locate the fire extinguishing substances viz; water bucket with water/ sand, Fire extinguishers etc;
Raise alarm;
Inform all concerned to assist in extinguishing the fire;
Segregate/ remove all valuable properties;
Keep Fire Extinguisher/ water buckets in readiness and use those as per requirement to extinguish fire;
Arrange to isolate the source of fire if possible.
- (iii) Loco Pilot, Guard passing through or entering a station if notice fire, need not stop out of course Stopping Trains may be controlled at a suitable place so that fire can not harm vehicle/ wagon.
- (iv) If the Loco Pilot and guard of a running train notice fire on another passing train on adjacent line the Loco Pilot shall switch on flasher light, whistle continuously and both shall exhibit red hand signal to attract the attention of the loco Pilot and the guard of the affected train. If they fail to do this, they shall stop the train at the next station and report the matter in writing to the SM.
- (v) When the fire is of serious nature nearby Fire Brigade may be called without delay.
- (vi) The occurrence of a fire shall be informed to the nearest station by most expeditious means and the Station Master on receipt of such information shall take such actions as may be required as per rules.

30.8 Person receiving call regarding bomb threat should

- (i) Attempt to gain as much information as possible from the caller like type of device, time set, location, reason/purpose of the act, dialect mannerism and identity of the caller.
- (ii) Inform and alert the disaster management team (Bomb detection squad).
- (iii) Alert police, fire brigade and explosive department.
- (iv) Pass on the information to all departments concerned.
- (v) Take imitative for evacuation of all persons from premises.
- (vi) Person noticing a bomb like object, should bring it to the notice of the nearest available officer.
- (vii) Inform GRP, RPF, and Bomb detection squad.
- (viii) Ensure all persons are away from the spot and avoid unnecessary crowding near the area.
- (ix) Inform control to take further steps for regulating train services.
- (x) Wait for clearance from the Police department to restore normal working.
- (xi) Utilize “Caller ID” facility if provided to trace the caller.

30.9 What to do upon receipt of suspicious letter/ package:

- (i) Handle with care.
- (ii) Don't shake or bump
- (iii) Isolate and look for indicators.
- (iv) Don't open, smell or taste.
- (v) Treat it as suspect.
- (vi) Call Police/Fire service/Bomb squad.

30.10 If parcel is Open and / or Threat is identified:

- (a) For a bomb.
 - (i) Evacuate immediately.
 - (ii) Call police/fire service/Bomb squad.
- (b) For Radiological:
 - (i) Limit exposure – don't handle.
 - (ii) Evacuate area.
 - (iii) Shield yourself from the object.
 - (iv) Call police/ fire service/bomb squad.

30.11 Suspicious substance in Railway Premises:

- (i) Clear and isolate the contaminated area. Do not touch or disturb anything.
- (ii) Call police/ fire service/ bomb squad.
- (iii) Wash your hands with soap and water:
- (iv) Identify individuals who may have been exposed to the material
- (v) Do not leave premises until disposed by authorities.

Details guidelines on the subject has been issued by CAMTECH/GWL

(No.NWR/HQ/Safety/Accident Prevention/Fire/2020 Dated:25.08.2020)

Sub: - Disaster Management plan – Standard Operation Procedure (SOP) of Fire Accidents.

Ref: - ED/Safety/ Railway Board letter no. 2020/ Safety (DM)/ 6/14 dated 20.07.2020

With an intention of timely response and immediate relief action by all staff on board, NWR has prepared following Standard Operation Procedure to manage the disaster arising out of fire in trains. The basic purpose of this SOP is to synergise the resources available in trains in the form of fire fighting equipment and all type of staff available on board so as to timely control the fire within the minimum possible time to minimise the possibility of loss of life and property.

ROLE OF ON BOARD STAFF IN CASE OF FIRE ON TRAIN

1.1.INTRODUCTION

The fire in trains, in first place, should not break at all as the firefighting equipment like fire extinguishers are available in very limited quantity which can be understood. In case of fire in trains, there is a very little time available to react and take necessary action for the staff available. Many times, the staff available is not even trained to deal such situations or does not know how to utilise the fire extinguishers and even may not know that in case fire breaks, where these fire extinguishers are available and located so that same could be taken and utilised immediately. The immediate use of fire extinguisher is the only best choice and opportunity to suppress the fire which is just initiated. Once this opportunity lost then there are hardly any chances that the fire can be extinguish without the external sources other than what is available in the train.

In most of the cases, relief reaches to burning trains when the carriages are completely burnt and passengers get severe burning injuries. Under such situation, role of on-Board Railway servants becomes vital and they should plunge into action to save the precious lives on priority. In this context, the Railway servants are expected to have a basic knowledge on fire and fire fighting.

There are three main contributing factors for fire to break-

- (1) Substance/material.
- (2) Air/Oxygen.
- (3) Heat.

1.2. Common causes of fire:-

1. Carrying inflammable goods like stove, gas cylinder, kerosene oil, petrol, fireworks etc. in passenger coaches
2. Making/using fire near paper, wood, petrol or such other inflammable articles.
3. Throwing waste material outside the dust bin, near door, non-removal of garbage from Pantry car/coaches.
4. Gas regulator, flame arrester and pressure gauge are in working order.
5. Malpractices like carelessly thrown lighted match sticks, cigarette butts, Bidi butts etc.
6. Leakages/Blasts of pantry gas cylinders.
7. Careless, storage of inflammable materials like newspapers, edible oil etc. in pantry cars.
8. Insertion of cigarette butts, Bidi butts, Gutkha wrapper etc. in fan base, fuse distribution board, roof openings.
9. Sabotage.
10. Mishandling/Careless use of pantry equipment by pantry car staff.
11. Poor maintenance of electrical equipments and short circuits.
12. Loose or temporary connection, hanging wires/exposed joints etc
13. Defects in locomotive causing fire.

1.3. Pre- requisites for Firefighting: -

1. **Positioning of Fire extinguishers:** Fire extinguisher available in the coaches should be properly positioned at pre decided earmarked locations. The locations as, pre decided, should be known to all the staff on board. This will enable the staff not only to find then immediately as per need but also will help to be utilised optimizely. Further the fire extinguisher must be checked and refilled at regular interval as per laid down procedure to avoid awkwardposition when need arises.
2. **Training of staff:** All staff on board deployed by railway private contractor must be adequately trained to utilise the fire extinguishers and to know the other ways to fight such situations.
3. **Carrying of inflammable items during travel:** Carrying inflammable goods like stove, gas cylinder, kerosene oil, petrol, fireworks etc. in passenger coaches must be prohibited under punishable offence. Many fire cases in past have been attributed to this cause.
4. **Poor maintenance of electrical equipment:** All electrical equipment in the coaches must be maintained as per laid down procedure. No Loose or temporary connection, hanging wires/exposed joints etc should be permitted as this may lead to short circuit and initiation of spark resulting into fire.
5. **All pantry car/Power cars equipment be checked periodically:** All pantry car equipment must be periodically checked like leakage test of gas pipe line, no loose connection be permitted, no naked wire be allowed to avoid the cases of fire.
5. **Prohibition of unauthorised hawkers and vendor with sigries:** In many areas unauthorised vendor is going on during the entire year selling seasonal eatables, which is potential hazard for fire safety and adequate measures must be taken to prohibit them strictly.
6. **Provision of adequate fire suppression system in the pantry and generator car:** There is lot of technical upgradation available in market and the same is used in the power cars of trains also. This needs to be encourage and all power/Pantry cars must be provided with latest type of fire suppression system to enhance fire safety.

1.4. Action to be taken when Fire breaks:

1.4.1 FIRE (NWR/G&SR Para no 6.10):-

- (1) A railway servant noticing a fire, likely to result in loss of life or cause damage to property, shall take all possible steps to save life and property, to prevent it from spreading and to extinguish it.
- (2) In case the fire is on or adjacent to any electrical equipment, the railway servant shall, if he is competent in handling electrical equipment and specially trained for the purpose, have the affected part immediately isolated from its source of supply of electrical energy.
- (3) The occurrence of a fire shall, in every case, be reported to the nearest Station Master by the most expeditious means and Station Master shall take such action as may be prescribed by special instructions.

S.R. 6.10(1)(a) In the event of a vehicle on a train being on fire the train shall be stopped and the burning vehicle isolated. A distance of not less than 50 metres will be left between it and other vehicles on train. If not prescribed by fixed signals, the train shall be protected in accordance with G.R. 6.03. Should the fire be discovered when the train is near a water tank or a watering station, the Driver and the Guard shall use their discretion as to proceeding to that place.

(b) In the case of fire occurring in passenger train, safety of passengers is of primary importance. Further, should a postal van be discovered on fire, every effort should be made to save the Mail.

(c) In an electrically fitted carriage should the wood work catch fire due to a short-circuit, the electric couplers at both ends of the vehicles must be disconnected. If equipped with dynamo and batteries, the dynamo belt should be removed and batteries disconnected or the links from the battery fuse boxes removed.

The fire appliances, if available in the train, should be made use of in all cases where the fire has broken in a closed place.

S.R. 6.10 (2) Wooden sleepers on fire - Guards and Drivers on seeing a wooden sleeper or any of the wood work of the line on fire must stop at once and extinguish the fire, taking care that it is done effectively, and that nothing is left smouldering when they leave the spot. The nearest SE (P.Way)'s gang and the first stopping station must be advised. The train staff may obtain the assistance of passersby or villagers to obtain water or assist and may pay, or promise to pay fair remuneration for their service.

1.5. Role of all individual railway staff on board:

1.5.1. ROLE OF AC COACH MAINTENANCE STAFF:

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

1.5.2. ROLE OF TRAIN CREW (LOCO PILOT/ASSISTANT LOCO PILOT, GUARD):-

1. Stop the train immediately.
2. Flasher light should be switched ON.
3. Arrange for isolating the affected coaches from other coaches by decoupling both Mechanical & Electrical couplers.
4. Provide anti rolling arrangement on the isolated coaches and trains as well.
5. In case of fire from the electricity, switch off the sources.
6. Arrange the stretcher and first-aid box for the injured passengers.
7. Report it to the nearest station/control/fire station.
8. Render first aid to injured passengers, obtaining assistance of the railway staff, doctors and / or volunteers on the help of Ambulance service, means available.

1.5.3. ROLE OF TRAIN SUPERINTENDENT / TTEs:

1. Don't panic.
2. Pull the Alarm Chain and stop the train immediately.
3. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules, if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
4. Advise passengers to take a cloth wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.
5. Arrange the stretcher and first-aid box for the injured passengers.
6. Insist that passengers should save themselves first and not to bother about their valuables/luggage which can be retrieved later on.
7. Locate the fire extinguisher substances viz, fire extinguisher, water bucket with water/sand, etc. Use water from the coaches.
8. Report it to the nearest station/control/control/fire station (fire services: 101, it can be dialled by mobile also)
9. Take assistance of volunteers from passengers, Railway employees travelling doctors on trains, on train, on-board contractor staff etc. In rescue operation.

1.5.4. ROLE OF PANTRY CAR STAFF:

1. Protect the inflammable available at pantry car.
2. Extinguish the fire by using fire extinguisher available at pantry.
3. Provide necessary assistance to TTE as directed.
4. Provide all possible help in fire fighting.

1.5.5. ROLE OF ON BOARD HOUSEKEEPING STAFF & TRAIN EXAMINER:

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

1.5.6. ROLE OF RPF/GRP:

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

1.5.7. Role of Station Master

1. On getting the information of fire, ensure that Controller is advised of the factual position and assistance required.
2. In case of passenger coach on fire, local fire brigades to be promptly arranged.
3. All officers/supervisors of various departments available at the station to be informed.
4. Medical aid to be promptly arranged in case of passenger coach on fire or when any injury reported.
5. Do not permit any train on the adjacent track.
6. OHE supply to be cut off advising TPC directly.
7. Fire alarm to be sounded.

1.5.8. Role of CTPC (Chief Traction Power Controller):-

1. Ensure that OHE supply is promptly cut off.
2. Order medical van in case of fire reported on passenger carrying train without waiting for further details.
3. Arrange to run medical van without delay.

1.5.9. Role of CTNL / Dy. CTNL:

1. Promptly inform fire brigade/medical authorities.
2. Order medical van immediately.
3. Advise DRM/ADRM/Sr.DSO/Sr.DOM etc.
4. Promptly inform C&W, Engineering, Loco, Commercial, Security, TRD Controllers.
5. In case of fire to a passenger carrying train civil authorities should be promptly advised.

1.6. When the fire is huge and not being controlled with the available resources, following action needs to be taken:**1.6.1 Formation of instant action team against fire: -**

An instant action team comprising the following available on the train may be formed by Train Superintendent/senior most CTI as follows:-

1. Loco pilot, Asst. loco pilot, Guard.
2. All TTFs, AC Coach Attendants, AC Mechanics.
3. Pantry car staff (railway and / or contractor)
4. OBHS (On-board Housing keeping Staff) (railway and / or contractor)
5. Train Examination staff (as provided on some trains)
6. RPF / GRP staff.
7. Railway employees either on duty or on leave as passengers travelling in the fire affected train.
8. Doctors travelling by Train.
9. Passengers travelling on the train who volunteer for rescue and relief work.
10. Railway staff working at site or available nears the site of the fire incident.

1.6.2. ROLE OF INSTANT ACTION TEAM:

1. Locate the fire extinguishing substances viz, fire extinguishers, water bucket with water/sand, etc. Use water from the coaches
2. Neither yourself nor let the passengers to be panic.
3. Pull the Alarm chain and stop the train immediately.
4. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules, if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
5. More people expire due to suffocation from smoke rather than due to actual burning. Advise passengers to take a cloth wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.
6. Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
7. Isolate the affected coaches from other coaches by decoupling both Mechanical & Electrical couplers.
8. Try and put out the very sources of the fire before it becomes a big blaze.
9. Turn off Electrical Appliances. In case of fire from electricity switch off the sources.
10. Report it to the nearest station/control/fire station. (Fire services: 101, it can be dialled by mobile also).

1.7. Relief to the injured passengers:

1.7.1. When a person is on fire:

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

1.7.2. Handling of injured passengers:

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

The above is a proposed standard operating procedure be adopted for maintaining the rolling stock, provision of effective fire fighting equipment, training of on-board staff, action to be taken in case fire breaks in a synergised manner for efficient firefighting skills.

HEADQUARTER DISASTER MANAGEMENT TEAM

31.0 Functioning of Disaster Management cell :

The Disaster Management monitoring cell will operate at HQ and shall be attended by nominated officers of Operating, Commercial, Civil Engineering, S&T, Mechanical, Electrical, Medical and Store department. Contact details BSNL no. 0141-2725806/2725817, Railway telephone no. 095-25680/25681. Emergency helpline no. 1072 and 182.

31.1 Safety department :

The Officer representing Safety Department shall co-ordinate the functioning of Disaster Management cell. He shall report the accident to Railway Board/CRS/GM and update the restoration details from time to time. He shall also monitor ordering of Relief Train for evacuation of involved passengers from the site of accident. The officers attending the Disaster Management cell shall obtain the full details of the accident from Divisional Control/Site of accident and shall monitor the movement of Breakdown Train and Relief Train. Top-most priority is to be given for rescue and relief operations' for transferring the injured passengers from the site of accident to the nearest hospitals and for sending medical aid from Civil/Military/ Private Hospitals.

31.2 Medical department:

The Officer representing Medical Department shall ensure utmost medical care and attention to the injured passengers. He shall ensure all medical assistance from the nearby resources. He shall obtain all details regarding casualties/injuries to passengers involved in the accident and shall maintain liaison with the Accident Site/Referral Hospitals and Dispensaries' and shall consolidate the list of injured/ casualties in minimum time so that the same can be faxed to concerned station/division for display in Emergency Control and Emergency Control and Emergency Information Booths.

31.3 Commercial department:

The Officer representing Commercial Department shall ensure ordering of refreshment for the passengers of involved train' payment of ex-gratia to the injured and to the next-of-kin of the dead passengers, arrange for transshipment of goods and passengers luggage, and hire private buses for transport of passengers from site of accident to the nearest Rail Head. He shall also ensure transmission of detailed information regarding injured/casualties to originating/destination stations, to railway Board, and to Headquarters of the originating/destination Railways. He shall also ensure opening of Emergency Information Booths at important Junction stations en-route within the Railways.

31.4 Operating department :

The Officer representing Operating Department shall manage relief and restoration operations at headquarters level. He shall record all events related to the accident chronologically. He shall ensure regulation and diversions of trains keeping in view the likely time of restoration at accident site. He shall ensure that the passenger carrying trains are regulated at such stations where water and catering facilities are available. He shall also monitor the ARTs/ARMVs/Labour Special trains ordered from the adjoining divisions and Zones.

31.5 Mechanical department:

The Officer representing Mechanical department shall monitor and assess the requirement of additional Medical Vans/Breakdown trains and shall liaison with adjoining railway/ Division for ordering the same. He shall also monitor the movement of breakdown trains. He shall obtain the details of rolling stock involved in the accident and its PRO particulars. He shall obtain the restoration details regarding re-railment/toppling wagons/coaches done by each individual Breakdown Train. He shall obtain the bio-data of the crew involved in the accident.

31.6 Engineering department:

The Officer representing Engineering Department shall obtain the information regarding damage to track and shall ensure ordering of material train if required. The details of track structure and relevant details such as USFD particulars, last inspections profile of the track etc. shall be obtained within minimum time. He shall organize ordering of additional Labour and material Specials as per requirement at site, from the adjoining divisions/Zones.

31.7 Electrical department:

The Officer representing Electrical Department shall obtain the details of extent damage to OHE/Loco. He shall obtain the bio- data of crew involved in the accident. He shall assess the requirement of additional material at the site and shall organize movement of Tower Wagon/ Material-Special to site of accident.

31.8 S&T department:

The Officer representing S&T Department shall ensure efficient communication. A line should be dedicated for the emergency transmission from site of accident/division control to Disaster Manager Cell at HQ. He shall ensure installation of BSNL Phone/Railway Phone at the site of accident involving passenger train. He shall obtain the details of S&T gears involved, if any in the accident.

31.9 Security department:

CSC/Dy.CSC will monitor crowd management and co-ordinate with State police for maintaining and order He will ensure protection of the belongings of affected passengers and render every assistance to them. Maintain and protect railway properties during public agitation. Maintain liaison and coordination Army/Paramilitary forces for assistance.

31.10 Quick Response Team OF NWR

DESIGNATION	NOMINATED AS
Additional General Manager/ Principal Chief Operating Manager	Team Leader
Principal Chief Operating Manager	Alternate team Leader and Member-1
Principal Chief Commercial Manager	Member-2
Principal Chief Mechanical Engineer	Member-3
Principal Chief Electrical l Engineer	Member-4
Principle Chief Engineer	Member-5
Principal Chief Signal & Tele. Communication Engineer	Member-6
Principal Chief Safety officer	Member-7
Principal Chief Security Commissioner	Member-8
SDGM & CPRO-Member	Member-9

31.11 Standing Spot Purchase Committee–

Stores Department During restoration, Stores Dept shall play a pro-active role in making emergency purchases preferably by standing Spot Purchase Committee and supplying the same to the user departments at sites. Formation of standing Spot Purchase Committee in compliance of HLC recommendation No.38 issued vide CRSE Letter No.M426/1/HLC Report/Item no.38 dated 06.04.2004 is given below:-

Level	Permanent Std. Spot Purchase Committee	Optional Member Associated	Remarks
Divisional	Sr.DMM, Sr.DFM & Sr.DME (C&W)	1.Sr.DMO-for ARME 2.Sr.DEE-for Electrical Items	In absence of JAG officers, Sr. Scale officer can be Nominated
Headquarter	Dy.CMM (Dealing with Mech. and Elect. Items) Dy.FA&CAO(Stores) Dy.CME (C&W)	Dy.CEE/HQ-for Electrical Items Dy.CHD- for ARME related items	-----

31.12 Zonal Level Crisis Management Group

Zonal Level Crisis Management Group		
Designation	Office telephone	Mobile
AGM/ Convenor		9001195001
PCE- - Alt. Convenor	2725871	9001195200
PCSO	2725920	9001195910
PCSC	2725808	9001195700
PCPO	2725925	9001195600
PCOM	2725900	9001195900
PCME	2725895	9001195400
PCEE	2725865	9001195300
PCSTE	2725821	9001195800
CPRO-Liaison Officer	2725803	9001195006

31.13 Nodal officer at Railway Board:

Mechanism for flow of information from the Site of Accident to State /Central Government. The ministry of Railway has Nominated Director Safety-II as the Nodal officer to provide information about any incident pertaining to Ministry of Railways.

Director Safety-II
Room No.355, Rail Bhawan
New Delhi-110001
Phone No. 011-23389987
Mobile No. 09810017905
Email-directorsafety2@gmail.com

CHAPTER 32

Capacity Building

32.1 Disaster Management Training

32.1.1 National Institute of Disaster Management (NIDM)

National Institute of Disaster Management (NIDM) has been envisaged as apex body on Disaster Management training & research in the country under the Disaster Management Act, 2005. NIDM runs several multi-disciplinary training programmes including the programmes on transportation related disasters in which railway officers have also been invited to attend. Services of NIDM may be made use of, if required, for training railway officials in Disaster Management at IRITM, Lucknow.

32.1.2 DM Training on Zonal Railways and Divisions

Training on Disaster Management being imparted to several tiers of railway officials through Railway Training Institutes as indicated below:

S.No.	Categories of Officials	New Training methodology and schedule
1	Top Level Management (GMs, PHODs, DRMs and other SAG/S4 Officers)	5-day Disaster Management Modules are to be delivered at IRITM/LKO @ once every 3 months. Frequency of Training: Once every five years for SG/SAG Officers and above.
2	Middle Level Management (SG & JAG officers)	IRITM, LKO is conducting a special module on Disaster Management developed by them Frequency of Training: Every SG/JAG officer need to under go the module once every five years.
3	Lower Level Management (SS & JS officers including serving Group B officers).	Disaster management training to be imparted at IRITM/LKO Frequency of Training: Once every five years.
4	Probationers and Group B officers attending induction courses	To be covered during the regular training programme at NAIR/Vadodara. Frequency of Training: As part of the course.
5	Supervisors of all frontline departments (Mechanical, Electrical, Engg., S&T, Traffic Comml. & Optg.)	One-week course at ZRTIs Passing this course is compulsory for promotion to SE and above. Frequency of Training: Once every five years.
6	Railway Staff on board passenger carrying train (TS, Dy.TS, TTEs & catering staff of Commercial Department, Coach attendants and AC Mechanics from Electrical Departments, some of the selected coach cleaners of Mechanical Departments, some of the RPF escorting staff and catering staff of contractor wherever out-sourced).	Disaster Management being a multidisciplinary effort during field operations, training in groups of such on board staff is more desirable and efficient then training them category wise. Role of on board railway staff has been a matter of great criticism in most of the serious train accidents. On board staff are the first railway representatives to respond to any untoward incident and their empowerment will improve railways response in a big way. Such staff is to be trained in appropriate multidisciplinary groups at such locations in the divisions where there is concentration of such staff to obviate the need for their hostel accommodation, non-availability for longer periods, etc This training can also be imparted in the Customer Care Institute . Only few

		select staff of Mechanical, Electrical (AC), RPF is to undergo this training who are deputed to escort trains. This training will be made mandatory in a phased manner for any staff to go on-board a passenger train. The staff of catering contractor is also to be imparted this training in Phase 2 to leverage their physical presence. Frequency of Training: Once every three years.
7	Nominated ARMV and ART staff of Mechanical and Medical departments	Composite training of Mechanical and Medical Staff for relief and rescue operations is planned to be given at upcoming disaster management railway institute at Bangalore. Doctors and paramedics nominated for ARMVs and other rescue operations should be exclusively trained on trauma care management either at some nominated specialized institutions or in-house. IRITM is one of the Training Institutes under consideration. Frequency of Training: Once every three years.
8.	Disaster management team of RPF staff & other RPF personnel associated with relief rescue operations.	DM teams should be trained in providing necessary support on relief rescue operations. The existing 5 day training module should be appropriately revised to make it suitable to achieve the above objective. Each of the above teams should be trained on this module at RPF Academy at Lucknow. In addition, training module may be appropriately developed separately for RPF Officers and staff and should be imparted at RPF Academy at Lucknow. The respective training modules should include role of RPF at the accident site, security at the railway premises like railway stations, trains etc. Frequency of Training: Once every three years for disaster management team of RPF.
9	RPF Officers	Disaster Management training for RPF officers may be also organized in IRITM till such time the capability in RPF academy is developed. Frequency of Training: Once every five years for other RPF officers and staff.

32.3 Some important thing-

- (i) Mechanical(Traction) is the Nodal Directorate in Railway Board for Train Accident Management which includes all aspects of Policy on ART/ARME/Cranes and rescue, extrication, fire fighting equipment etc.
- (ii) A nodal Training Institute for specialized rescue/extrication etc. For officers and for subordinates is being set up in Bangalore; the work on this Institute is being coordinated by Mechanical (Traction) dte. Railway Board.
- (iii) IRITM/Lucknow has been nominated as the nodal centre for training on general aspects of Disaster Management for the senior and middle level officers (including Senior Management Level Officers). Training modules are being set up at ZRTI at Udaipur and Bhuli for Disaster Management training of other Railway officials.

- (iv) Respective Training Institutions on each zonal railway will ensure that the modules prescribed above are institutionalized and officials are imparted training to build the capacity on disaster management on human resource front.
- (v) Officers and staff of NW Railway are being given training in Disaster Management at RSC-BRC, IRITM- Lucknow, and ZRTI-UDZ as per the Rly. Boards letter No.E (MPP) 2009/3/1 dated 20.01.2009. Division will arrange Disaster Management training of ART/ARME staff, Railway staff on Board Passenger Carrying Trains, Coach Attendant, Catering Staff, AC mechanics, Coach Cleaners etc. At training centers available on Divisions.
- (vi) Till now any training on the subject of Disaster Management implied subjects connected with Train Accidents only. There is no training given for natural calamities or for terrorism related items and Biological, Nuclear Disasters etc. Hence the subjects of Disaster Management are more vast and varied. It is essential to train our staff to meet challenges for any type of disaster. Even training is to be combined for all the "On Board Train Staff" so that they can meet the challenges together. This will include training of even Non Railway employee giving their service on trains.
- (vii) ZRTI Udaipur is giving training in Disaster Management to all the Accident Related Staff like Guards, Drivers, SMs, Tis, PWIs, SSEs(C&W), Commercial and Electrical staff etc.

32.4 Disaster Management training for Front line Staff is planned as per RB Letter No. 2001/Safety/DM/6/4 dated 27.04.2015.

- (i) Four week training for instructor of Training Centers and Nominated Supervisors of ART/ARMEs by NDRF at ZRTI/UDZ
- (ii) All Front line staff for one week training
- (iii) Nominated C&W staff and ART/ARME staff for Two week Training
- (iv) Induction and refresher course are being conducted at DTC/STC/ZRTI/UDZ regularly.

**32.5 Action Plan of Railway to upgrade Disaster management of Railways-
Crack Team of Rail Rescue Experts: -**

The Committee recommends that each zone should have a professionally trained **Crack Team of Rail Rescue Experts** (Mechanical and Medical officials) and containerized hospitals based at headquarters who can be rushed to any site of accident by air/land route at short notice. This group will continuously be exposed to the latest rescue, extrication techniques and medical relief. This group will support the accident rescue and relief arrangements made by Divisions at the site of accident.

- Railways should form professionally trained crack Team which can be located at 3 locations viz., Bangaluru (SWR), Kharagpur (SER) and Lucknow (NR) to start with. Provision of Safety Parks at these locations has already been communicated to these Zonal railways.
- Railways should plan to give Training to 50-70 Trainers per zone and for crack teams and these trainers can then provide training in their respective Department. Staff will be deputed from various departments for training in Safety Parks as soon as these Safety Parks start functioning.
- Issue of providing the rescuing equipments to these on board staff trained to act as MFR. Rescue equipments to be identified and procured by mechanical department and medical equipments to be identified and to be procured by medical department. Proposal to be co-ordinated by CME for rescue equipment, CMD for medical equipment.

32.6 Mock Drills of ART/ARME and full scale disaster exercise

Trained manpower is an essential ingredient of any DM system. Mere provision of sophisticated equipment without trained manpower is futile. For handling an unforeseen situation like managing a Disaster, Training of all railway personnel concerned is an inevitable input. To acquire necessary knowledge and skill, all relevant officials should be given periodic training regarding their duties and that of their department.

1. Training

Training should be conducted following three levels :

- i) Individual Training: For enhancing the skill of staff attached to ARMVs, ARTs, etc. supervisors and staff shall be given general training given Disaster Management.
 - ii) Special training may be arranged in Extrication, Rescue, Medical relief, Rolling stock restoration technique and Civil Defence by departments concerned.
2. Seminars/ Workshops: Seminars should be periodically conducted on Disaster preparedness, and the DM Plan.
 3. Joint Exercises: Full scale Disaster Management Mock Drill to be conducted as detailed below.

A. Mock Drill

1. Nomination should be made of staff who are to attend ART/medical van/Auxiliary van attached to the medical van.
2. List of equipments as laid down by the accident manual should be exhibited by each Branch quoting relevant para. The actual number available should be indicated against each time.
3. The mock drill means turning out both ART and medical van (with auxiliary van) participation of all nominated staff Supervisors & Officers of the Departments concerned. The ART/medical van should be run also to one or two stations and all staff should accompany. Staff should realise their functions in a well-knit team.
4. Frequency - Once in two months irrespective of the fact whether ART/medical van was turned out earlier due to accident or not.
5. Supervision - By a senior scale officer nominated by the DRM. A Programme for next 3 months should be drawn up by the Sr. DSO/DSO and approval of DRM obtained. The actual date, time should be left to the officer. DRM should be taken into confidence in this matter.
6. The officer conducting the drill should submit a report to the DRM and Sr. DSO/ DSO in the following proforma. A copy of the report to be placed in Inspection Register and ART/Medical van also.
 - (a) Details of accident.
 - (b) Time advised to Control/Shed.
 - (c) Arrival at station.
 - (d) Departure at
 - (e) Arrival at
 - (f) Time taken against the target with reasons.
 - (g) Remedial action suggested.
7. Attendance of each Branch –Findings, Nominated, Actually attended. Non attendance to be reported by name to the DRM/Branch Officer.
8. Testing of and deficiencies in equipments - Details to be recorded by each branch Official incharge.
10. Whether double entry is provided or was kept free. A copy of the report of this mock drill should be incorporated by each Sr. DSO/DSO in the monthly P.C.D.O. which is sent every month to the C.S.O.

B. Full Scale Mock Drill:

Disaster management essentially necessitates a state of preparedness under all circumstances and the efficacy of arrangements therein can be assessed only by conducting periodical full scale mock drills.

- i) Objective of the full scale mock drill would be to:
 - Gauge the preparedness of DM system including detailed planning and keeping of all equipment in good fettle.
 - Integrate the operational response to measure overall performance of the exercise.
 - Measure performance with regard to accident restoration.
- ii) On a division, the first mock drill should be conducted within 3 months of issue of the zonal DM plan.
- iii) On a division, the second mock drill should be conducted 3 months after the first one, in order to correct all shortcomings noticed during the first mock drill.
- iv) There after, mock drills shall be conducted once every 2 years after the new DRM takes over.
- v) It should be conducted during the day and in a branch line section.
- vi) Traffic block shall be taken and the ARMV /ART run out to the accident site.
- vii) UCC and CAC should be set up and each department will post their functionaries in the control office as also in UCC and CAC.
- viii) All facilities should be provided in UCC and CAC by departments concerned.
- ix) During the full scale mock drill following expects shall be closely watched.
 - Turning out of ARMV/ART within the prescribed time.
 - Speed of the specials.
 - Handling of ART, HRDs, HREs and other rescue equipments Logging of events.
 - Functioning of field telephones and communication network functioning of generator sets, lighting equipment.
 - Preparedness of first- aiders and availability of medical equipment.
 - Preparedness of commercial department to mobilize adequate manpower.
- (x) On completion of the drill, a detailed report shall be prepared detailing deficiencies noticed, corrective measures initiated and improvements required.

Vide Railway Board No. 2010/Safety (DM)/6/23 New Delhi, Dated 09.03.2017, Instructions on Mock Drill and Full Scale Disaster Management Exercises are under:

1.0 Aim and Objectives:

Mock Drills provide virtually the only means, short of an actual incident, of measuring the state of readiness and of testing the effectiveness of an emergency response plan. The real purpose of mock drill is to make all Railway Staff who have specific duties to perform in case of an accident, to practice their duties regularly and test check the equipment so that in real emergency they perform their duties like a well-rehearsed team.

The Aim and objective of Mock drill is to:

- To evaluate response.
- To evaluate readiness of all stake holders.
- To improve coordination within departments.
- To identify the efficacy of SOPs.
- To revise SOPs 'for enhanced coordination.
- To identify planning gaps.
- To increase emergency preparedness of staff members.
- To enhance the ability to respond faster.

2.0 Periodicity

Mock drills have to be conducted once in every quarter either during day or night. It is desirable not to repeat the drill again and again at the same time or section. However, if ART/ ARMV is turned out on account of accident in that quarter, the periodicity may be reckoned from that date. At a particular station if both ART/ ARMV are stationed, alternatively ART and ARMV needs to be turned out quarterly. Full scale disaster management exercise has to be conducted in a division once in a year as recommended by High Power Committee on disaster Management.

3.0 Responsibility for conducting the Mock drills and full scale disaster management exercises.

To have an element of surprise mock drills shall be ordered by the DRM and drills shall be conducted under the direct supervision of Sr.DSO /DSO. Secrecy and confidentiality shall be maintained to extent possible. Sr.DSO/DSO shall be responsible to conduct full scale disaster Management Exercises.

4.0 Who has to associate with these exercises

Doctors, paramedics and the usual break down staff should travel by these trains exactly as they would have to in case of an accident. Railway Ambulance should also be turned out. The officers and staff of such other departments who have specific duties to perform in case of accidents but may not have to accompany such trains should also participate. District administration to the extent required also has to associate with these drills.

5.0 Activities to be monitored during Mock drill.

- Turning out of relief trains within prescribed time.
- Speed of specials
- Attendance of staff
- Whether correct information given to control particularly in respect of nature of assistance required.
- Action taken to stop any approaching train if any.
- Medical assistance available mustered in full strength and calling out of local ambulances.
- Time at which first ambulance reached the spot.
- Response of the local administration like police, fire brigade etc.,
- Time taken to set up field telephone.
- Time taken to set up rescue equipment.
- Staff conversance in usage of equipment.
- Working of select equipment shall be test checked.
- Logging of events.
- Mock drill shall be called off by Sr.DSO/DSO after consulting DRM.

6.0 Procedure for full scale Disaster Management Exercises

Full scale disaster management exercise is a planned activity to check complete preparedness, response and functioning of all stake holders in case of disaster. Station at which these exercises are planned should be selected in due consultation with DRM and Operating officers to ensure least disturbance to train operations. In these exercises in addition to the activities to be carried out in mock drill indicated in para 5.0, the following shall be carried out.

- Accident like situation has to be created like one coach over another so that rescue operations can be similar to an accident site.

- All the stake holders have to be involved in the rescue and relief operations.
- All the activities prescribed in the Accident Manual/Disaster Management plan regarding setting up of UCC, LCC, CAC etc., have to be carried out.
- Railway staff can double up as injured passengers with various types of injuries and handling: of such passengers by rescue staff needs to be observed/recorded.
- Time taken to set up rescue equipment and time taken to rescue first person should be recorded.
- All the equipment is ARMV/ART have to be physically tested for their performance and endurance.
- All the activities need to be video graphed for post analysis and also for training purpose.

7.0 Reporting and follow up action.

Detailed report of the mock drill and full scale disaster management exercise shall be prepared by Sr.DSO/DSO duly indicating attendance of nominated staff from each branch, non-attender to be reported by name, deficiencies in the equipment, gap in the disaster management plan and SOPs etc,. The report should also include any improvement or otherwise in the deficiencies observed in the previous drills. Sr.DSO /DSO shall monitor the action taken on the deficiencies by the respective departments.

Inspection of ART/ARME

1. ART Inspection

Frequency	By Whom
Monthly	Joint by SSE of C&W, Electrical, S&T and Engineering
Bi-Monthly	By JS/SS officers of C&W, Electrical, S&T and Engineering
Half yearly (Joint)	Jointly by JS/SS of C&W, Electrical, S&T and Engineering
	Joint by BO's of C&W, Electrical, S&T and Engineering
Yearly	Jointly by BO's headed by ADRM

1. ARME Inspection

Frequency	By Whom
Monthly	SSE of C&W, S&T, Electrical , SM and ADMO jointly
Quarterly Jt. Inspection	JS/SS of deptt. concerned
Half yearly (Joint) Inspection	BO's of deptt. concerned
Yearly Joint Inspection	by BO's headed by ADRM

Disaster Management-Prevention and Mitigation

33.0 PREVENTION AND MITIGATION PLAN FOR ACCIDENT

Prevention is to ensure that human action/natural phenomena do not result in disaster/emergency. Primary prevention is to reduce –avert-avoid the risk of event occurring, by getting rid of hazard/vulnerability. Secondary prevention means reorganize properly the event and to reduce its effects. Prevention is concerned with policies and programmed to prevent recurrence of disaster and covers long term aspect of such disaster.

Mitigation means to reduce severity of human and material damage caused by Disaster.

Objects of mitigation are –

- a) Save Lives
- b) Reduce economic disruption,
- c) Decrease vulnerability/increase capacity
- d) Decrease chance/level of conflict,
- e) Matching increase in maintenance support system (both manpower and equipments).

33.1 Safety Action Plan initiated to prevent and mitigate Disaster.

- i. Replacement of over- aged and redundant assets are being taken care of by Railway.
- ii. Rehabilitation/rebuilding of bridges on the basis of technical obsolescence will be taken up in phased manner.
- iii. Over aged rails, turn-outs, ballasts, wooden sleepers, ST&CST by PSC sleepers, through weld renewals, CTR, TRR, TSR etc. are done on regular basis.
- iv. Maintenance of track and its monitoring are done intensively.
- v. Vulnerable areas are inspected frequently and their patrolling is done in seasonal basis and as and when required. Sabotage prone areas are patrolled in emergency and anti-sabotage measures are taken for protection of tracks.
- vi. Over- aged locos, coaches and wagons are replaced by Railway in time phased manner.
- vii. Zero defects and Zero missing safety fittings are ensured at the time of turning out of rolling stock from workshop, loco shed and sick line. 100% Brake powers are ensured on air brake trains from originating station/yard. Guide line on overdue maintenance of rolling stocks is strictly followed.
- viii. Overdue lever frames, signal gears are replaced by panel interlocking.
- ix. Track circuiting, provision of BPAC, Data-logger, and LED based signal light and interlocking of L.C gates are being provided through Safety Action Plan.
- x. Manning of unmanned level crossing having heavy road/rail traffic, deployment of gate mitras at UMLC, construction of ROB/RUB and limited height subways are planned with coordination with state government. Some unwanted unmanned and manned level crossings are to be eliminated.
- xi. Basic infrastructures are provided at manned and unmanned level crossing gates
- xii. Technological inputs are given priority in maintenance of tracks, rolling stocks, signals and telecommunications and IT.
- xiii. Instruments/Devices like USFD, GPS, VCD, Thermit welding, twin beam head light for locomotives, fire retardant materials, provision of emergency exit window, auto flasher light

and provision of micro processor- based speed recorder and electronic brake system etc. are guarantying safety in system.

- xiv. Addition of technical inputs will be carried in the system of assets maintenance. Equipments like TAWD, ACD, and TPWS are to be planned to plug the human failure and to ensure safety in due course of time.
- xv. Long-hours duty, sobriety test on board and filling up the vacancies in safety cadres are monitored on regular basis. Ten hours rule will be implemented with all sincerity.

33.2 Human resource development is managed through

- 1) Formal training in training schools
- 2) On job training in workshops, loco sheds and maintenance depots.
- 3) Safety seminars are organized to instill safety awareness on different tropics. Front line staff and supervisors are imparted on job training on newer technology and equipments. Training on Disaster Management is given to officers and supervisors in different institutions to meet any emergency. Focus on development of man power through major improvements in working environment and training will be given priority.
- 4) Inspections and Counseling are being conducted in regular basis by all the departmental officers and supervisors and follow up action on field inspections are also monitored properly.
- 5) Safety-Audit Inspections are done on inter Railway and inter Divisional basis of critical Railway establishment.
- 6) Alert-Advices are issued from time to time and Safety Drives are conducted against the weaknesses of the system for rectification.
- 7) Accidents are taken seriously and all accidents are enquired into and remedial measures are taken to avert the recurrence. D&A action are initiated against the culprit. GM & AGM/DRM are accepting the findings and review of all accidents enquiry reports.
- 8) Coordination with other Government agencies for promoting safety at level crossing is maintained. Media campaigns are launched time to time.
- 9) In case of any Disaster, Government, Non-Government organization and private agencies are mobilized to meet the emergency jointly to save life and property of people involved. Civil and Private Hospitals are also tied up with railway medical department to get medical assistance in time to save the precious life of injured passengers. Fund required for medical assistance is met with SOP on Disaster Management.
- 10) Ultimate motto to reduce the humans suffering and material damage is always given paramount importance before and after the accidents. To reduce the vulnerability and to increase the capacity are always kept in mind while dealing with prevention and mitigation of Disasters.

3.3 Preventive measures to prevent accident on Indian railway

33.3.1 Engineering Department

33.3.1.1 Rail/Weld fractures

Rail/Weld fractures have direct impact on safety. Following are proposed to reduce the incidences of Rail/weld fractures.

- (i) Improvement of quality of rails** –Increasing fracture toughness, ductility, weldability and corrosion resistant properties of rails helps in reducing sudden failures of rails. This will need addition of alloying material in various proportions; study in this direction is in progress in collaboration with SAIL.

Increased Axle Load has necessitated production of Head Hardened Rails and Rails with Higher UTS (110 UTS). Studies are in progress in association with SAIL to develop such rails for use on Heavy axle load routes.

At present, Bhilai Steel Plant of SAIL is producing 65 m long rails which are being welded in Bhilai Steel Plant to make a rail panel of length 260 m. These long rail panels are being directly transported to the site thereby reducing the number of welds and the multiple handling of rails thereby improving the quality. Bhilai Steel Plant of SAIL is installing a new rail rolling mill at Bhilai using state of the art technology. In this new mill 130m length rails will be rolled and with a single weld 260m rail panel will be prepared.

- (ii) USFD Testing of rails** –To make USFD more reliable, improvement in USFD technique is necessary. The Railways have introduced need-based concept of USFD testing of rails, under which the rails already laid in track are being tested after the passage of stipulated GMT of traffic. The improvement in quality of testing is also planned by use of digital type Ultrasonic Flaw Testing machines replacing existing analogue type Ultrasonic Flaw Testing machines. Digital Testing Machines for USFD testing of rails and welds are capable of data logging, saving and transferring scan to computers while this facility is not available in analogue type of machines.

- (iii) Improved Thermit Welding** –here is a scope of improvement in Thermit welding techniques being used at present. Based on studies done, significant improvement has been made in welding techniques to reduce dependence on human judgment. The use of Compressed air heating, three piecemoulds and automatic Tapping thimbles have been made mandatory for welding on Broad gauge track.

- (iv) Reduction in thermit welds by mobile flash butt welding**–Alumino-Thermit (AT) welds are the weak links in track, whose population is being gradually reduced and replaced by Flash Butt (FB) welds. As a first step flash butt welding has been introduced in all construction projects. This is to be gradually extended to other areas.

33.3.1.2 . Rail Fracture Detection System –

Rail/weld failures are potential safety hazards. Advanced Railway systems are using the systems, which alerts all concerned in case of failures and train operations are controlled to prevent consequential train accidents. No such system is available on IR. Suitable technology will be developed in association with advanced railway systems for use on IR. It is proposed to install broken rail detection system on NR & NCR on trial basis. After successful trial, this system will be progressively installed on other important routes.

- 33.3.1.3 Wheel Impact Load Detector (WILD)**–WILD is used to manage the wheel impact load spectrum for targeted removals of defective wheels from service. The WILD continually monitors locomotives and vehicle wheels health to ensure safe train operations. In WILD system, if any wheel generates a force that exceeds a tailored alarming threshold, a report identifies that wheel for action. A maintenance alarm identifies vehicle for preventive maintenance at the next available opportunity and a critical alarm directs a train to stop as quickly and safely as possible.

33.3.1.4 Action Plan for Road Users' Safety

To reduce accidents at manned and unmanned level crossing gates, IR will adopt following multi-pronged strategy:

- a) Existing task force of the Ministry of Railways and State Governments for construction of ROB/RUBs would be made more effective.
- b) Items to be resolved between the Ministry of Railways and Ministry of Road Transport and Highways.
- c) Speed breakers at level crossings, their standards and maintenance.
- d) Testing of driving license applicant with regard to thorough knowledge pertaining to level crossings.
- e) Widening of roads at selected high density locations to ease movement.
- f) Training and counselling of road users.
- g) Lifting barriers with retro-reflective markers in lieu of gate leaves shall be provided on double and multiple lines.
- h) On manned level crossings, with more than 500 road vehicles per day and where possible, the road width shall be widened in railway land.
- i) Signalling Systems like Interlocking arrangements and provision of telephones at LC gates enhances safety considerably.
- j) Manned Level Crossings, has been interlocked and provided with signals.
- k) Inclusion of Dos and Don'ts near level crossings in primary school curriculum.
- l) Intensive social awareness campaigns to counter misadventure in front of approaching trains.
- m) Basic infrastructure on all unmanned level crossings will be ensured and it includes provision of adequate width, normal gradient, level surface for 5 m from centre of the nearest track, Whistle Boards in retro-reflective sheets, specified Road Warning Boards, road surface in good condition and speed breakers/rumble strips etc.
- n) Periodic census of level crossings will be carried out by multi-disciplinary teams.
- o) Compulsory whistling by train drivers by linking loco whistle to the Vigilance Control Device (VCD).
- p) On sections where there are a number of unmanned level crossings, at close proximity, RUBs may be constructed at a convenient location and the remaining level crossings closed.
- q) Checking visibility levels at all unmanned level crossings, and taking corrective action for their improvement.
- r) Appropriate approach road gradients within railway boundary to be ensured.

33.3.1.5. Provision of Road Over/Under Bridge

As a policy, Road Over/Under Bridges are to be provided in replacement of all level crossings on cost sharing basis where the TVUs (number of trains x number of road vehicles in 24 hours) exceed one lakh. On NWR, there are 77 level crossings where the TVUs are more than one lakh and have already been sanctioned as on 01.04.2016, for replacement with ROB/RUBs. There are still 76 level crossings with TVUs of more than one lakh as on 01.04.2016 where the ROB/RUBs are yet to be sanctioned. These will be sanctioned progressively depending upon the response of the State Governments for sharing of the cost and their sponsoring them for the same.

33.3.1.6. Provision of Limited Height Subways (LHS)

Wherever, feasible and agreed by state government, LCs (both manned and unmanned) are being replaced by LHS.

33.3.1.7. Patrolling of track

Hot weather: In the summer season, in LWR/CWR sections, the hot weather patrolling is carried out when the temperature reaches $T_d + 20^{\circ}\text{C}$ and above.

Monsoon: During monsoon season, the monsoon patrolling is carried out in the sections as identified and notified by the sectional Sr. DEN/DEN of the division.

Winter: In winter season, in the LWR/CWR track the cold weather patrolling is carried out when temperature falls as $T_d - 30^{\circ}\text{C}$ and below.

Security: Security patrolling of track is carried out during civil disturbances and for movement of the VIP specials in the division.

33.3.2 Mechanical

1. **Train Protection Warning System (TPWS):** Not applicable on NWR
2. **Train Collision Avoidance System (TCAS):** Not applicable on NWR
3. **Wheel Impact Load Detector (WILD):** Requirement of NWR has been communicated to Railway Board for central procurement.
4. **Better and Safer Coaches:** Pertains to Railway Board.
5. **Retro fitment of crash worthy features such as crash buffers and anti-climbing modifications in conventional coaches:** Not allotted to NWR
6. **Fire detection and suppression system in AC coaches:** Not allotted to NWR
7. **Fire detection and suppression in NAC coaches:** Not allotted to NWR
8. **Automatic door closure mechanism in coaches:** Not allotted to NWR
9. **Redesigning/refurbishing of interior of coaches and interior fittings for better occupant safety:** Coaches are being provided with fire retardant material such as fire retardant curtains and partition paneling, roof ceiling, PVC flooring, cushioning material for seats & berths, Rexene & fabric upholstery for seats and bearts, FRP windows & UIC vestibules etc. in the interior as per RDSO guidelines.

10. In-motion Weighbridges:

The in-motion weighbridge helps detect overloading in wagons. This reduces fatigue of rail/welds and, therefore, reduces chances of fracture. 20 nos. in-motion weighbridges are available on NWR 1 more is likely to be installed soon.

11. Action Plan for Road Users' Safety

Compulsory whistling by train drivers by linking loco whistle to the Vigilance Control Device (VCD)- Instructions have already been issued.

12 Curbing Fire hazards in Pantry Car

With a view to curb fire hazards in pantry car, Board has issued guidelines for upkeep of pantry car equipment to ensure that all equipment and gadgets are in working order and in safe condition: Instructions have already been issued.

33.3.3 Signal and Telecommunication Department

1. Signalling

a) Track circuiting:

Track circuit is one of the most important safety aids provided at the stations, which has reduced collisions in station area. On NWR all stations on 'B', 'D' & 'D Spl' routes except Baisgodam station (JP division) have been provided with complete track circuiting. On 'E' route out of 217 stations, 177 stations have been provided with complete track circuiting and the work is in progress at balance stations.

- b) **Provision of Centralized Operation of Points and Signals by Electrical / Electronic interlocking with MACLS** is the most important system for safety, efficiency & flexibility in yard operations and for incremental line capacity and has been steadily provided on NWR. Route Relay / Panel / Electronic (RRI/PI/EI) along with MACLS have been provided at 371 stations out of total 416 stations on BG route. The works of Replacement of mechanical signalling / SM slide with RRI/PI/EI are in progress.
- c) **Elimination of Semaphore Signalling** is necessary for improving visibility and efficiency of signalling system on these stations. On NWR 24 stations are equipped with Semaphore Signalling. These stations have been taken up for elimination of Semaphore signalling.
- d) **Provision of Isolation and Elimination of Rudimentary Interlocking and Up gradation of Standard Interlocking** has assumed importance with growing traffics and speeds after a few serious accidents took place in recent years. Yard layouts and the corresponding signalling system at some stations require up gradation. Main line is not isolated for run through trains and complete track circuiting is not available resulting in imposition of speed restrictions in Yard and at times an unsafe situation is created. The work of up gradation of standard of interlocking with provision of Standard layout with Isolation is in progress at 42 balance stations.
- e) **Token Ball Instruments:-**
Token Ball instruments are outdated equipment still in use on NWR. A decision in this regard has been taken to eliminate Token Ball Instruments by Token less Block Working by March 2018. On NWR there are 26 block sections having Token ball block instruments on BG network which are planned to be eliminated.
- f) **Block Proving by Axle Counter:-**
All new works of Panel Interlocking (PI/EI) are provided with Block proving by Axle Counter device to prevent collision in the block sections due to some 'parted' load being left out. BPAC have been provided at all PI/EI/RRI stations (371 stations).
- g) **Centralized On-line Monitoring, Predictive Maintenance and Asset Management System** with Digital mapping for every signalling installation to improve system availability besides providing event analysis tools has been provided at 387 MACLS stations.

2. Telecommunication

a) Control telephone System:-

All stations are connected with control telephone system to ensure that train operation is done safely as per the rules and no untoward incidence takes place.

b) Level Crossing Gate telephone system:

All manned level crossing gates are provided with gate telephones, so as to avoid road accidents while Road vehicle crossing the Railway track.

c) Emergency Communication System:-

Provided all along the track so that Guard/Driver and other maintenance staff can advise to the emergency control office about any irregularity on the track and prevent the untoward incidence.

Rjasthan State Disaster Managemnet Authority

34.1 PREAMBLE:

- (i) State Government is primarily responsible for disasters/crisis management including prevention and mitigation. The existing State Relief Codes/ Manuals/ Book of Circulars guide the entire process of administration of relief and recovery in the State. These Codes/Manuals/compilation of Circulars mainly address post-disaster events and the scope is limited to some of the natural hazards – floods, hailstorm, droughts & earthquake.
- (ii) The State is prone to many natural and man-made disasters. Natural disaster vulnerability of the State is presented in the Vulnerability Atlas of India prepared by Building Materials & Technology Promotion Council (BMTPC), Ministry of urban Affairs & poverty Alleviation. The Atlas covers hazard vulnerability of the State to flood, wind and earthquakes. The State is also prone to fire outbreaks, major rail, road and air accidents, and industrial accidents.
- (iii) Disaster is a function of hazard (event), vulnerability and capabilities of the people. While some of the natural events cannot be prevented, the State Government can put systems in place to reduce the vulnerability and build a disaster resilient community. In order to reduce the impact of future disasters, there is a need to put in place very comprehensive guidelines for reduction of vulnerability to natural and manmade disasters. In the light of the above, the Government of Rajasthan has decided to amend the existing Codes/ Manuals/Compilation of Circulars to incorporate all necessary measures, which need to be taken for prevention, mitigation, preparedness and response, in addition to streamlining the relief and recovery administration.

34.2 OBJECTIVES-

The objective of the Code is to minimize the loss of lives and social, private and community assets because of natural and manmade disasters –

- (i) By providing efficient systems for cooperation and collaboration among all the Departments/agencies of the government at all levels and other related agencies of the Government of India including Armed Forces.
- (ii) Building capacities of communities and personnel at State/District and sub-district levels in effective preparedness and response.
- (iii) To ensure quick and effective response during disasters to minimize casualties and enable quick recovery.
- (iv) To provide the affected people with minimum relief.
- (v) To carry out restoration and rehabilitation measures without delay once the disaster situation is over. For rehabilitation and recovery, separate procedures will be worked out.

34.3 Institutional Mechanism for Disaster Management

The State Government is primarily responsible for management of disasters. The State has appropriate institutional setup for comprehensive hazard mitigation, preparedness, response and disaster relief and recovery, as explained in the following paras.

34.3.1 State Level:

The State has a dedicated administrative setup for disaster management at all levels with suitable horizontal and vertical linkages at various levels.

The State Government has constituted a State Disaster Management Authority headed by the Chief Minister to coordinate all disaster management activities among all line departments. The Authority consists of the following members:

- (i) Minister, Finance
- (ii) Minister, Water Resources
- (iii) Minister, Rural Development
- (iv) Minister, Health
- (v) Minister, Urban Development
- (vi) Minister, Home
- (vii) Minister, Agriculture
- (viii) Minister, Science & Technology
- (ix) Minister, Revenue
- (x) Minister, Transport
- (xi) Minister, Planning
- (xii) Chief Secretary
- (xiii) Addl. Chief Secretary, Development
- (xiv) Secretary, DM&R (Member Secretary)

34.3.2 Rajasthan State Disaster Management - Executive Committee

Chief Secretary	chairman
Principal Secretary, Disaster Management & Relief	Member secretary
Principal Secretary, Finance	member
Principal Secretary, PHED	member
Principal Secretary, Medical & Health	member

All decisions of the Authority will be deemed to be a decision of the Government and no further references will be required in order to implement the decisions taken by the Authority.

34.3.3 Disaster Management Group -Executive Committee

A Committee at the administrative level would be constituted under the chairmanship of Chief Secretary, which consists the following Secretaries of the Department as members:-

- (i) Addl. Chief Secretary, Development
- (ii) Home
- (iii) Finance
- (iv) Energy
- (v) Public Works
- (vi) Urban Development
- (vii) Medical & Health
- (viii) Public Health and Engineering & Ground Water
- (ix) Secretary to Chief Minister
- (x) Secretary, Irrigation
- (xi) Secretary, Agriculture
- (xii) Secretary, Animal Husbandry
- (xiii) Secretary, DM&R (Member Secretary)

- (xiv) Any of the following members may be asked to attend the meeting as and when required by the Chairman:
- (xv) Station Commander, Army and its nominee
- (xvi) General Manager, Railway
- (xvii) Director General of Police
- (xviii) Director General, Civil Defence
- (xix) Director HCM RIPA
- (xx) In-charge, Centre for Disaster Management
- (xxi) BSNL

The Department of Disaster Management will function as a Secretariat of the Authority, in addition to its other functions. The State Secretary of Disaster Management is also the ex-officio Relief Commissioner of the State in whom the power of administration of prevention, mitigation, preparedness, response and disaster relief and recoveries vests.

34.3.4 The State Government's efforts and Secretaries of Nodal Department in various aspects of disaster management is governed by the following provisions:

- (i) Prevention**—The Department of Disaster Management is a member of all the regulatory bodies in the State in order to ensure that measures required for safe planning are enforced. The existing Town & Country Planning Act, Industrial Master Plan and Land use Zoning Norms shall be evaluated to make necessary amendments to ensure that implementation of these Acts and Rules do not increase our vulnerability.
- (ii) Mitigation** - All State Plan Schemes will have mitigation in terms of their reference and Department of Disaster Management will be consulted before all plan schemes are formulated and implemented.
- (iii) Preparedness and Response** - The State Department of Disaster Management will be the Nodal Department for disaster preparedness, response and planning at all levels in the State Government. The Department shall prescribe the frequency of updation of the plans and also the frequency of drills to be organized to rehearse the plan from time to time.
- (iv) Relief and Recovery** – The Department of Disaster Management will be the Nodal Department for administration of relief and recovery programmes including management of Calamity Relief Fund.

34.3.5 District Level:

The District Collector will be responsible for coordinating all disaster management activities at the district level. There shall be a District Disaster Management Authority headed by Collector. The District Disaster Management Authority shall approve a district disaster management planning and review all measures relating to preparedness and response to various hazards. The District Disaster Management Committee comprises members from Zilla Panchayat, Zilla Parishad, different line departments, NGOs, district Red Cross and others to be notified by the Department of Disaster Management from time to time. In times of disasters, Distt. Collector shall constitute a District Relief Committee to oversee management of relief. This will be in accordance with the instructions issued by the Departmentt. of Disaster Management from time to time.

34.7 Preparedness

Mitigation and preparedness measures go hand in hand for vulnerability reduction and rapid professional response to disasters. Experience has shown that destruction from

natural hazards can be minimized by the presence of a well functioning warning system, combined with preparedness on the part of the vulnerable community.

(i) Incident Management Teams:

The state will constitute specialized teams at various levels for responding to disasters. These specially trained teams will be capable of providing specialized response to various disasters in minimum time.

a) State Level:

At the state level, Search & Rescue teams will be constituted from the State Police and will be provided with state-of-the-art equipment for immediate response. The State Home Department will designate the units for conversion into Specialist Response Teams (SRTs). The State will also designate training centers for training the SRTs and nominate key personnel within the Police Training Colleges and Fire Training Institutes as trainers and train them at the national level. These trainers will then impart training to the SRTs.

b) District Level:

Subsequently, Specialized Response Teams at the district level will be designated from the district level Police and Fire Service personnel and equipped for immediate response in any disaster within the district. In the event of a request from a neighbouring district these teams will be authorized to operate under the direction of the Collector of that district.

c) On-site teams:

Disaster Management Teams (DMTs) at the village level will operate as Incident Management Teams and will be trained to perform immediate rescue and first-aid operations in a disaster situation. A systematic approach should be evolved to ensure proper coordination between the SRTs and DMTs.

(i) Emergency Operations Centre (EOC):

In a disaster situation, variable factors of intensity, affected population and severity of damage need to be quickly assessed based on which government agencies can allocate and deploy relief. Therefore, in the event of failure of the normal management mechanism, an Emergency Operations Centre becomes a nodal point for overall coordination and control of relief work. The EOCs at the State and District will be activated immediately on the event of a disaster or a disaster warning. The primary function of these EOCs is to facilitate the smooth inflow and out flow of relief and other disaster response related activities. These EOCs act as bridges between the center, state and district. The EOCs have to be equipped with state of the art communication technology and GIS enabled systems for quick and effective decision making. The structure in which EOCs are housed must also be disaster resistant. The EOC should also be equipped with a Doctor and First Aid Equipment apart from its own administrative and maintenance staff. The EOC Incharge who has had substantial expertise in the area of disaster management and is familiar with the area of disaster should head the EOC. Since the EOC functions and activities require quick and spot decisions, the EOC equipment as well as manpower is required to be periodically evaluated and tested.

a) State Level:

The State Secretariat will house the EOC, which will be a multi-hazard resistant construction with latest communication system linkages, technologically advanced equipments and trained personnel to manage it. The EOCs will function as composite Control Rooms to look after law and order issues as well as disaster management.

b) District Level:

As in the state, a multihazard resistant building with state-of-the-art communication facilities will be made available round the clock.

c) On-site Teams:

A mobile EOC for on-site disaster management information will be functional under the supervision of the District Collector/Deputy Commissioners.

iii) Emergency Management Contact Directory:

An Emergency Management Contact Directory will be prepared and maintained, containing contact numbers of all the nodal officials in disaster management along with those of prominent NGOs. The Collector will supervise and coordinate the preparation and regular updation of this directory at the district level and send a copy to the State Department of Disaster Management.

iv) Preparedness actions by different Emergency Support Functions:

Emergency Support Functions (ESF) form an integral part of the EOCs; hence they should coordinate their activities from the allocated EOC. Extension teams and workers of each ESF will be required to coordinate the response procedures at the affected site. However, the identified ESFs should have a plan for mobilization, management and monitoring of their designated activities.

v) Mock drills:

The district police department, Homeguards, Civil Defence personnel, Fire Service officials, SRTs, QRTs, DMCs and DMTs will undergo periodic mock drills for different disasters, coordinated by the District Collector at the district level and by the Relief Commissioner at the State level. It is mandatory to have mock-drills at least twice in a year for fire and earthquake.

vi) Role of local-self governments in disaster preparedness:

The Chairpersons of the PRIs and ULBs will ensure necessary measures for warning dissemination, community awareness generation, evacuation drills and capacity building of their functionaries to be involved in disaster management.

34.8 Early Warning

Warning or Occurrence of Disaster-On the receipt of warning of alert from any agency which is competent to issue such a warning, or on the basis of reports from Divisional Commissioner / District Collector of the occurrence of a disaster, all community preparedness measures including counter-disaster measures will be put into operation. The Chief Secretary / Relief Commissioner will assume the role of the Chief of Operations for Disaster Management. It is assumed that the district administration would be one of the key organizations for issuing warnings and alert.

The following agencies competent for issuing warning or alert are given below.

Disaster	Agencies
Earthquakes	IMD
Cyclones	IMD
Floods	Meteorological Department, Irrigation Department
Road Accidents	Police
Epidemics	Public Health Department
Industrial and Chemical Accidents	Industry, Police, NPS, Rawat Bhata, District Collector
Fire	Fire Brigade, Police, Collector
Rail Accident	Railways, Police, Collector
Air Accident	Police, Collector, Airlines
Ammunition Depot-Fire	Army, Police, Collector

34.8.1 The occurrence of the disaster will be communicated to:

- (i) Governor, Chief Minister, Home Minister, Relief Minister and non-officials namely MPs and MLAs from the affected district.
- (ii) Chief Secretary, Principal Secretary, Disaster Management & Relief Department, Secretary, Disaster Management & Relief Department,
- (iii) Cabinet Secretary, Secretary, Home and Defense, Government of India.
- (iv) Secretary, Agriculture, and Joint Secretary, NDM, Ministry of Agriculture, GOI
- (v) Local Area Commander of the Army.

34.9 The Occurrence of the Disaster would essentially bring into force the following:

- (i) The Emergency Operations Centre will be put on full alert and expanded to include Branch arrangements, with responsibilities for specific tasks, depending on the nature of disaster and extent of its impact. The number of branches to be activated will be decided by the Chief of Operations.
- (ii) All Branch Officers and Nodal Officers will work under the overall supervision and administrative control of the Chief of Operations. All the decision taken in the EOC have to be approved by the Chief of Operations.
- (iii) Immediate access to the disaster site.
- (iv) Telephonic and VSAT, wireless communication and hotline contact with the Divisional Commissioner, and Collector/s of the affected district/s will be activated.

34.10 Nodal Department

The government by a separate decision has designated some departments as Nodal Department to deal with all the matters relating to the respective disaster. The List of Disasters identified by the High Powered Committee and their nodal departments are as under:-

Relief Department	Floods and Drainage Management Cyclones Tornadoes and Hurricanes Hailstorm Cloud Burst Thunder and Lightning Snow Avalanches 8 Heat Wave and Cold Wave, Sea Erosion Droughts
Home	Terrorist Attack, Bomb Blast, Nuclear, Chemical, Biological, Air, Road and Rail Accidents, Festival Related Disasters, Law and order Crisis
PWD	Earthquakes, Major Building Collapse
Industries	Chemical and Industrial Disasters
Medical and health	Biological

Telephone Numbers for Disaster Information

State Control Room

0141-1070

District Control Room

District STD Code + 1077

34.11 EARTHQUAKE HAZARD IN RAJASTHAN & PREPAREDNESS

As per the BMPTC Atlas the State of Rajasthan State falls under earthquake zones II, III and IV. Some area of Districts of Jalore, Sirohi, Barmer and Alwar districts fall in zone IV where as many parts of Bikaner, Jaisalmer, Barmer, Jodhpur, Pali, Sirohi, Dungarpur, Alwar, Banswara, fall in zone III.

A table showing zones and likelihood of earthquakes of different intensity and magnitude is shown below.

S.No.	Seismic Zone	Intensity	Magnitude	District
1	IV [High Damage Risk Zone]	VII-VIII	6.0 - 6.9	Some area of Barmer [Chohtan Block], Jalore [Sanchoe Block] Alwar [Tijara Block] and Bharatpur [Block Nagar, Pahari]
2	III [Moderate Damage Risk Zone]	VI-VII	5.0 - 5.9	Parts of Udaipur, Dungarpur, Sirohi, Barmer, Jaisalmer, Bikaner, Jhunjhunu, Parts of Sikar, Jaipur, Dausa, Bharatpur.
3	II [Low damage Risk Zone]	IV-VI	4.0 - 4.0	Ganganagar, Hanumangarh, Churu, Jodhpur, Pali, Rajasamand, Chittorgarh, Jhalawar, Baran, Kota, Bundi, Sawaimadhopur, Karauli, Dholpur, Banswara, some area of Bikaner, Udaipur, Jhunjhunu, Sikar, Jaipur.

Bureau of Indian Standards (BIS) has published the following seismic codes:

IS: 1893 (Part I), 2002, Indian Standard Criteria for Earthquake Resistant Design of Structures (5th Revision)

IS: 4326, 1993, Indian Standard Code of Practice for Earthquake Resistant Design and Construction of Buildings (2nd Revision)

IS: 13827, 1993, Indian Standard Guidelines for Improving Earthquake Resistance of Earthen Buildings

IS: 13828, 1993, Indian Standard Guidelines for Improving Earthquake Resistance of Low strength Masonry Buildings

IS: 13920, 1993, Indian Standard Code of Practice for Ductile Detailing of Reinforced Concrete Structures Subjected to Seismic Forces

IS: 13935, 1993, Indian Standard Guidelines for Repair and Seismic Strengthening of Buildings

Zone	Intensities* of Earthquakes in each Zone
II	This zone is susceptible to earthquakes that can be felt by all and may frighten people enough to run outdoors. Dishes and glassware break, books fall down, heavy furniture gets moved. Few instances of fallen plaster and some damage to buildings may also be observed. (Intensity: I to VI)
III	In Zone III, earthquakes of higher intensity may be felt. Earthquakes that frightens everyone, making it difficult for people to stand. Even people in moving vehicles may feel such quakes. Structures/buildings of good design and construction suffer slight damage, while poorly designed /built ones suffer considerable damages . (Intensity: VII)
IV	This zone is susceptible to strong earthquakes , which create panic all over, moving even heavy furniture. Such earthquakes could cause moderate damage in well designed/built structures/buildings, while poorly built structures suffer great damages . Other effects could be landslides on steep slopes, cracks in ground up to widths of a few centimetres and water in lakes could become turbid. (Intensity: VIII)
V	This is the maximum risk zone in the country and is susceptible to great earthquakes . Quakes that can cause total panic and considerable damage to life and property. Considerable damages happen even in specially designed structures. Great damage in buildings with partial or total collapse. Railway tracks bend and roadways get damaged; ground cracks to widths of several cm, underground pipes break, landslides, rockfalls and mud flows occur, large waves in water. Where intensities exceed XI, total destruction may be caused with changes in landscape that could even change the courses of rivers. (Intensity: IX and above)

34.12 Floods

Though most parts of Rajasthan receive scanty rainfall, the State has a history of floods and Inundations, mostly along the basins of rivers like Luni and Chambal. There are 13 river basins in the state viz.: Shekhawati, Ruparail, Banganga, Gambhiri, Parbati, Sabi ,Banas, Chambal, Mahi, Sabarmati, Luni, West Banas, and Sukli. Out of these, Luni, Banas, and Chambal basins are the largest and are divided into several sub basins. While the Luni river flows through parts of Ajmer, Barmer, Jalore, and Jodhpur, its sub basins of Bhund Hemawas, Sukri, Jawai and Bendi cover parts of Pali, Jalore, and Sirohi. Similarly, the Banas basin falls in Udaipur and Bundi districts and its sub basins of Berach, Morel and Mashri cover parts of Chittorgarh and Jaipur districts. Chambal is the largest basin of the State. Along with its sub basins of Kali Sindh and Parwati, it covers parts of Bundi, Kota, Jhalawar and Baran districts.

These include major parts of the basins and sub basins of River Luni in Barmer, Pali, Sirohi and Jalore; and the basins and sub basins of River Chambal in Baran, Kota and Bundi districts. Also, major portions of Bharatpur districts falling under the basin of River Banganga, and the basins of River Ghaggar in Sriganganagar are prone to floods.

CBRN-Alwar, Jaipur, Kota, Ajmer, Jodhpur, Bikaner, Sirohi, daipur, Bharatpur, Chittorgarh, jhunjhunu and Hanumangarh.

34.13 Methodology for seeking coordination from state government:

When any accident falling within the category of section 113 of Indian railway act 1989, occurs the DRM will draft a message containing the details of accident and address it to the District magistrate and other officials of SGRP, Army command HQ., etc. Such telephonic/fax message sent to the Head Quarter and the state government as mentioned above shall be confirmed by post.

The District authority will act the district planning, coordinating and implementing body for Disaster management and take all measures for the purpose of disaster management in the district in coordinate with the guidelines laid down by the national authority and state authority.

District wise contact details of all three divisions are given in Disaster Management booklet part- II to contact in case of disaster.

34.14 Vulnerability profile:

- 1- Inflammable goods like petrol, LPG carrying trains are playing through all divisions of WCR, in case of any disaster with such train the contact details of various agencies like BPCL, IOC, HPCL are given in Part –II booklet for reference.
- 2- In the Monsoon booklet of NWR, Railway Affecting Tanks (RAT)/Railway Affecting Works (RAW) are given to meet the disaster situation at various vulnerable locations. RAW registers are maintained at each division and vulnerable locations are being checked periodically by the divisions. Monsoon precaution booklet is updated every year by Chief Bridge Engineer NWR/Jaipur and copy of the same is circulated to all concerned including Engineering Control in Division and Headquarters. During monsoon period regular information is exchanged with them water level in RAT, opening of gates of RAT etc.

Monsoon reserves are kept at nominated locations to meet with the unusual occurrence.

Contact details of concern state government officials to be contacted in case of emergency are available with divisional authorities.

3. Copy of NDMA guidelines on management of Earthquakes (April 2007) and guidelines on Management of Flood (Jan 2008) have already been issued to all concern officials of Headquarters and divisions for their information guideline and necessary action

Annexure -A

**Sensitive installation/Infrastructure and Important Bridges over NWR
Ajmer Division**

Vulnerable Installation	Location
Control offices	DRM Office, AJMER
Microwave towers	AII, MJ, ABR, PNU, CNL, MLI, SEU, BGPR, JWB, IQG
Telephone exchanges	GLO/AII, Railway Hospital Ajmer and Workshop, ABR, RPZ/UDZ, MJ, SOD
RRI Tower	AII, ABR, MJ, DOZ, UDZ
Hospitals:	AII, RPZ, ABR,
RDI	AII, MJ, ABR, UDZ
Work Shops	Carriage Workshop/AII, Diesel Loco & Wagon Workshop /AII, Electric W/Shop/AII, Signal W/Workshop/AII
Coaching Depot	AII, MD, UDZ
Diesel Shed	ABR
ART/ARME	AII, MVJ, ABR, SPART/UDZ

Bikaner Division

Vulnerable Installation	Location
Control offices:	DRM Office Bikaner
Microwave towers	BKN, SDF, DKX, SWNI, HSR, HMH, MBY, SOG
TF exchanges:	BKN, RTGH, CUR, SDLP, HSR, BNW, SSA, HMH, SOG, LGH, SGNR
RRI Tower	BKN, HSR, SOG, HMH, SGNR
Hospitals:	BKN, LGH, HSR, HMH
RDI:	BKN, CUR, HMH, LGH
ART/ARME	LGH, SOG, SPART-CUR
Work Shop	LGH/BKN
Coaching Depot	BKN, LGH, BNW and SGNR

Jaipur Division

Vulnerable Installation	Location
Control offices	DRM Office JAIPUR
Microwave towers	RE, SRAS, FL, JP, BOBAS, FL, CKS, DPZ
Telephone exchange:	NWR/HQ, DRM/JP, BKI, AWR, RE, FL, SIKR, Officers Colony Jagatpura, GTJT
RRI Tower	JP, RE, FL & BKI
Hospitals	Central Hospital-JP, Dispensary-BKI, AWR, RE, FL, RINGAS, SIKAR
RDI	JP, FL, RE
ART/ARME	JP, SPART/RE
Coaching Depot	JP
Wagon Depot	FL
ISS Building	JP

Jodhpur Division

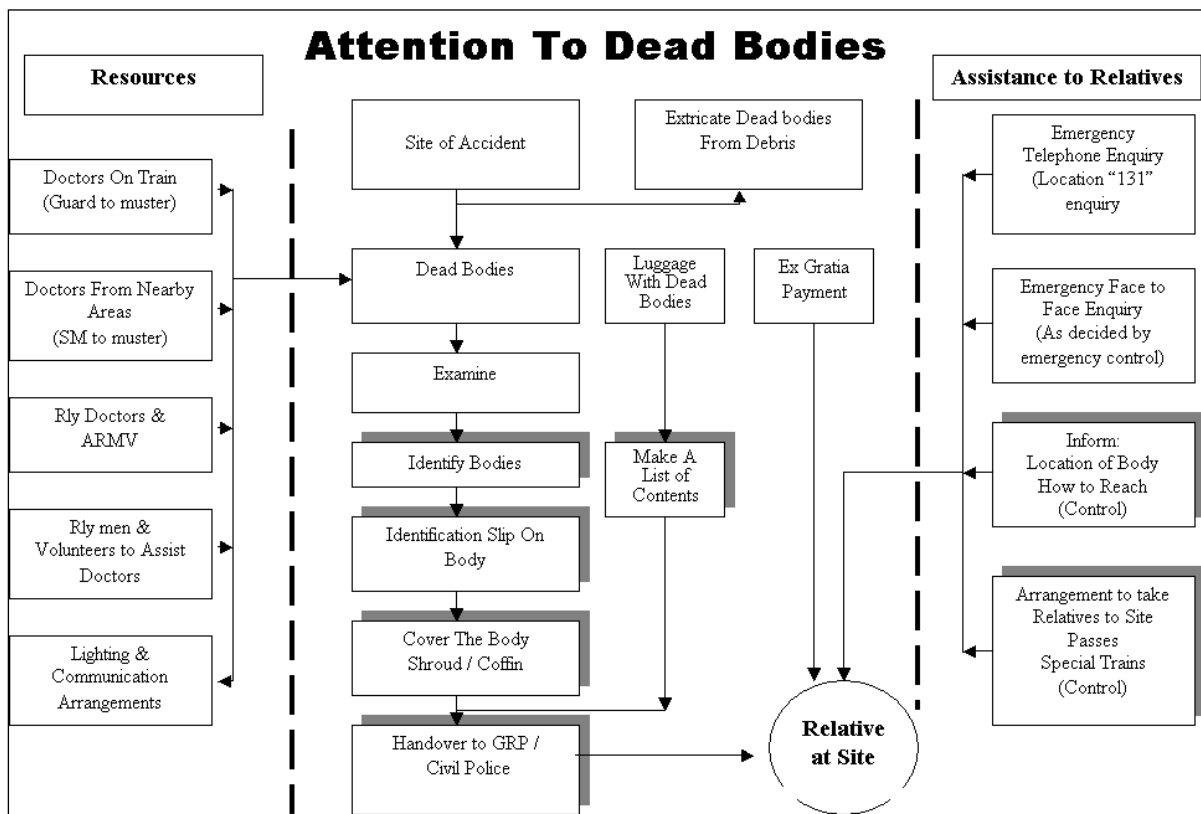
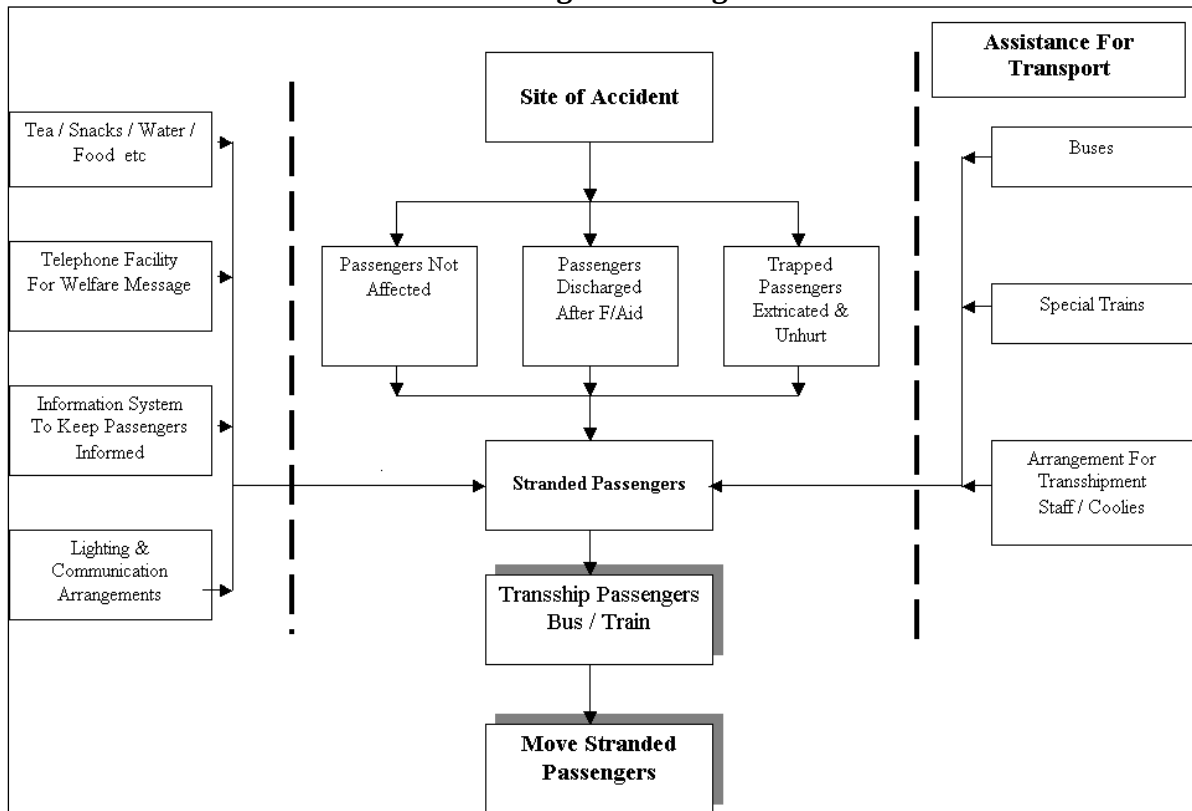
Vulnerable Installation	Location
Control offices:	DRM Office JODHPUR
Microwave towers	----
TF exchanges:	JU DRM Office/Station, JU/Store Depot BGKT, JSM, BME, SMR, MTD, MBF, DNA
RRI Tower	JU under commencing
Hospitals:	Central Hospital-JU, Dispensary-JU, BGKT, SMR, BME, MTD, DNA, PLCJ & JU/WS
RDI:	JU, BGKT, SMR & PLCJ
ART/ARME	JU, MTD, & BME, JSM (under commissioning)
Work Shop	JU
Coaching Depot	JU, BME, MTD
Diesel Shed	BGKT
DEMU Shed/Rail Bus Depot	MTD
Electrical	Power House-JU Station, JU-Work Shop, JHAPOK/JU, JU Washing Line, DSL Shed/BGKT, BME, MTD, DNA, SMR, JSM, PLCJ, LN.

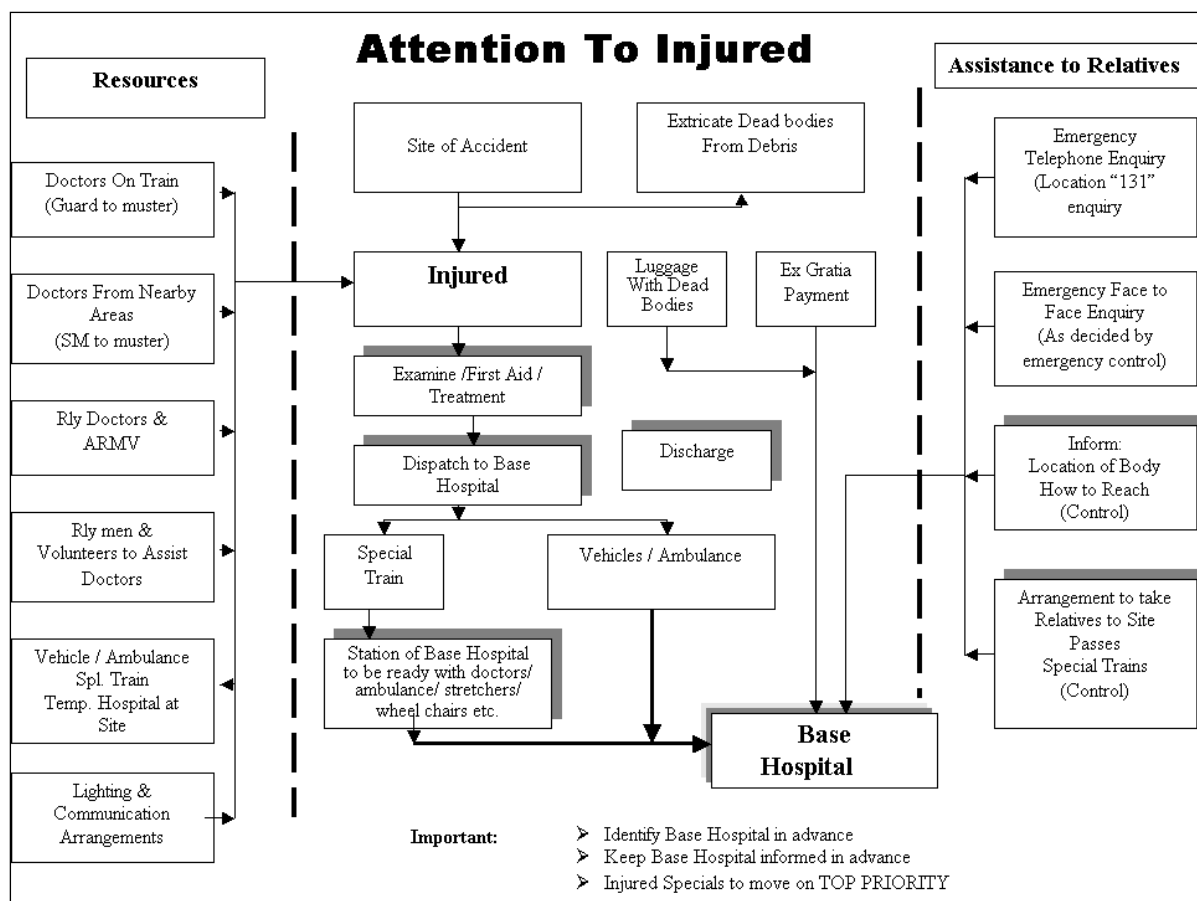
IMPORTANT BRIDGES OVER NWR

S. No.	Section	Between Stations	Location (Km)	Bridge No.	Gauge	Year of Construction	Type of Girders	No and Size of Span
A.	Ajmer Division							
i)	Madar- Palanpur Section (BG)							
1	MD-PNU	BAR-HP	377/0-3	509	BG	1879	Steel Girder	17.22X2+17.07X1
2	MD-PNU	BQN-SOD	411/1-5	563	BG	1880	ARCH	32X7.62
3	MD-PNU	MJ-AUWA	440/5-8	594	BG	1881	ARCH	23X7.62
4	MD-PNU	BGG-SOS	461/2-5	609	BG	1881	ARCH	30X7.01
5	MD-PNU	SOS-JAL	467/9-468/0	617	BG	1881	ARCH	15X7.62
6	MD-PNU	RN-KZQ	485/1-3	635	BG	1881	ARCH	26X7.01
7	MD-PNU	KZQ-FA	498/5-6	649	BG	1881	ARCH	27X7.01
8	MD-PNU	JWB-MOI	519/0-2	676	BG	1881	Steel Girder	10X17.22
9	MD-PNU	SOH-BNS	564/8-9	750	BG	1881	RIVT PG	10X12.20
10	MD-PNU	MOX-ABR	597/0-2	792	BG	1881	RIVT PG	9X12.20
11	MD-PNU	ABR-MAA	606/9-607/1	803	BG	1881	RIVT PG	7X18.30
12	MD-PNU	JTY-CTT	637/9-638/1	845	BG	1908	Steel Girder	6X30.50
ii)	Ajmer- Chittorgarh Section (BG)							
13	AII-DET	GBP-RPI	66/4-7	94	BG	2007	PSC Box girder	8X30.50
14	AII-DET	MDL-BHL	122/5-7	140	BG	2007	PSC Box girder	6X30.50
15	AII-DET	SNYN-GGR	147/0-4	178	BG	2008	PSC Box girder	13X30.50
iii)	Marwar Jn- Mavli Jn. Section (MG)							
16	MJ-MVJ	GGO-KBK	33/12-13	108	MG	1936	RIVT PG	6X12.19+3X9.14
17	MJ-MVJ	GGO-KBK	34/7-9	102	MG	1936	RIVT PG	6X12.19+2X6.10+2X7.05
18	MJ-MVJ	KRKM-CBG	81/3-8	140	MG	1932	Steel Girder	9X18.29
19	MJ-MVJ	KDL-BJN	125/6-16	58	MG	1930	Steel Girder	46X6.10+7X18.29
iv)	Udaipur- Himmatnagar Section (MG)							
20	UDZ - HMT	KRCD-ZW	130/2-5	251	MG	1965	PSC Girder	4X24.38
21	UDZ - HMT	KRCD-ZW	143/10-11	320	MG	1965	PSC Girder	4X24.38+2X18.28
22	UDZ - HMT	ZW-JYM	160/12-14	382	MG	1965	RIVT PG	5X17.53
23	UDZ - HMT	JYM-RDD	178/12-15	433	MG	1965	RIVT PG	7X17.53
24	UDZ - HMT	RDD-KTOA	214/10-14	558	MG	1965	Steel Girder	12X17.53
25	UDZ - HMT	JO-BHWA	257/17-258/1	695	MG	1965	Steel Girder	5X17.53

26	UDZ - HMT	LSD-SJS	265/14-266/1	728	MG	1965	RIVT PG	5X17.53
27	UDZ - HMT	SJS-RGQ	284/3-5	786	MG	1965	RIVT PG	7X17.53
B.	Bikaner Division							
	NIL							
C.	Jaipur Division							
28	RE-HSI	Bawal-Ajerka	25/8-9 to 26/5-6	23	BG	1874	PSC SLAB	76X6.71+12X7.62
						2012		
29	SWM-JP	ISA-SURL	33/8-34/4	23	BG	1907	Steel Girder	30X18.30
D.	Jodhpur Division							
30	FL-DNA	GA-GVMR	24/2-5	22	BG	1978	Steel Girder	10X24.40
31	FL-DNA	GA-GVMR	33/8-9	32	BG	1979	GIRDER	7X12.20
32	LN-MJ	LN-RT	657/7-658/0	85	BG	1884	PSC slab	17X12.20
33	LN-MJ	RT-PRDH	671/0-3	92	BG	1884	PSC Girder	17X12.20
34	SMR-BLDI	SMR-BNSN	5/7-6/2	3	BG	1929	Steel Girder	10X12.19+17X11.58+11X11.19
35	SMR-BLDI	BK-MON	91/6-7	54	BG	1930	Steel Girder	26X12.20
36	SMR-BLDI	LDM-MBNL	113/1-2	72	BG	1929	PSC Girder	23X12.12
37	PPR-BARA	BCW-BARA	36/7-8	26-A	BG	2008	PSC SLAB	17X9.16
38	PPR-BARA	BCW-BARA	37/2-3	26	BG	2008	PSC SLAB	30X9.15

Site Management Diagrams





Note –

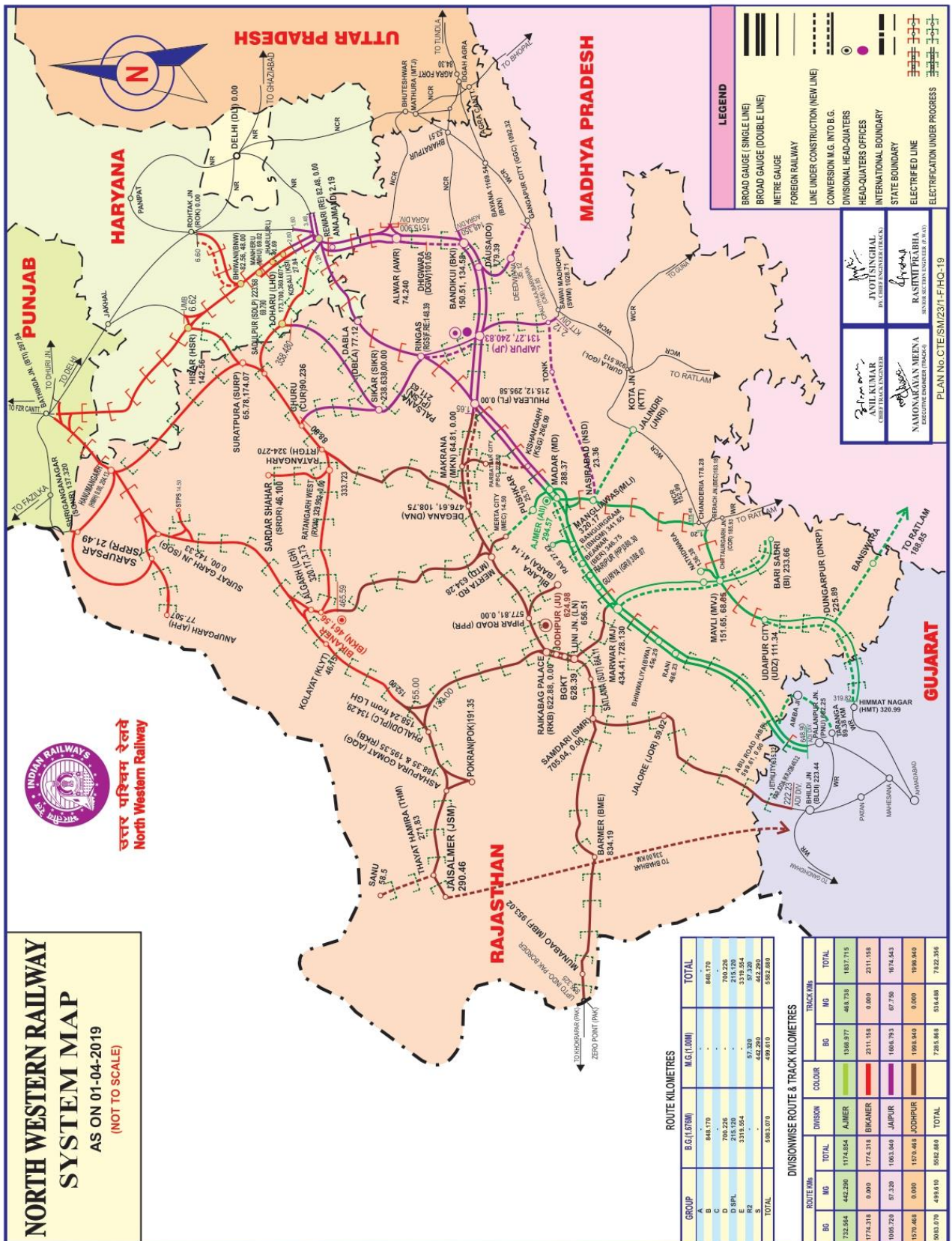
1. This is only a reference book/guide. Although great care has been taken to ensure accuracy, any error or omission may please be brought to the notice of PCSO/NWR/JP.
2. Any information regarding railways as well as civil departments may change from time to time, viz., telephone/ Mobile nos. list of Private Medical Practitioners etc.
3. In case of any doubt or for details, concerned manuals, rule books may be referred.
4. This compendium of instructions has been prepared for dealing with disaster and not normal train accidents

ABBREVIATIONS USED

AC	Air Condition
ACM	Assistant Commercial Manager
ADG	Assistant Director General
ADMO	Assistant Divisional Medical Officer
ADRM	Additional Divisional Railway Manager
AEE	Assistant Electrical Engineer
AEN	Assistant Engineer
AGM	Additional General Manager
AIR	All India Radio
ALP	Assistant Loco Pilot
AME	Assistant Mechanical Engineer
AMM	Assistant Material Manager
AOM	Assistant Operating Manager
APO	Assistant Personnel Officer.
ARME	Accident Relief Medical Equipment
ARMV	Accident Relief Medical Van
ART	Accident Relief Train
ASM	Assistant Station Master
ASTE	Asstant Signal & Telecommunication Engineer
BIS	Bureau of Indian Standard.
BPCL	Bharat Petroleum Company Limited
BSNL	Bharat Sanchar Nigam Limited
C&W	Carriage and Wagon
CAC	Combined Assistance Center
CAO	Chief Administrative Officer
CBE	Chief Bridge Engineer
CBRI	Central Building Research Institute
CCM	Chief Commercial Manager
CDMO	Chief District Medical Officer
PCE	Principal Chief Engineer
PCEE	Principal Chief Electrical Engineer
CFTM	Chief Freight Transportation Manager
CHC	Chief Controller.
CISF	Central Industrial Security Force
PCMD	Principal Chief Medical Director
PCME	Principal Chief Mechanical Engineer
CMPE	Chief Motive Power Engineer
CMS	Chief Medical Superintendent
CNL	Control.
CO.	Co-ordination.
PCOM	Principal Chief Operation Manager
COS	Controller of Stores
CPO	Chief Personnel Officer
CPR	Cardio Pulmonary Resuscitation

CPRO	Chief Public Relation Officer
CPTM	Chief Passenger Transportation Manager
CRB	Chairman Railway Baord
CRRI	Central Road Research Institute.
CRS	Commissioner of Railway Safety
CRSE	Chief Rolling Stock engineer
PCSC	Principal Chief Security Commissioner
CSE	Chief Signal Engineer
PCSO	Principal Chief Safety Officer
PCSTE	Principal Chief Signal and Telecommunication Engineer
CTE	Chief Track Engineer
CWC	Cyclone Warning Center Central Water Commission
DC	District Commissioner
DCP	Dry Chemical Powder
DEN	Divisional Engineer
DG	Diesel Generator
DM	Disaster Management or District Magistrate
DMA	Disaster Management Authority
DME	Divisional Mechanical Engineer
DMO	Divisional Medical Officer
DMT	Disaster Management Team
DMU	Diesel Multiple Unit
DOM	Divisional Operating Manager
DOT	Department of Telephone.
DR	Disaster Response
DRM	Divisional Railway Manager
DSTE	Divisional Signal & Telecommunication Engineer
EC	Emergency Control
EMR	Emergency Medical Response
EMU	Electric Multiple Unit
FA	First Aid
FA&CAO	Finance Advisor and Chief account officer
FC	Finance Commission
FIR	First Information Report
FOB	Foot Over Bridge
FOIS	Freight Operation Information System
FR	First Response
FT	Field Telephone
GIS	Geographical Information System
GM	General Manager
GRP	Government Railway Police
GSI	Geological Survey of India.
HFL	Highest Flood Level
HLC	High Level Committee
HM	Home Minister
HOD	Head Of the Department
HOR	High Official Requisition

HRD	Hydraulic Rescue Device
HRE	Hydraulic Re-railing Equipment
HS	Home Secretary/Hand Signal
HSD	High Speed Diesel
IA	Indian Airlines.
I-AC	First class Air Conditioned coach.
IAF	Indian Air Force.
IAT	Instant Action Ream
ICF	Integral Coach Factory
IG	Inspector General
NGO	Non Government Organization
IIT	Indian Institute of Technology
IMD	Indian Meteorological Department
IOC	Indian Oil Corporation
IRITM	Indian Railway Institute of Transport Management
ISD	International Subscriber Dialing.
ITWC	Indian Tsunami Warning System
JAG	Junior Administrative Grade
LC	Level Crossing.
LI	Loco Inspector
LP	Loco Pilot
MM	Material Manager/Member Mechanical.
MOSR	Ministry of State for Railway
MoU	Memorandum of Understanding
NDRF	National Disaster Response Force.
NGO	Non-Government Organization
OHE	Over Head Equipment
OIC	Officer In-Charge
PA	Public Address
PCE	Principal Chief Engineer
PCO	Public Call Office
POL	Petroleum and Oil
POMKA	Portable Medical Kit for Accident
PR	Public Relation
PRO	Public Relation Officer
QRT	Quick Response Team
RCT	Railway Compensation Tribunal
RMC	Regional Meteorological Center
RMS	Railway Mail Service
RPF	Railway Protection Force
RRI	Route Relay Instrument.
RVS	Rapid Vision Screen.
S&T	Signal & Telecommunication
SDGM	Senior Deputy General Manager
SIS	Senior Inspector of Signal
SJAB	St.John Ambulance
SM	Station Master/Station Manager
SP	Superintendent of Police
SPART	Self Propelled Accidnt Relief Train
UCC	Unified Command Center.



As per the BMPTC Atlas, various parts of the State of Rajasthan fall under earthquake zones II, III, and IV.

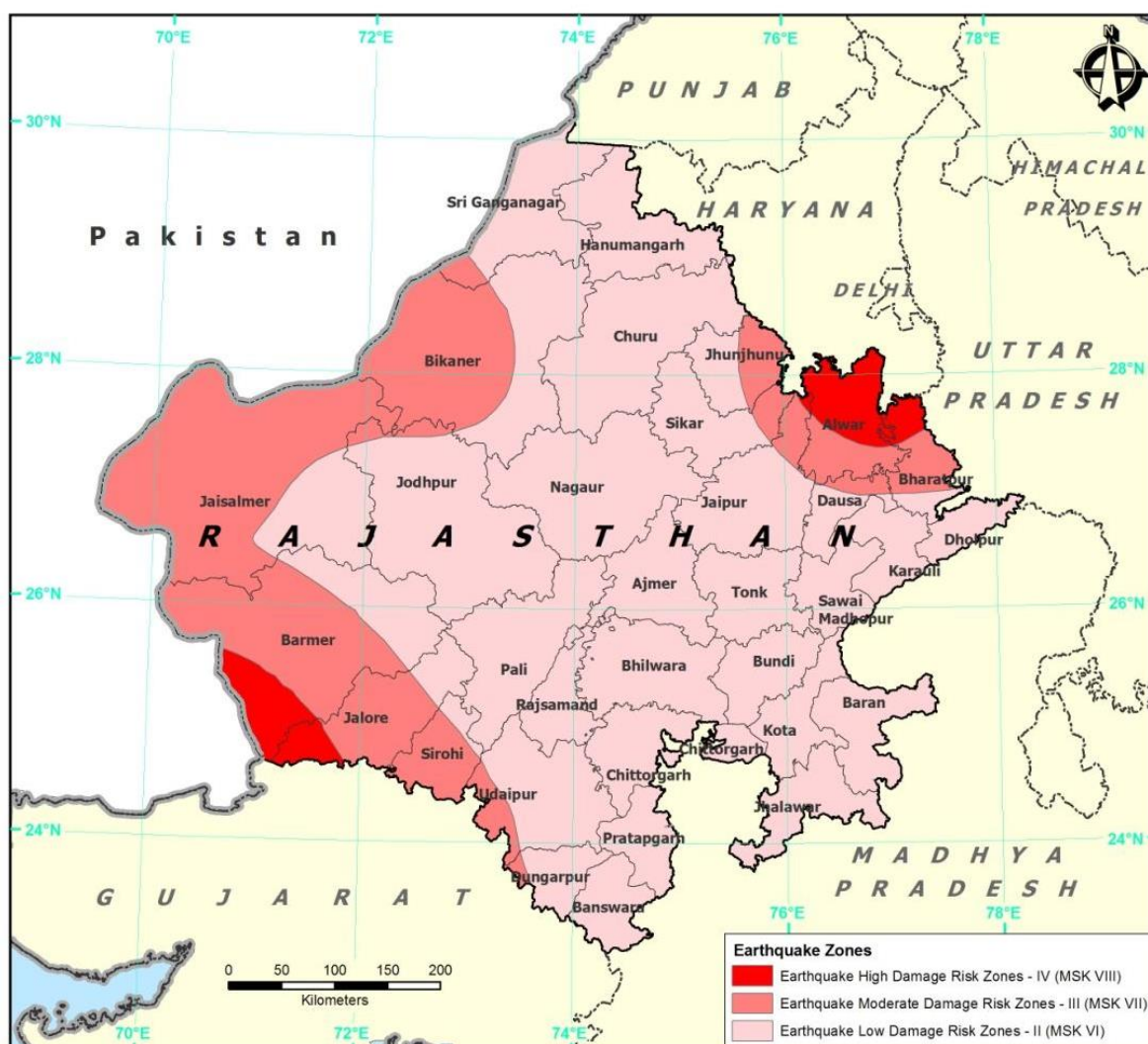


Figure 3 -1 : Earthquake Zones ; source IS 1893 : 2001



Figure 3 - 2 : Flood Prone Area Map; source Flood Manual, Rajasthan (Disaster Management and Relief Department)



Important Letters on Disaster Management

GOVERNMENT OF INDIA (BHARAT SARKAR)

MINISTRY OF RAILWAYS (RAIL MANTRALAYA) (RAILWAY BOARD)

(No.2002/Safety-1/6/6 dated.13-06-2004)

General Managers, All Indian Railways

Sub.: Empowering Zonal Railways to requisition helicopter/aeroplane at the time of severe Accident.

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

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

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

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

Normally, in case of an accident only one helicopter should be requisitioned by a Zonal Railway, except when there is a serious passenger train accident involving several casualties when it is essential for both the General Manager and the Divisional Railway Manager to reach the site at once to satisfy the public and the Press. However, for dispatching the rescue teams to the site of the accident, separate helicopter/aeroplane may be requisitioned, if so needed.

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

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

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

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

(Amitabh)
Director, Safety-III
Railway Board

2. Requisitioning of Indian Air Force Aircraft/Helicopter:

Railway Board letter No. 2002/Safety-I/6

Dated. 5-12-2006

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

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

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

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

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

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

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

AMITABH
Director Safety/Railway Board

Sub: Assistance of NDMA/NDRF to handle Railway related Disasters
0020

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

The issues discussed and decision taken during the meeting are as under:

- (i) Commandant of NDRF located closed to Divisional Headquarters may be called along with a few of his personnel to see ART/AMRE equipments inside them.
- (ii) Features of different type of coaches (AC, Non-AC), Freight rolling stocks, Features of new designed coaches/Wagons, specially BTPNs and TPs used to carry inflammable products and dangerous Chemicals.
- (iii) Regular Coordination meeting may be held between NDRF Battalion Commandants and the CSO's and the representatives of the Division (DRM's or in his absence the ADRM/Sr. DSO). Regular coordination meeting be held once every six months.
- (iv) The present system of requisition of NDRF by concerned DRM/CSO should be continue. However, a written requisition from the railways authorities for NDMA/NDRF should be followed for their records.

Railway should initiate action accordingly.

(Kamlesh Gupta)
Adviser (Safety)

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

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

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

“Railway Disaster is a serious train accident or an untoward event of grave nature, either on the railway premises or arising out of railway activity in that area, due to nature or man-made causes, that may lead to loss of many lives and/or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating large scale help from other Government/Non-government and private Organizations. ”Board have also approved the proposal to nominate either GMs, AGMs or CSOs for declaring and untoward incident as Railway Disaster.

The preparation of the Disaster management plans on the zonal railways in co-ordination with the different departments or the railway, other Central/State Govt. agencies NGOs, Private agencies, etc. has to be done by the Safety department on the zonal Railway.

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

(Amitabh)

Director (Safety) Railway Board

5. No. 2002/Sec. (Cr.)/45/47
11.12.2002

New Delhi, Dated

**The Home Secretary, Govt. of India,
Ministry of Home Affairs, North Block,
New Delhi.**

Sub: Expeditionary clearance by the state police in a case of Railway accident.

Sir,

Your kind attention is invited to the subject mentioned above. In a case of rail accident involving loss of human lives or injuries to the passengers, railway administration does everything possible to render necessary assistance and succor to them. Efforts are made to rush rescue and medical apparatus to the site of accident without losing any time as the first few hours are very crucial.

But it has been noticed that rescue operations are hampered due to delayed, and at times, reluctant clearance by the State Police. This was evident in the recent Rajdhani Express in Bihar when it took them unduly long time to complete the formalities.

It may be pertinent to mention that there are two different tasks to be tackled on war footing, namely (a) Rescue and (b) Restoration

(a) As regards rescue operations, they cannot obviously wait till legal formalities are completed as they involved saving human lives. But it appears that there is some confusion regarding the urgency of undertaking rescue operations. I would request you to reiterate instructions to the state Govt. on this point so that there is no delay in starting rescue operation. Needless to handling the situation. Besides providing medical aid, other facilities, which may be necessitated by circumstances at the site of the accident, may also be extended by them expeditiously.

(b) As regards restoration of railway traffic, rule-provide that this can be taken up only after the clearance by the local police or GRP. In this regard it would be relevant to point out that a large number of passengers are unduly inconvenienced by disruption of rail traffic. It would, therefore, be in the best interest of the passengers to restore the rail traffic as fast as possible. But, it clearance, consequently delaying the restoration operations.

I would, therefore, request you to issue necessary instructions to the State Govts. to expedite clearance certificate in the event of a rail accident, so that normal traffic can be restored without avoidable delay.

(Dr. A.K. Pandey)

Director General/RPF/Railway Board

The General Managers

Sub: Clearance by State Police in case of railway accidents due to suspected sabotage.

Ref: Ministry of Home Affairs letter no. VI-24022/II2002-PM-1dt. 24.12.2002

addressed to Home Secretaries of all States (Copy enclosed)

1. The issue of expeditious clearance by the State Policy in case of Railway accidents, where sabotage is suspected, has been engaging Ministry of Railways (Railway Board)'s attention for a long time. It is noticed that sometimes rescue operations are hampered due to delayed and reluctant clearance by 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; and b) Restoration of Rail Traffic. It is clarified that in case of railway accidents, permission of the State Government or clearance of the police is not required for launching rescue operations for the purpose of saving human lives which inter alia may also involve handling/shifting the rolling stock (locomotives, wagons and coaches) for extricating the trapped passengers. However, police clearance is required for restoration works at the site of accident, if sabotage is suspected.
3. To avoid any delay in launching the rescue operations 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 letter 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 rail accident, when sabotage is suspected.
4. The contents of this letter may be widely published among the railway officer/staff and displayed in all ARTs/ARMEs so that a general awareness created amongst all those engaged in rescue activities.
5. This letter supersedes the Railway Board's letter of even number dated 07.02.2003.

(ATUL PATHAK)

Director/Crime Prevention
Railway

Board

7. No. VI-24022/II2002-PM-1dt. 24.12.2002

GOVERNMENT OF INDIA
Ministry of Home Affairs

New Delhi, Dated 24.12.2012

To
Home Secretaries
Chief Safety Officer,
East coast Railway

Sir,

Sir

I am directed to enclose herewith a copy of Director General/RPF/Railway Board letter No. 2002/Sec. (Cr.)/45/4 New Delhi, Dated 11.12.2002 regarding initiation of action for expeditious clearance by the State Police in case of railway accident involving loss of human lives or injuries to the passengers etc.

It is requested that suitable instructions may be issued to the concerned authorities for taking prompt action and to expeditious clearance certificates in the event of a rail accident, so that normal traffic can be restored without avoidable delay.

Sd/-
Yours Faithfully,

(Jojneswar Sharma)
Director/PMR

Copy to all DGP of all States.

Chief Safety Officer,
East coast Railway

Sub: Annual review and updation of Disaster Management Plan.

Ref: Your office letter no. ECOR/SFY/DM/527 dated 16.06.2015

- 1- East Cost Railway has referred to Railway Board regarding the need for printing DM plan every year in light of the fact that not many changes are carried out in the instruction/procedure indicated therein.
- 2- As per Disaster management Act, 2005 every Ministry or the department of government of India has to review and update annually their DM plan. The same instructions were envisaged in the DM plan of Ministry of Railways. Further the Act does not stipulate that the plan should be published every year, It only indicates that the plan needs to be reviewed and updated annually.
- 3- Board has reviewed these instructions and decided that:
 - a. The DM Plan of the Zone/Division should be in two parts.
 - b. The first part should contain the general information, duty list, role and responsibilities of various departments, guidelines issued by NDMA and Railway Board etc.
 - c. The second contains information about the important telephone numbers of respective Zone/Division, contact details of para military forces, state administration, hospitals, bus depots, fire services, NGOs, earthmoving equipments etc.
 - d. The first part of DM plan should be reviewed and updated as and when fresh instructions were received from NDMA or railway board or any other concerned organisation. This part need not be published /printed every year.
 - e. Second part which generally consists of the contact details should be updated annually and the same should be circulated to all concerned. Corrections /additions /deletions to the first part may be incorporated in this as a correction slip.
 - f. Zonal Railways may decide to publish/print first part whenever the necessity is felt.

The above instructions may please be followed during future review/updation of disaster management plan.

(P.Srinivas)

Director(safety-
III)

Railway Board

Copy to: CSO all Indian Railway- for information and necessary action please.

9. No.2002/Safety(A&R)/19/29

New Delhi, dated 21.08.2009.

Sub:-Authority for preparation of Accident Manual and Disaster Management plan.

Ref:-Board's letters of even number dated 25.04.2008 and 14.08.2008 and 31.12.2008.

Railways were advised earlier vide letters dated 25.04.2008 and 14.08.2008 to club Accident Manual and Disaster Management plan together as one document. However, vide letter dated 31.12.2008, Board had advised the Railways that Accident Manual and disaster management plan shall be two separate documents, to be prepared by COMs and CSOs of concerned Railways respectively.

The matter has been further examined in the Board. Board (MT) has given directives that the COMs of all Zonal Railways shall prepare and update their respective Accident Manual. The CSOs shall, however, prepare the disaster Management plan. As a small portion of the disaster Management plan pertaining to serious Train Accident (when a Train Accident is classified also as a disaster) is common, This common portion is to be incorporated in the Accident Manual also. The CSOs shall provide a write-up to the COMs on additional measures to be taken for handling train Accident, which gets declared as a 'disaster'.

The write-up should contain measures to be taken to tackle a disaster (specially a serious Train Accident) and have the telephone numbers and names of the persons to be connected in these cases. The COMs will then incorporate this write-up in their Accident Manual.

It has also been observed by the Board that the Accident Manuals of some of the Zonal Railway have been printed more than 15 years ago and have not been revised subsequently. It has been decided that that Accident Manual should be revised and updated periodically. A fresh printing through a new addition must be done at least once in 15 years.

Necessary action may be taken accordingly.

(J.S.Bindra)
Joint Director/Safety
Railway Board

10. 2003/Safety(DM)/6/4
03.02.2004

dated

Sub:-Coordination with defence Service at the time of disaster

Headquarter Integrated Defence Staff (Operations Branch), Ministry of defence has been tasked to co-ordinate responses to various disaster at the National and international levels. While seeking assistance, DACIDS (OP Lgs) has been nominated as the first contact point. Also any response sought from services on matters relating to Disaster Management be routed through this officer only. A copy of concerned letter No.IDS/Ops/OP Lgs/31004 dated 19.01.04. from Real Admiral, ACIDS (Jt Ops) is enclosed.

This information may be disseminated to divisions as well.

(Amitabh)
Director(Safety)
Railway Board

11. No IDS/Ops/Op Lgs/31004

HEADQUARTER INTEGRATED DEFENCE STAFF
(OPERATIONS BRANCH) MINISTRY OF DEFENCE.

- 1- HQ IDS has been tasked to coordinate responses to various disasters at the National and International levels. The responses has been prompt and effective when the nodal officer at HQ IDS was approached for assistance by any outside agencies in any crisis situation. To avoid delays in seeking assistance by any agency, it is requested that the contact point below is to be contacted first, and not any service HQ.

DACIDS(Op Lgs) -----23017897(o)
----- 25686071(R)
----- 23017899(Fax)
----- 9810856633

- 2- You are requested to ensure that any response being sought from services on matters relating to disaster management to route through the above mentioned officer.

(R Chopra)
Rear Admiral
ACIDS(Jt Ops)

Copy to:

JS, MHA, JS (Coord) MEA-with a request to disseminate this information to all joint secretaries of ministry.

JS(Safety & Security), Ministry of Civil Aviation Safdarganj Airport New Delhi-03

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)**

**12. 2-5(1) B/2016/1166
28.12.2016**

Dated

Sub: Preservation of evidence during accident.

The Railway should preserve various clues and evidences after the accident before restoration of the site. In this regards the following must be ensured.

- 1- Videography of entire stretch of accident including the rail fittings, upto one km. Before the disturbed site for each rail separately.
- 2- Videography of the truck separately for the each rail.
- 3- Videography of each rolling stock so as to understand the position of rolling stock after the accident vis-a-vis track and the other adjoining rolling stock.
- 4- Videography of item/components of rolling stock/track before the point of drop and after the point of drop, duly indication their location.
- 5- Videography of broken components with close-ups.
- 6- Videography of all clues/evidences, track and rolling stock.
- 7- Operating panel position.
- 8- Data logger Reports.
- 9- Action reported by loco pilot duly cross- verified by speedometer chart and brake application details.
- 10- The officers /supervisors preparing joint Note at the accident site should be told to specially cover all the parameters as per accident manual including the distances of various components, fitting laying at different locations. This will include the displacement of wheel of the rolling stock from the track.

You are requested to please ensure the above items are compiled under the supervision of the shifting/lifting of any rolling stock for providing the relief of passengers is done, the same should be recorded in the joint Note duly mentioning the reasons.

(Sushil Chandra)
Commissioner of Railway Safety.
Western circle Mumbai

13.

**Government of Rajasthan
Directorate of Health Services Rajasthan**

To

- 1- All regional joint Directors,
Health Services Rajasthan
- 2- All Chief Medical & Health Officers,
Rajasthan
- 3- All civil surgeons
District Hospital, Rajasthan
- 4- All Superintendents,
Civil Hospitals, Rajasthan

Sub:-Assistance during passenger train railway accident at site.

You are hereby directed to take the following measures in case of passenger train railway accident:-

1. On receiving the information of train accident, a team of Doctors should be immediately sent to the site to provide medical relief and rescue assistance at the site.
2. As many as possible ambulance should be sent to accident site and needy victims shifted either to District Hospitals/Civil Hospitals or nearby equipped Nursing Home/Hospitals for the purpose of life and limb saving procedure.
3. As many beds as possible should be provided in District Hospitals/Civil Hospitals under your control to mitigate the suffering humanity.
4. All life saving drugs including compatible blood transfusion should be provide.
5. Assistance in performing post mortem. if authorized to do so.
6. Storage of as many dead bodies as possible in mortuary.
7. For the services rendered, suitable monetary compensation at prevailing existing rates will be done.

Please arrange to disseminate the above direction to all the staff working under control to come forward during railway accident and render all assistance without waiting for any further requisition or orders.

Director
Medical Services
Directorate of Health Services
Rajasthan, Jaipur

14.

राजस्थान सरकार

निदेशालय चिकित्सा स्वास्थ्य एवं परिवार कल्याण सेवाएँ, राजस्थान जयपुर

क्रमांक सी० डी० / एपिड / 03/ 1028

दिनांक 18.12.03

समस्त संयुक्त निदेशक, चिकित्सा एवं स्वा० सेवाएँ राज०

समस्त अधीक्षक, सामान्य चिकित्सालय-----

समस्त मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी, राजस्थान

समस्त प्रमुख चिकित्सा अधिकारी जिला अस्पताल

जिला मुख्यालय

विषय- यात्री गाडी (रेल) दुर्घटना के दौरान जनहानि पर आवश्यक चिकित्सा सहायता उपलब्ध कराने बावत ।

आपके क्षेत्र में यदि कोई (रेल) यात्री गाडी की दुर्घटना होती है तो उसमें घायलों/ होने वाली जनहानि पर आवश्यक चिकित्सा सुविधा निम्न प्रकार से उपलब्ध कराने की तत्काल व्यवस्था करायेंगे-

1. संबंधित क्षेत्र के रेलवे अधिकारियों द्वारा किसी भी यात्री गाडी के दुर्घटना होने की सूचना प्राप्त होने पर चिकित्सा अधिकारियों के दल को मय पैरामेडिकल सहायता के साथ तत्काल दुर्घटना स्थल के लिए भिजवाया जाए ताकि चिकित्सा राहत कार्य तुरन्त प्रारम्भ हो सके ।
2. यात्री गाडी के दुर्घटना ग्रस्त स्थल से घायल यात्रियों को निकटतम अस्पतालों में चिकित्सा सहायता उपलब्ध कराने हेतु स्थानान्तरित करने के लिए अपने यहाँ पर कार्यरत एम्बुलेंस का उपयोग किया जावे।
3. दुर्घटना में घायल यात्रियों को सभी जीवन रक्षक औषधियों जिसमें रक्त व आक्सीजन भी शामिल है। आवश्यकतानुसार उपलब्ध करायी जाए।
4. यात्री गाडी के दुर्घटना ग्रस्त होने की सूचना प्राप्त होते ही जहाँ तक संभव हो अपने अधीन चिकित्सा संस्थानों में अधिक से अधिक वेड्स घायल यात्रियों के उपचार हेतु रिक्त रखे जाने की व्यवस्था सुनिश्चित की जावे।
5. यात्री गाडी के दुर्घटना ग्रस्त होने पर उससे होने वाली यात्रियों की संभावित मृत्यु पर अस्पताल से मृतको के पोस्टमार्टम की व्यवस्था के साथ ही डेड वाडी को सुरक्षित रखवाए जाने की व्यवस्था भी सुनिश्चित करवाई जाये।

उपर्युक्त दिशा निर्देश आप अपने अधीनस्थ सभी चिकित्सा संस्थानों में कार्यरत चिकित्सा अधिकारियों को भी जारी करते हुए अवगत कराने की व्यवस्था करने का श्रम करे कि भविष्य में उनके क्षेत्र में किसी भी यात्री गाडी के दुर्घटना ग्रस्त होने की सूचना प्राप्त होते ही अविलम्ब बिना कोई इंतजा किए घटनास्थल पर पहुच कर चिकित्सा राहत कार्य प्रारम्भ करावे।

निदेशक (जन स्वा.)
चिकित्सा एवं स्वा. सेवायें
राजस्थान, जयपुर

क्रमांक सं. सी.डी. एपिड/03/ 1028

दिनांक 18.12.03

प्रतिलिपि:-

1. शासन सचिव, चिकित्सा एवं स्वा. विभाग, राजस्थान, जयपुर।
2. समस्त जिला कलेक्टर राजस्थान।
3. मुख्य चिकित्सा निदेशक उ.प.रेलवे जयपुर ।
4. मुख्य चिकित्सा निदेशक उ.प.रेलवे जबलपुर।

15. No.2002/Safety (DM/Misc.
30.01.2017.

New Delhi, dated

CSO/All Indian Railways and KRCL

Sub: Check list for the Divisional Safety Officers Subsequent to an Accident

S.No.	Items
1	Immediately rush to the accident site by the first available means along with Safety counselors.
2	Speak to Guard/Loco pilot to understand the sequence of events and assess the extent of damages' the exact number of vehicles affected with their stenciled numbers. Also Guard may be asked to take pictures with their mobiles and sent them through whatsapp.
3	Arrange to rush the relief teams available with the Railways.
4	Check whether Station masters on adjacent stations, Control and Medical staff have requisitioned for local medical help and ambulances.
5	Seek assistance of NDRF and other Government/ Non-government organizations if required.
6	Assess the site conditions and if needed order for additional rescue teams.
7	Establish a Unified Command Centre (UCC) and arrange to man it by a safety counselor.
8	Arrange to establish telephonic communication at the site.
9	Preserve all clues and evidences regarding probable cause of accident.
10	Arrange to record joint observations/ measurements at the site by the senior subordinates.
11	Should check for any speed restriction at the location and any abnormality reported by previous train's crew.
12	Arrange to maintain log of events at the site and relay to divisional emergency cell at regular intervals.
13	Relay Prima Facie cause in consultation with officer in-charge within a reasonable time.
14	Ensure that in UCC details of passengers admitted is maintained Hospital wise.
15	Relay probable restoration time in consultation with officer in-charge within a reasonable time.
16	Arrange to create Accident ID in SIMS and update all the relevant fields at regular intervals.
17	Arrange for live feed through VSAT, collect arial pictures of the accident and upload the photos/video in SIMS.

Chief Safety Officer shall ensure the following

S. No.	Item
1	Be in constant touch with divisional officers and Railway Board emergency cell. Shall ensure that above actions are carried out by divisional safety officers.
2	To seek for additional assistance from adjacent Railways and other Government/ Non-Government agencies if needed.
3	Ensure that HQs emergency cell is manned by a Dy.CSO.
4	Ensure that all the details of the accident are conveyed to RB emergency cell hourly.
5	Ensure that all the relevant details are filled up in the SIMS

- 16. Sub:- Mock drills for ART/ ARMV and Full Scale Disaster management exercises.**
Ref: Railway Board) No. 2010/Safety (DM)/6/23 New Delhi, Dated 09.03.2017

Accident manual of Zonal Railways stipulated that mock drills should be conducted for ART/ ARMV to check their readiness so that in case of an accident ART/ ARMV staff performs like a well rehearsed team. Board has noticed that the periodicity prescribed in the accident manual is varying over Zonal Railways and the methodology is also not uniform. Based on the recommendations of High Level Committee on Disaster Management (vide recommendation No. 106) each division should conduct one full scale disaster management exercise on the similar line as army exercises once in a year. Likewise, mock drills for ARTs/ ARMVs have to be conducted on a regular basis. Controller and Auditor General Report No. 13 of 2016 (Railways) Chapter no. 6 on Disaster Management was critical of Railways for not conducting mock drill as per the prescribed periodicity. To have uniformity over Indian Railway and ensure that all the relevant aspects are covered in the mock drills and full scale disaster management exercises, detailed instructions are prepared by the Board and these instructions are annexed to this letter. Zonal Railways shall ensure that the mock drills and full scale disaster management exercises are conducted in the prescribed periodicity as per the procedure annexed. Details of drills may please be reported to Board in the Safety PCDO as per Annexure-XIII.

Disclaimer

- This is only a reference book/guide. Although great care has been taken to ensure accuracy, any error or omission may please be brought to the notice of PCSO/NWR/JP.
- Any information regarding railways as well as civil departments may change from time to time, viz., telephone/Mobile nos. list of Private Medical Practitioners etc.
- In case of any doubt or for details, concerned manuals, rule books may be referred.
- This compendium of instructions has been prepared for dealing with disaster and not normal train accidents



संरक्षा संगठन
उत्तर पश्चिम रेलवे
जयपुर
NORTH WESTERN RAILWAY
SAFETY DEPARTMENT
JAIPUR



Mock exercise with NDRF at LGH on 05.07.2019



Mock exercise with NDRF at ABR on 10.12.2019

गुणवत्ता नीति

उत्तर पश्चिम रेलवे रेल संचालन में किसी भी प्रकार की आपदा की स्थिति में अपने उपभोक्ताओं को तुरंत राहत एवं बेहतर बचाव के लिए वचनबद्ध है।

QUALITY POLICY

NWR IS COMMITTED TO TAKE PROMPT AND EFFICIENT ACTION TO PROVIDE RELIEF AND RESCUE TO RAIL USERS IN CASE OF ANY DISASTER ON THIS RAILWAY.

QUALITY OBJECTIVES

The important quality objectives of the Organization are:

- To implement and ensure continual compliance of ISO 9001:2015 based quality Management System for effective services.
- To reduce initial lead time for inter department functions as per laid down norms and means.
- To monitor quick and efficient Medical assistance to distressed passengers / victims by keeping the equipment in ready to use conditions in divisional ARMEs.
- To exercise the power as delegated in the Schedule of Powers for quick and prompt restoration & relief.
- To monitor the availability of quality training at different centers as per laid down norms for front-line staff for quick restoration and rescue acquainted with first-aid.
- To manage proper protection, identification & delivery of belongings of injured and deceased passengers to their representative.
- To manage quick and timely transportation of stranded and effected passengers to valid destination.
- To monitor restoration of traffic at the earliest & build up confidence of public.