SOUTH CENTRAL RAILWAY

ZONAL DISASTER MANAGEMENT PLAN

PART - I

(EDITION – 2021)

HEADQUARTERS

SAFETY ORGANISATION

The information provided in this document is for the purpose of general guidance only. Though efforts are made to ensure the document is authentic and accurate, in case of any conflict, the G&SR, Accident Manual and other Codal instructions would override this document.

INDEX

Chapter	Contents	Page No.
I	INTRODUCTION	1-6
II	OBJECTIVES	7-17
III	GUIDELINES OF RAILWAY BOARD	18-19
IV	DISASTERS AND TRAIN ACCIDENTS (ACT PROVISIONS -DM ACT 2005	20-32
V	PREPAREDNESS	33-48
VI	RESOURCE UNITS	49-51
VII	VARIOUS PHASES OF DISASTER MANAGEMENT	52-55
VIII	AUTOMATIC TRIGGER MECHANISM	56-57
IX	MEASURES ADOPTED FOR PREVENTION AND MITIGATION DISASTERS	58-60
X	PASSENGER CARE	61-66
XI	HOSPITAL MANAGEMENT DM PLAN AND MEDICAL PREPAREDNESS	67-70
XII	OTHER DISASTERS, CHEMICAL DISASTERS, BIOLOGICAL DISASTERS, WATER LOGGED RAIL DISASTERS	71-87
XIII	NATIONAL CALOMITIES LIKE CYCLONE, EARTH QUAKE, FLOODS AND LAND SLIDES AND TEMPORARY SHELTORS	88-105
XIV	DISASTER INFORMATION FLOW AND ALERTS OF DISASTER & MEDIA MANAGEMENT	106-113
XV	ROLE OF SECURITY DEPARTMENT IN DISASTER MANAGEMENT	114-117
XVI	Dos AND DONT's FOR FRONT LINE STAFF DO'S AND DON'TS FOR FRONTLINE	118-122

	WORKERS AND DM PROFESSIONALS	
XVII	**CRISIS MANAGEMENT**	**123-133**
XVIII	**DISASTER MANAGEMENT TRAINING**	**134-137**
XIX	**MANAGEMENT OF RAIL DISASTER IN TUNNEL /DEEP CUTTING OR IN A WATER BODY**	**138**
XX	**NDMA POLICY**	**139-141**
XXI	**NDMA GUIDELINES ON INCIDENT REPONSE SYSTEM (IRS)**	**142-143**
XXII	**NDMA GUIDELINES ONSCALING, TYPE OF EQUIPMENT AND TRAINING OF FIRE SERVICES**	**144-145**
XXIII	**NDMA GUIDELINES ON PREVENTION & MANAGEMENT OF THUNDERSTORM AND LIGHTENING/ SQUALL/STRONG DUST/ HAILSTORM &STRONG WINDS**	**146-153**
XXIV	**PREVENTION AND MANAGEMENT OF HEAT WAVE – EXECUTIVE SUMMARY**	**154-159**
XXV	**NDMA GUIDELINES ON DISABILITY INCLUSIVE DISASTER RISK MANAGEMENT**	**160-163**
XXVI	**NDMA GUIDELINES ON TRAINING AND CAPACITY BUILDINGAND SISTER ORGANISATION**	**164**
XXVII	**PRIME MINISTER'S 10 POINT AGENDA ON DISASTER RELATED ISSUES.**	**165-169**
XXVIII	**OFFICERS NOMINATED TO REPORT DISASTER CONTROL AND TO PROCEED TO THE SITE OF ACCIDENT**	**170-171**
---	**ATLAS – ANDHRA PRADESH, MAHARASTRA & TELANGANA STATES SHOWING FLOOD HAZARDS**	**172-174**

CHAPTER – I

INTRODUCTION

1.0 DEFINITION OF DISASTER MANAGEMENT AS PER NDMA

Disaster Management is a multi-faceted approach by a group of professionals with competence to address the diverse issue that will involve formulation of rules, regulations, preparation of guidelines and operating procedures, law making, enforcement, legislation, managing humanitarian aspects and traumatic situations, addressing complex socio-economic and technical issues. The techniques, therefore has to be based on knowledge and infrastructure by competent professional related to the task, terrain and activity therein.

In the course of time, Disaster Management approach had a paradigm shift, gained from the experience of the past, to a proactive and holistic approach to disasters to pre-empt them instead of post disaster responses. Disaster Management process is a developmental opportunity to improve the society and thereby reduce the risk factor to the society. The society is made capable to respond by themselves to achieve their goal by disaster preparedness so that society is not susceptible to disasters and the impact will be less.

Engineering construction activity is to be geared with sound practices, for growth and development with a legal framework and to enforce the rule of law, to help the disaster management preparedness by the authorities in the system.

With the gradual growth of IR and its transition to transportation of passengers and goods, the railway gradually built up its own infrastructure of cranes, ARTs, ARMVs. Till the beginning of 2005, a disaster on Railways in effect meant a serious train accident; other disasters such as floods, earthquakes, etc., were handles in a non coordinated manner. Disaster preparedness of the Railways, mainly pertaining to handling train accidents, had been gone into by the High-level Committee on DM in 2003 whose recommendations, where relevant are kept in view during the preparation of DM Plan.

1.1 DEFINITION OF 'DISASTER'

As per DM Act-2005, Disaster is defined as ***"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".***

The term "Disaster" envelops a wide spectrum of occurrences or consequences leading to a mishap. Disaster is an unusual occurrence, which is characterized by sudden calamitous event, having loss of life, injury, great material damage, loss and distress.

Further, vide Railway Board letter No. 2003/Safety – (DM)/6/2/Pt. dated 06.01.2009, the definition of Railway Disaster and co-ordination of DM Plan was revised. Accordingly, the Railway Disaster is defined as:

"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 Organization."

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 with steep gradients & 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.

1.2 AUTHORITY TO DECLARE A DISASTER ON RAILWAYS (RLY BOARD'S LR.NO.2003/SAFETY (DM)/6/2 PT. DATED 06.01.2009):

Railway Board has authorized GMs, AGMs or CSOs (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, a serious train accident may turn into a railway disaster, if not handled and managed properly and 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, particularly affecting railway system are addressed and their details are appropriately incorporated in their Disaster Management Plans.

The high level committee on Disaster Management analysed various aspects of the present Disaster Management system and has pointed out areas of deficiencies such as lack of precision, speed and co-ordination, non-availability of clear procedure to avail outside resources and non-availability of an updated databank on outside

agencies resources etc. Some important measures suggested by High-Level Committee on Disaster Management are as under:

Till date Relief, Rescue and Restoration are primary objectives of DM Plan. By the introduction of DM Act 2005, the following areas are brought under the purview:

1. Prevention, Preparedness & Capacity Building
2. Preparation of databank
3. Streamlining the Logistics of Railways
4. Seeking assistance from State Government and involvement of Local Civilian Authorities
5. Effective Trauma Care
6. Proper Trigger Mechanism to ensure adequate medical care within “Golden Hour”
7. Divisional/Zonal Disaster Management Plans
8. Making use of Non-Railway Resources
9. Maintenance of ART/MRT to have failure proof service
10. 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.

With a view to buildup appropriate capability to manage Disaster at Divisional & Zonal levels, clear instructions, defining the role of various Departments are required. This DM Plan issued by this Railway covers such instructions to organise an efficient Rescue, Relief & Restoration operation and lay down the basic framework for immediate action by every Railway Servant. It has been dove-tailed with information what so ever made available from respective State Governments / Armed Forces, etc. as also from Divisional DM Plans of SC, HYB, BZA, GNT, GTL & NED Divisions. Details of Hospitals, NGOs and Organisations having infrastructure facilities and resources available with Civil Authorities useful in Disaster Management are made available in this document.

1.3 SCOPE OF ZONAL DISASTER MANAGEMENT PLAN:

- Train Accidents
- Fire Accidents
- Cyclone/Storm
- Earth-quakes
- Floods and Breaches
- Landslides
- Bomb blasts/explosions and other anti-social / Terrorist activities

- Hazardous Gas (Emergencies/Calamities), which assumes the magnificence of a disaster as prescribed in the definition of disaster in Railway parlance.

Indian Railways is one of the largest Railway systems and is the principal mode of transport for both passengers and goods in the country.

With growing Passenger and Freight traffic, 'Safety' has become one of the principal concerns. The Safety of Railway operations is becoming all the more imperative in view of the Railways Endeavour to lift more Passengers and Freight traffic. The Railways are gearing themselves to meet the challenges posed by the escalating traffic needs. Accordingly, high priority is being given to various safety measures to ensure greater safety in rail travel and transportation of goods.

While every care is taken to ensure safety, disasters of rail accidents do occur due to internal and external factors on Railways.

1.4 STRENGTH OF INDIAN RAILWAYS:

In handling disasters, IR has a unique position of having self-resources when compared to other Departments of Government of India. These include;

1. Own advanced communication network.
2. Operating Control at all the three levels, i.e., National level, Zonal level and Divisional level.
3. TA camp units.
4. Uniformed force of RPF
5. Own and full-fledged medical infrastructure
6. Civil Defense Organization
7. An army of Trackmen spread out in the entire network
8. Scouts and Guides for background support
9. Dedicated rescue / restoration and medical equipment on rails

1.5 SHORTCOMINGS OF RAILWAYS:

However, there are certain areas where Railways do not possess adequate resources such as;

1. Tunnel rescue equipment
2. Non-availability of trained divers for extrication of passengers when a train falls into the sea/river/lake, etc.,
3. Non-availability of cranes loaded on a ship / barge for lifting the coaches from water body.
4. Inability to handle CBRN (Chemical, Biological, Radiological and Nuclear) Disasters and major fire.

5. Limited resources to handle terrorist attack on trains, stations and other railway premises.

1.6 DISASTERS IN RAILWAYS ARE MAJORLY CAUSED AS A RESULT OF:

i. Human failure / equipment failure.
ii. Sabotage.
iii. Natural calamities.

Disasters in Railways result in heavy loss of lives, injuries, damage to property and affect the normal movement of trains.

i. Human / Equipment failure leads to:

a. Collisions.
b. Derailments.
c. Train marooned and derailment on bridges`
d. Tunnel collapse on a train
e. Derailment of a train carrying explosives and highly inflammable material.
f. Level crossing accidents at Manned/Unmanned Level Crossings.
g. Fire on Train.

ii. Sabotage involving disaster is on account of:

a. Act of terrorism and Bomb blasts.
b. Setting fire to train/Railway installations and Railway property.
c. Chemical disaster, biological, radiological and nuclear disasters.
d. Tampering with Railway fittings to cause accidents.
e. Placing of obstructions on track to cause disruption to traffic.

iii. Disasters owing to natural calamities are:

a. Earth quakes.
b. Land slides.
c. Cyclones/Floods.
d. Storm/Tornadoes.
e. Snow avalanches and
f. Tsunamis

1.7 NEED FOR DISASTER MANAGEMENT PLAN:

Various recommendations have been appointed by the IR to review the preparedness to handle a disaster. A high-level committee on DM was constituted in 2002 headed by the then MM Sri. S. Dhasharathy to review the DM on IR. This committee had mainly gone into DM system on IR related to train accidents and not into natural calamities. The committee had given 111 recommendations of which 99 are implemented and the remaining 12 are at various stages of implementation.

Another DM Review Committee was appointed in February 2007 headed by Sri. G. Narain, retired IPS Officer to audit the current preparedness of all types of disasters / hazards for prevention, mitigation, rescue, relief and rehabilitation. This committee had given 108 recommendations of which 67 were not accepted and from the remaining 41 accepted recommendations, 36 have already been implemented and 5 are under implementation stage.

Indian Railways do have an established system of disaster response. Swiftness in an accident primarily depends upon various components constituting the accident relief team being fully conversant with their areas of responsibility.

Success or failure of rescue operations in the event of major disaster depends upon the adequate resources both in terms of men and material and extensive teamwork and co - ordinated efforts. In this regard, Railways have set up a High-level Committee to review Disaster Management on Indian Railways. Based on the recommendations of the Committee, it has been felt necessary to have well documented DM Plan and upgrade our resources to improve the capability to handle disasters and mitigate the hardships and sufferings of passengers.

1.8 NODAL DEPARTMENT FOR POLICY FORMULATION ON DISASTER MANAGEMENT ON INDIAN RAILWAYS:

The preparation of DM plans on IR and o the Zonal Railways in co-ordination with different Departments of the Railway, other Central / State Government Agencies, NGOs, Private Agencies, etc., has to be done by the **Safety Department** in the Railway Board, on the Zonal Railways and I Divisions.

The Hospital Management Plans and the Security arrangements (drills, etc.,) shall be prepared and coordinated by the **Medical and Security Departments** respectively.

The management of Floods, cyclones, earthquakes, landslide, etc., and preventive action to be taken for mitigation shall be coordinated by the **Civil Engineering Department**.

The rescue and restoration DM Plan including preparing plans and procurement of specialized equipment and rescue centric training of personnel has to be coordinated by the **Mechanical Department**.

****

CHAPTER II

OBJECTIVES

2.1 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, data bank to ensure quicker means to render medical help.
- 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.
- Speedy transportation to hospital.
- Proper and timely dissemination of information to public in the aftermath of the Disaster.
- Defining responsibilities of various staff/departments.

2.2 KEY CONCEPTS:

1. Disaster
2. Disaster Management
3. Disaster Management Act 2005
4. Golden Hour
5. Trigger Mechanism
6. Incident Command Control System
7. NDRF
8. Triage – a) Site Triage & b) Hospital Triage
9. Psychological rehabilitation
10. National building Code-2005

2.3 GOLDEN HOUR CONCEPT

"**If a critical trauma patient is not given definite medical care within one hour from the time of accident, chances of his ultimate recovery reduce drastically, even with the best of medical attention thereafter. This initial one hour period is generally known as The Golden Hour"**

- Render definite medical care within Golden Hour.
- Stop bleeding and restore blood pressure within an hour.
- Persons under shock shall immediately be relieved of shock.
- Transport the casualties to the nearest hospital.

2.4 TRIGGER MECHANISM (EMERGENCY RESPONSE SYSTEM)

Trigger Mechanism has been conceptualised 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. To have an effective Trigger Mechanism, High Power Committee has identified functions for the Managers dealing disasters:

2.5 THE PROCESS OF PREPAREDNESS SHOULD BE WELL ORCHESTRATED AND MUST RESPOND INSTANT ON INFORMATION OF THE DISASTER.

1. Evolving an effective warning mechanism
2. Identifying activities and their levels
3. Identifying sub-activities under each activity/level of activity
4. Specifying authorities for each level of activity and sub-activity
5. Determine the response time for each activity.
6. Working out individual plans of each specified authority to achieve the activation as per the response time
7. Having quick response teams for each specified authority
8. Having alternative plans and contingency measure
9. Providing appropriate administrative and financial delegations to make the response mechanism functionally viable and
10. Undergoing preparedness drills.

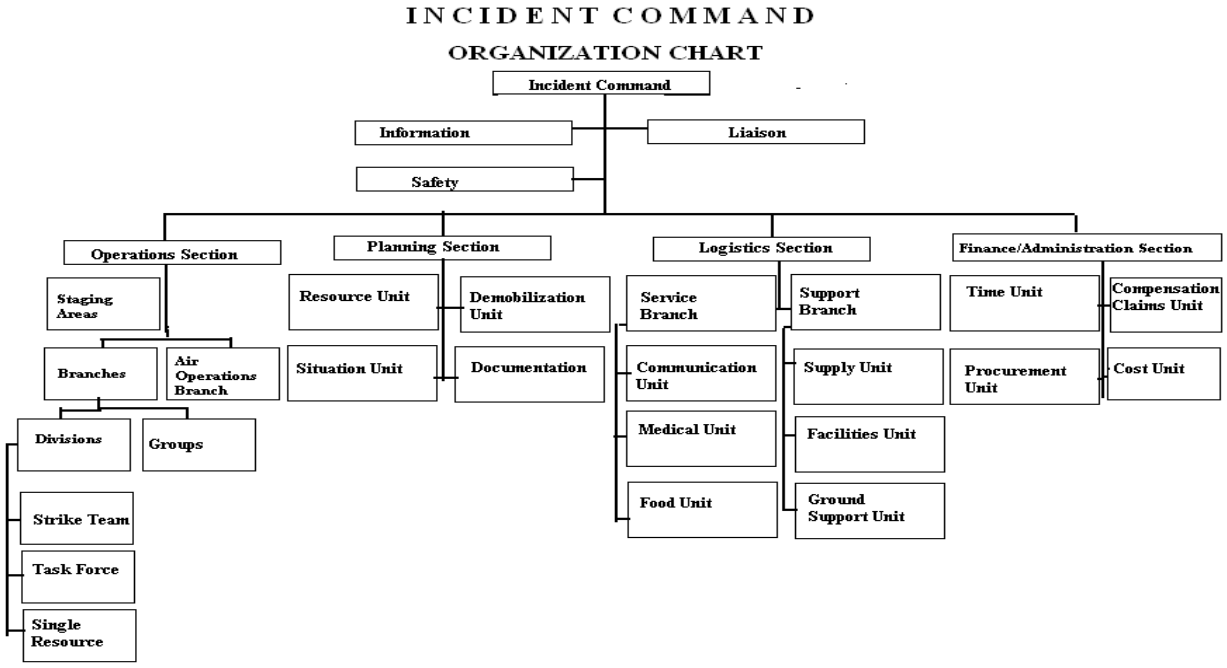
2.6 INCIDENT COMMAND SYSTEM (ICS):

A. Introduction

The Incident Command System (ICS) is an on-scene, all-risk, flexible modular system adaptable to any scale of natural as well as man-made emergence/incidents. The ICS seeks to strengthen the existing disaster response management system by ensuring that the designated controlling/responsible authorities at different levels are backed by trained Incident Command Teams (ICTs), whose members have been trained in different facets of emergency/disaster response management. The ICS will not put in place any new hierarchy or supplement the existing system, but will only reinforce it. The members of the ICT will be jointly trained for deployment as a team. When an ICT is deployed for an incident, ‘all-concerned’ agencies of the Government will respond as per the assessment of the Team. This system therefore enables proper co-ordination amongst different agencies of the Government. The five command functions in the Incident Command System are as follows:

i) **Incident Command** – Has overall responsibility at the incident. Determines objectives and establishes priorities based on the nature of the incident, available resources and agency policy.
ii) **Operations** – Develops tactical organisation and directs all resources to carry out the Incident Action Plan.
iii) **Planning** – Develops the Incident Action Plan to accomplish the objectives. Collects and evaluates information, and maintains status of assigned resources.
iv) **Logistics** – Provides resources and other services needed to support the organisation.
v) **Finance/Administration** - Monitors costs related to the incident, provides proper accounting, procurement, time recording, cost analysis, and overall fiscal guidance.

B. The composition of the ICT is depicted in the following organizational chart:



The ICS will comprise of two broad components, viz. Incident Response and System Institutionalisation. Incident Response will involve three elements: (a) Co-ordination, (b) Incident Command Teams and (c) Specialised Tactical Resources. The Co-ordination element will have the Headquarters Teams at the National, State and District levels. The Incident Command Teams will be responsible for on-scene management and formed at the district and state levels. As shown in the organisational chart, the following will be the eight core positions in the ICT.

i. Incident Commander

ii. Operations section
iii. Planning section
iv. Logistics section
v. Finance/Administration section
vi. Safety Officer
vii. Liaison Officer
viii. Information Officer

The Specialised Tactical Resources are being formed at the National or State levels having technical expertise in areas like handling hazardous material, carrying out search and rescue.

The System Institutionalisation component will have three elements of (a) Training (b) Certification & Qualification and (c) Publications. The activities under this component will ensure that suitable personnel are identified, trained and certified to perform their assigned responsibilities for Incident Response.

DISTRICT LEVEL INCIDENT RESPONSE

a. At the District level, there will be one District Headquarters Team with the primary function of assisting the District Collector in handling tasks like general co-ordination, distribution of relief materials, media management and the overall logistics.

b. In addition to the District Headquarters Team, there will be one or more District level Incident Command Teams (DICTs) which can be deployed at the site of a complex emergency/disaster. Suitable officers from the District Administration will be carefully selected and professionally trained for the different ICS positions in order to constitute the District-level Incident Command Teams. As and when required, these DICTs will be deployed at the site of an emergency/disaster for on-scene management. The teams will focus on the operational aspects of response management, duly supported by other functions in ICS, e.g. Planning, Logistics, Finance/Administration, etc. The officers drawn for this assignment will be carefully selected by the District Collector depending upon their fitness, ability and aptitude for any of the DICT positions and they will be professionally trained to fulfill their assigned roles.

Arrangements will also be made for ensuring their mobilization in a time-bound manner for their deployment to the trouble spot. Due consideration for the appropriate level of seniority will be given while constituting the teams. Although by and large, the team personnel may be selected from the General Administration/Revenue Department which traditionally handles disaster response in our country, the option to pick up willing and capable personnel from any other department for taking up specific positions in the DICT will be left open. For some ositions, a suitable number of additional personnel will be trained as reserve for taking care of contingencies like transfers, promotions, etc.

c. For the position of the Incident Commander, a suitable officer of the tank of Additional District Magistrate will be preferred. The District level Incident Command Teams will function under the overall control of the Collector/District Magistrate. The State Governments can also deploy the DICTs to other districts depending upon the magnitude of the disaster.

2.7 NATIONAL DISASTER RESPONSE FORCE (NDRF)

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

As per Disaster Management Act 2005, various Ministries and Departments under the 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 major disasters affecting Railways. Assistance of NDRF could be of great help to the Railways in major railway disasters. These forces are located at 12 locations in the country for dealing with relief and rescue operations related to all types of disasters. Each Battalion has 6 Companies comprising of 3 teams each. Team comprises of 45 men of which 24 are for Search and Rescue and balance 21 for support functions. Shortlisted and trained staff are on deputation in NDRF.

NDRF HEADQUARTERS

Name & Designation	Contact Nos.	E.mail address
Shri Sanjay Kumar (IPS) Director General NDRF, 6th Floor, NDCC-II Building, Jai Singh Road, New Delhi - 110001.	011-23438020, 011-23438119 Fax No. 011-24363261	dg.ndrf@nic.in

CONTROL ROOM DETAILS
NO. - 011-24363260, FAX NO. - 011-23438091,

CISF NDRF Battalion, Arakkonam has Tamil Nadu, Puducherry, Kerala and Andhra Pradesh (except Srikakulam and Vizianagaram Districts) in its areas of responsibility. The Battalion is headed by Senior Commandant, under the administrative/operational

control of Inspector General (Adm.), CISF HQRs., New Delhi and Deputy Inspector General (DM), CISF HQRs., New Delhi.

Details of NDRF battalions are as under:-

Designation	Address					
Commandant	1st BN NDRF, Patgaon PO - Azara,Distt. Kamrup Metro, Guwahati-781017					
Commandant	2nd BN NDRF, Near RRI Camp. Haringhata, Mohanpur, Nadia, (West Bengal) Pin - 741246					
Commandant	3rd BN NDRF, PO-Mundali, Cuttack - Odisha Pin - 754013					
Commandant	4th Bn NDRF, PO - Suraksha Campus , Arrakonam , Distt. Vellore Tamilnadu-631152					
Commandant	5th Bn NDRF, Sudumbare Taluka, Distt - Maval Pune (Maharashtra) Pin - 412109					
Commandant	6th Bn NDRF, Chilora Road , Gandhinagar, Pin - 382042					
Commandant	7th Bn NDRF, Bibiwala Road, Bhatinda (Punjab) Pin 151001					
Commandant	8th Bn NDRF, Kamla Nehru Nagar, Ghaziabad (UP) Pin - 201002					
Commandant	9th Bn NDRF, Bihata Patna, Bihar Pin - 801103					
Commandant	10th Bn NDRF, ANU Campus, Nagarjuna Nagar, Guntur (AP) Pin - 522510					
Commandant	11 th Bn NDRF, Sanskritik Sankul, Maqbool Alam Road, Varanasi, UP - 221002					
Commandant	12 th Bn NDRF, Itanagar, Arunachal Pardesh791112					

Zonal Railways should get in touch with NDRF officers at the nearby NDRF locations to have the first hand knowledge of the resources available with them and also familiarise NDRF task force with railway related disaster situations and expose them to the issues relevant to rescue and relief of passengers during railway accidents. Railways may also associate NDRF in the full-scale DM Exercise which shall be held once every year. Respective NDRF Battalion pertaining to the Railway territory has to be co-ordinated while doing such exercises.

There are no charges for availing the services of NDRF except for the rail transportation which railways may provide at their cost for attending to rail accidents.

Railways may also have to provide the rail transportation logistics for transporting NDRF in case of non-railway exigencies.

Railway Board have also empowered Divisional Railway Managers to directly requisition the relevant NDRF Battalion for relief and rescue operations depending upon the gravity of situation so that their services could be made available expeditiously at the time of major Railway disasters without any loss of time. However, requisitioning of NDRF should be judicious and NDM Control Room under **Ministry of Home Affairs (Tele No.011-23092885 Fax No.011-23093750) and Security Control Room (Tele No.011-23387981 Fax No.011-23303983) and safety cell (Tele Fax No.011-23382638) in the office of Railway Board must be kept informed**.

This instruction is issued by Railway Board in consultation with National Disaster Management Authority (NDMA) having the administrative control on NDRF.

2.8 NDMA CONTROL ROOM

Name & Designation	Contact Nos.	E-mail address & Mobile No.
NDMA Control Room	011-26701728 011-1078 Fax- 011-26701729	9868891801 9868101885 controlroom@ndma.gov.in, ndmacontrolroom@gmail.com,

2.9 TRIAGE

The term triage originates from the French verb 'trier', which means to sort, select, or classify. There are many definitions of triage. In disaster medicine, triage is an evaluation or an assessment process of the medical condition of victims and their categorisation depending on the severity of sustained injuries. Triage is to solve the problem of imbalance, which has come up due to excessive demands on the available resources. Triage process ensures care to casualties according to the,

- Severity of injury
- Need for treatment
- Prognosis
- Available medical resources.

Triage is a complex process and includes – sorting and categorisation of victims, and initiating life saving measures and treatment at the;

- Site
- During transportation; and
- In the hospital

It determines priority for evacuation to hospital, and also decides priority for surgical or other specific treatment required. In disaster situation, triage is a continuous process and starts at the site, where the victim comes in first contact with medical care providers, and goes to hospital triage area where casualties are

received. Re-triage is essential at each level, from the site to the hospital, and hence is a continuous activity.

These are two major types of triages:

- **Site Triage** – The non-medical triage and is done by the rescue team or the first aid providers at the site. It is also called pre-hospital triage.
- **Hospital Triage** – Medical triage done by trained physicians and surgeons in the receiving hospital.

Triage must distinguish the casualties by different colour tagging, according to the gravity of their injury, and need for urgent medical care or priority for transportation. The Airport Colour Coded Triage Tagging System is accepted world-wide and is used internationally.

- **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 injuries and able to walk.
- **Black** – Dead.

Rescue workers who handle causalities at site and perform first triage, should apply coloured tags to the wrist of each, examined causality. Simultaneous to this, the first aid personnel should start control of bleedings, and anti-shock positions for red-tagged patients, and remove the green-tagged patients from danger areas. Rescue workers should give resuscitation to those who require and make arrangements for shifting the red and yellow-tagged victims.

2.10 PSYCHOLOGICAL REHABILITATION

Survivors of disasters face the danger of death or physical injury and possible loss of their homes, possessions, and communities. Such stress places survivors at risk of behavioral and emotional readjustment problems and Post Traumatic Stress Disorder (PTSD) is the manifestation of such situations.

Impact of Disasters on Mental health: Most children, as well as, adult survivors of the disasters, experience one or more of the following stress reactions for several days:

- **Emotional reactions**: Temporary feelings of shock (that is, for several days, or a couple of weeks), fear, grief, anger, resentment, guilt, shame, helplessness,

hopelessness, or emotional numbness (difficulty in feeling love and intimacy, or difficulty in taking interest and pleasure in day-to-day activities.)

- **Cognitive reactions**: Confusion, disorientation, indecisiveness, worry, shortened attention span, difficulty in concentrating, memory loss, and unwanted memories, self-blame.
- **Physical reactions**: Tension, fatigue, edginess, difficulty in sleeping, bodily aches or pain, started reactions, fast heartbeat, nausea, change in appetite, and change in sex drive.
- **Interpersonal reactions:** In relationships at school, workplace, in friendships, in marriage, or as a parent, distrust, irritability, conflict, withdrawal, isolation, feeling rejected or abandoned, being distant, judgmental, or over-controlling.

Mental health interventions for disasters: In a major disaster, effective mental health response requires the delivery of both clinical and administrative services in ways that differ from services typically provided by the mental health professionals. The primary objective of disaster relief effort is to restore community equilibrium. Disaster mental health services, in particular, work toward restoring psychological and social functioning of individuals and the community, and limiting the occurrence and severity of adverse impacts of disaster-related mental health problems, such as post-traumatic stress reactions, depression, or substance abuse. The aim of all Disaster Mental-Health Management should be the humane, competent, and compassionate care of all affected.

Basic principles of Emergency Care: It is helpful to remember several basic principles or objectives of emergency care.

1) Provide for basic survival needs and comfort (e.g. water, food, shelter, clothing etc.).
2) Help survivors achieve restful and restorative sleep.
3) Preserve an interpersonal safety zone protecting basic personal space (e.g. private, quiet, personal effects).
4) Provide non-intrusive ordinary social contact (e.g. use of humour, small talk about current events, silent companionship).
5) Address immediate physical health problems or exacerbating of prior illnesses.
6) Assist in locating and verifying the personal safety of separated loved ones or friends.
7) Reconnect survivors with loved ones, friends, and other trusted people.
8) Help survivors to take practical steps to resume ordinary daily life (e.g. daily routines, or rituals).
9) Help survivors take practical steps to resolve pressing immediate problems caused by disaster (e.g. loss of a functional vehicle, inability to get relief vouchers).
10) Facilitate resumption of normal family, community, school and work roles.
11) Provided survivors with opportunities to grieve their losses.
12) Help survivors reduce problematic tension, anxiety, or despondency to manageable levels.

13) Support survivors' local helpers through consultation and training about common stress reactions, and stress management techniques.

2.11 NATIONAL BUILDING CODE OF INDIA- 2005

National Building Code of India 2005 is an integrated document formulated after successive modifications which are the outcome of the lessons learnt in the aftermath of devastating earth quakes and floods and other natural calamities all over the country over the past decade. This National Building Code is a state-of-the-art document and contemporary application of international standards. This also projects the requirement of green belts, landscaping, planting of trees and shrubs, special requirements for low income housing, fire safety regulations for high rise buildings, revision of structural design section based on new revised codes such as Concrete Code, Earth quake code, Masonry code, addition of outside design conditions for important cities in the country, requirements relating to noise and vibration, air filter, automatic control, energy conservation for air conditioning and guidance on the design of water supply system for multistoried buildings.

The National building code is a single document in which the information contained in the various Indian Standards is reflected in a pattern of continuity and cogency with interdependent requirements. The code gives the all the information required by the architect, structural, construction, services engineers and other professional from the early stages of planning to translate the building on to ***terra firma.***

Para 0, 5, 6, 7, 8 & 9 of the code are binding upon the Railways as a Public Department involved in major construction activities all over the country. Railways may also refer to the instructions issued from time to time by NDMA.

2.11.1 National Building Code of India 2005 reflects the following salient features:

1. Inclusion of a complete philosophy and direction for successfully accomplishing the building projects through Integrated Multidisciplinary Approach right from conceptual stage through planning, designing, construction, operation and maintenance stages.
2. A series of reforms in building permit process.
3. Provisions for ensuring and certification of safety of buildings against natural disaster by engineer and structural engineer.
4. Provision for two stage permit for high rise residential and special buildings.
5. Provision for periodic renewal certificate of occupied buildings from structural, fire, electrical and health safety point of view.
6. Provision for empowering engineers and architects for sanctioning plans of residential buildings up to 500 m^2.
7. Inclusion of detailed town planning norms for various amenities such as Educational Facilities, Medical Facilities, Distribution Services, Police, Civil Defence, Fire Services, etc.
8. Revision of parking requirements for low metro and mega cities.
9. Updating of special requirements for low income housing for urban areas.
10. Inclusion of special requirements for low income housing for rural habitat planning.

11. Inclusion of guidelines for development planning for hilly areas.
12. Revision of the provisions for buildings and facilities for physically challenged.
13. Fire safety norms completely revamped through detailed provisions on Fire Prevention, Life Safety and Fire Protection.
14. Inclusion of new categories of star hotels, heritage structures and archeological monuments for fire safety provisions.
15. Substitution or halon based fire extinguishers/fire fighting system.
16. Promotion to new/innovative building materials/technologies.
17. Inclusion of latest provisions for earthquake resistant design and construction.
18. Inclusion of details on multi-disaster prone districts.
19. Inclusion of new chapter on design and construction using bamboo.
20. Chapter on prefabricated and composite construction for speedier construction.
21. Updating of provision of safety in construction.
22. Complete revision of provision on building and plumbing services in line with applicable international practices.
23. Provisions on rain water harvesting.
24. Inclusion of new chapter to cover landscaping needs.

****

CHAPTER III

GUIDELINES OF RAILWAY BOARD

3.1 PREPARATION OF DISASTER MANAGEMENT PLAN

Railway Board vide letter No. 2003/Safety-I/6/2 dated 29.09.2003 and letter No.2009/Safety/DM/6/14 dated 30.11.2009 has laid down the requirements of Zonal Railway Disaster Management Plan based on the instructions contained in the NDMA. Instructions contained in **DISASTER MANAGEMENT PLAN OF INDIAN RAILWAYS** published in November - 2009 also has been taken into cognizance while formulating the Disaster Management Plan of this Railway.

- Preparation and implementation of DM Plan is the responsibility of the concerned General Manager and Divisional Railway Managers.
- Authority to order ART/ARMV/BD trains – DRM & Sr.DOM/DOM of the Divisions during accidents.
- Senior-most railway officer at the site of accident shall be designated as **'Site Manager'**.
- Management of rescue operations – Primarily, Mechanical and Medical Departments. Assistance to be provided by all Railway servants (irrespective of departments) as needed.
- Relief operation including care for the dead - Commercial, Medical and RPF departments.
- Communication network - S&T department
- Lighting – Electrical Department.
- Crowd control and maintenance of law & order at site – Security Officials.
- State Police's clearance for restoration, Crowd control & Law and Order – Security Personnel to co-ordinate and ensure.
- Restoration operations:
  - Rolling stock - Mechanical Department.
  - Fixed infrastructure like Track, Overhead Equipments, Signaling System - By the concerned Departments.
- Maintenance of SPARTs/ARTs/ARMVs/Breakdown trains including rail-cum-road and road mobile emergency vehicles etc. - Mechanical Department.
- Maintenance of equipments kept in SPARTs/ARTs/ARMVs for rescue and restoration operations - Departments concerned.
- Media management at site:
  - Site Manager shall be the chief spokesman at site and can be assisted by Branch Officers concerned, if needed.

- Public Relations / Commercial & PR Department of the Division to look after the needs of the media at site.

➢ Checklists for Officers and Supervisors must be issued in the form of pocket booklet indicating Do's and Don'ts for the benefit of :

- First official reaching the site of accident.
- Senior-most officer at the site.
- Divisional/HQ Control Organisation.
- Station Manager.
- Other Frontline Staff.

The DM Plan inter-alia includes 'who is responsible for what activities' in detail. It must be reviewed and updated on the 1st of January, every year.

* * * * * *

CHAPTER IV

DISASTERS and TRAIN ACCIDENTS

(ACT PROVISIONS – DM ACT 2005)

4.1 NDMA (NATIONAL DISASTER MANAGEMENT AUTHIRITY):

4.1.1 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 DM for ensuring timely and effective response to disaster.

The National Authority may…

- ✓ Lay down policies on DM.
- ✓ Approve the national plan.
- ✓ Approve planes prepared by the Ministries or Departments of Government of India in accordance with the national plan.
- ✓ Lay down guidelines for State Authorities to draw state plan.
- ✓ Lay down guidelines to be followed by 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.
- ✓ Coordinate the enforcement and implementation of the policy and plan for DM.
- ✓ Recommend provision of funds for the purpose of mitigation.
- ✓ Provide such support to other countries affected by major disasters as may be determined by the Central Government.
- ✓ 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.
- ✓ Lay down broad policies and guidelines for the functioning of the NIDM.

4.1.2 Constitution and role of NDMA:

It is constituted under the DM Act as the apex body in the country to deal with DM holistically. Hon'ble PM is the ex-officio Chairperson of the authority The Members have also been nominated and the total number of Members is limited to **nine** to be nominated by the Chairperson. Vice Chairperson is Cabinet rank and Members are State rank Ministers, NDMA is responsible for laying down the policies, plans and guidelines for DM for ensuring timely and effective response to disaster. State and Districts have also been mandated to constitute State and District DMA respectively on the lines of NDMA.

4.1.3 Constitution of Advisory Committee by National Authority:

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

4.1.4 National Executive Committee:

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

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

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

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

The National Executive Committee may:-

- ✓ Act as the coordinating and monitoring body for DM.
- ✓ Prepare the national plan to be approved by the National Authority.
- ✓ Coordinate and monitor the implementation of the national policy.
- ✓ Lay down guidelines for preparing DM Plans for different Ministries or Departments or State Authorities.
- ✓ Provide necessary technical assistance to the State Government and State Authorities for preparing their DM Plans in accordance with the guidelines laid down by the national authority.
- ✓ Monitor the implementation of the national plan and the plans prepared by the Ministries or Departments of the Government of India.
- ✓ Monitor the implementation of the guidelines laid down b the national authority for integrating of measures for prevention of disasters and mitigation by the Ministries or Departments in their development plans and projects.
- ✓ Monitor, coordinate and give directions regarding the mitigation and preparedness measures to be taken by different Ministries or Departments and agencies of the Government.
- ✓ Evaluate the preparedness at all Governmental levels for the purpose of responding to any threatening disaster situation and give directions where necessary for enhancing such preparedness;
- ✓ Plan and coordinate specialized training programmes for DM for different levels of offices, employees and voluntary rescue workers;
- ✓ Coordinate response in the event of any threatening disaster situation or disaster;

- ✓ Lay down guidelines for or give directions to the concerned Ministries or Departments of the Government of India, the State Government and State Authorities regarding measures to be taken by them in response to any threatening disaster situation or disaster;
- ✓ Require any department or agency of th Government to make available to the National Authority or State Authorities such men and material resources as are available with it for the purposes of emergency response, rescue and relief.
- ✓ Advise, assist and co-ordinate the activities of the Ministries or Departments of the Government of India, State Authorities, statutory bodies, other Governmental or non-governmental organizations and others engaged in DM.
- ✓ Provide necessary technical assistance or give advice to the State Authorities and District Authorities for carrying out their functions under this Act;
- ✓ Promote general education and awareness in relation to DM.
- ✓ Perform such other functions as the National Authority may require it to perform.

4.1.5 Role of nodal and other Central Ministries and Departments:

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

Role of Central Ministries and Departments: As DM is a multi-disciplinary process, the NPDM lays down that all Central Ministries and Departments will have a key role in the field of DM. The nodal Ministries and Departments of Government of India i.e., Ministry of Agriculture, Atomic Energy, Civil Aviation, Earth Sciences, Environment and Forests, Home Affairs, Health, Mine, Railways, Space, Water Resources, etc., will continue to address specific disasters as assisted to them.

Institutional arrangements of Central Government:

- ❖ **Armed Forces:** Conceptually, the Armed Forces are called upon to assist the Civil Administration only when the situation is beyond their coping capability. In practice, however, the Armed Forces form an important part of the Government's response capacity and are immediate responders in all serious disaster situations. On account of their vast potential to meet any adverse challenge, speed of operational response and the resources and capabilities at their disposal, the Armed Forces have historically played a major role in emergency support functions. These include communication, search and rescue operations, health and medical facilities and urban transportation, especially in the immediate aftermath of a disaster. The air and heli-lift and movement of assistance to neighbouring countries primarily fall within the expertise and domain of the Armed Forces. The Armed Forces will participate in imparting training to Trainers and DM Managers, especially in CBRN aspects, heli-insertion, high altitude rescue, watermanship and training of paramedics. At the national level, the Chief of the Integrated Defensce Staff and the Chairman Chiefs of Staff Committee has already been included in the NEC.

Similarly, at the State and District levels, the local representatives of the Armed Forces may be included in their Executive Commitees to ensure closer coordination and cohesion.

- **Central Paramilitary Forces:** The Central Paramilitary Forces, which are also the Armed Forces of the Union, plays a key role at the time of immediate response to disasters. Besides contributing to the NDRF, they will develop adequate DM capability within their own forces and respond to disasters which may occur in the areas where they are posted. The local representatives of the CPMFs may be co-opted / invited in the executive committee at the State level.
- **State Police Forces and Fire Services:** The State Police Forces and crucial immediate responders to disasters. The Police force and the Fire Service upgraded to acquire multi-hazard rescue capability.
- **Civil Defence and Home Guards:** The mandate of the Civil Defence and the Home Guards will be redefined to assign effective role in the field of DM. They will be deployed for community preparedness and public awareness. A culture of voluntary reporting to any duty stations in the event of any disaster will be promoted.
- **State Disaster Response Force (SDRF):** States will be encouraged to create response capacities from within their existing resources. To start with, each state may aim at equipping and training one Battalion equivalent Force. They will also include women members for looking after the needs of women and children. The States and UTs will also be encouraged to include DM training in their respective Police Training Colleges and basic and in-service courses for gazette and non-gazetted officers.

4.1.6 Guidelines issued by NDMA and action thereon:

Till 2010, NDMA have already issued guidelines on the management of earthquakes, cyclones, floods, medical preparedness and mass casualty management, chemical disasters, biological disasters, nuclear disasters, chemical (terrorism0 disaster, landslides and snow avalanches and preparation of State DM Plans, incidence response system, strengthening of safety and securing for transportation of POL tankers, management of tsunamis, role of NGOs in DM, management of drought, etc.,. These guidelines are available on the NDMA website. These guidelines are statutory and mandate all the stakeholders including Railways to take necessary measures for prevention and mitigation of all types of disasters possible on their system and also to have mechanism in place for rescue, relief and restoration, if these happen.

4.1.7 Guidelines on chemical disasters:

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

4.1.8 Guidelines on chemical (Terrorism) disasters:

These guidelines call for the railways to strengthen mechanism against chemical terrorism related disasters. Medical and RPF Personnel would be required to be given specialized training to handle such disasters.

4.1.9 Guidelines on nuclear and biological disasters:

These guidelines call for the railways to take stipulated precautions in the transportation of radio-active substances and chemical (biological) items.

4.1.10 Guidelines on preparation of State DM Plans:

These plans concern the Zonal Railways to the extent that coordination mechanism between the State and the Railways institutionalized for disaster response. The Relief Commissioners in the States may be coordinated for assistance required from the State Governments, District Officials as also to involve NGOs. Mutual sharing of each other strengths and facilities has tobe institutionalized as a system.

4.1.11 Guidelines on medical preparedness and mass casualty management:

This envisages train based casualty transport and evacuation system with following highlights:

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

NATIONAL POLICY ON DM (NPDM):

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

Authority has been created under the Chairmanship of Chief Minister which has been assisted by a State Executive Committee. At the District level, District Disaster Management Authority under the chairmanship of Collector is entrusted for the entire mechanism.

The responsibility of laying down the policies on DM, approving the NPDM and laying down the guidelines on DM has been given to NDMA under the Act. The NDMA accordingly prepared a draft of the NPDM in consultation with the Home Ministry and submitted the same for approval of the Government.

The Home Ministry has circulated the draft NPDM to the concerned Central Ministries and all the State Governments / Union Territories. The comments received by the Central Ministries / State Governments / Union Territories were duly examined and the acceptable views / comments of Central Ministries / State Governments / Union Territories have been duly incorporated in the NPDM. Approval of the cabinet to the NPDM was given in the cabinet meeting on 22.10.2009.

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

4.2 DM ACT – 2005

It is the central legislation on Disaster Management around which all DM related activities revolves since its enactment. It dictates a holistic approach to Disaster Management from responding to disasters to greater attention for prevention, mitigation, capacity building and preparedness.

4.3 DEFINITION OF DISASTER

Disaster is defined as ***"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".***

4.4 DISASTER MANAGEMENT IS EXPLAINED IN THE ACT IS AS UNDER:

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

- Prevention of danger or threat of any disaster.

- Mitigation or reduction of risk of any disaster or its severity or consequences.
- Capacity building
- Preparedness to deal with any disaster.
- Prompt response to any threatening disaster situation.
- Assessing the severity or magnitude of effects of any disaster.
- Evacuation, rescue and relief
- Rehabilitation and reconstruction.

4.5 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) Co-ordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, Governmental and Non-Governmental Organisations in relation to DM.

b) Ensure the integration of measures for prevention of disasters and mitigation by Ministries or Departments of 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 has necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster;

e) Co-operation and assistance to the State Governments, as required by them;

f) Deployment of Naval, Military and Air Forces, other armed forces of the Union or any other Civilian personnel as may be required for the purposes of this Act.

4.6 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 Development Plans and projects, the measures for prevention or mitigation of disasters in accordance with the guidelines laid down by the National Authority;

c) Respond effectively and promptly to any threatening disaster situation or disaster in accordance with the guidelines of the National Authority or the directions of the National Executive Committee in this behalf;

d) Review the enactments administered by it, its policies, rules and regulations, with a view to incorporate therein the provisions necessary for prevention of disasters, mitigation or preparedness;

e) Allocate funds for measures for prevention of disaster, mitigation, capacity building and preparedness;

f) Provide assistance to the National Authority and State Government for
   i. Drawing up mitigation, preparedness and response plans, capacity building, data collection and identification and training of personnel in relation to DM.
   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 DM.

4.7 SECTION – 37

1. Every Ministry or Department of the Government of India shall –

a) Prepare a DM 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 role and responsibilities in relation to preparedness and capacity building to deal with any threatening disaster situation or disaster;

iv. Its role 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 role and responsibilities specifying 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) and (iv)

b) Review and update annually the plan referred to in clause (a);

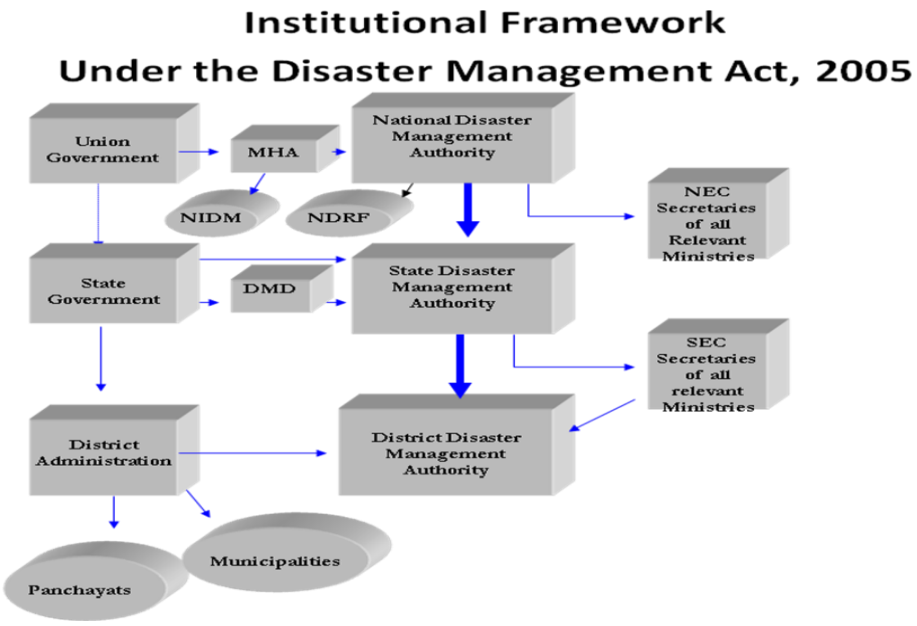
c) Forward a copy of the plan referred to in clause (a) or clause (b), as the case may be, to the Central Government which Government shall forward a copy thereof to the National Authority for its approval.

2. Every Ministry or Department of the Government of India shall –

a) Make, while preparing DM 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.



No Railway official is nominated either in National Executive Committee (NEC) or State Executive Committee (SEC), though they can be co-opted as per need.

4.8 TYPES OF DISASTERS CAUSING INTERRUPTION TO TRAIN SERVICES:

A) HUMAN/EQUIPMENT FAILURE:

The disasters/accidents may be caused by human/equipment failures, which may affect normal movement of train services with loss of human life or property or both. These include:

- Collisions
- Derailments
- Accidents at manned or unmanned level crossings.
- Fire or explosion in trains
- Other accidents affecting the safety of rail operation.

B) NATURAL DISASTERS: Natural disaster in general like floods, cyclones is forecasted; whereas others like earthquakes, landslides etc. are difficult in nature to forecast. But preparedness for floods & cyclone will help in tackling situation for other natural disasters also.

1. Landslide:

- Whenever landslide is expected / experienced due to heavy downpour, all train services to be regulated.
- Rescue team to be rushed for restoration work.

2. Floods:

Based on the weather forecast warnings regarding impending flood condition, the following steps should be taken:

- Watchman at important bridges and at vulnerable points to inform flow of water to be posted.
- Shifting of all movable equipment around the bank.
- If time permits, sandbags, dykes can be constructed to ensure safe passage of trains.
- Regulate the train service till the flood recedes.
- Evacuate people on train / at station and move them to a safer place.
- Contact Fire brigade, Naval, Army, Air force, Local boat man and arrange Divers and boats.
- With the co-ordination of local authorities, arrange temporary shelter in nearby schools, marriage halls, community centres etc.
- If necessary, arrange coaches to accommodate the affected.
- Seek assistance from voluntary organisation and arrange safe drinking water, food, medicines, etc.,
- RPF and GRP in co-ordination with local Police shall arrange protection.
- Keep constant communication with Divisional Control Office.
- When people are marooned by floods, arrange air dropping of food packets, clothes etc., with the assistance of Civil Administration.
- Contact SJAB (St. John Ambulance Brigade), local doctors and provide medical care to the affected.

3. Cyclone / STORM:

When a train is caught in a cyclonic storm at mid section/station:

- Stop the train clear of cuttings, bridges and embankments.
- Guard, Loco-Pilot and other Railway servants on train shall keep open windows and doors of all coaches.
- At stations where Anemometer is installed, shall not start trains when the wind velocity exceeds the permitted level of 65 KMPH. At other stations when the wind velocity exceeds safe limits, SM must consult with Control and GDR of the train before starting.
- Make announcement frequently to warn the public about the storm/cyclone.
- Take all necessary action to provide shelter and other assistance as in the case of floods.

C) PREPAREDNESS FOR NATURAL DISASTER FROM DEPARTMENTS

1. Engineering Department

- Shall identify Risk Zones prone for natural disasters like floods, cyclones or earthquakes with the help of Meteorological Department.
- Shall identify major infrastructures like track, bridges and buildings and such inventory analysed for its strength to withstand such disasters.
- Shall keep sufficient stock of track materials.
- Shall ensure arrangement of essential items like empty bags, sand, dust, cinders etc. ready to be moved to vulnerable locations.
- Intensify Patrolling of track at vulnerable locations.

2. Mechanical Department

- Shall ensure that ARTs, ARMVs are equipped with sufficient tools.

- Staff of proven caliber to be nominated to man ARTs/ARMEs

3. Medical Department

- Shall ensure availability of adequate medicines first and materials, disinfectants etc. at Health Units / Hospitals near the vulnerable places.
- Shall take enough measures to prevent epidemics, in co-ordination with Engineering Department for sanitation and disinfection of drainage and public places.

4. Electrical Department

- Shall ensure availability of standby power (generator) at strategic locations.
- In OHE area, sufficient stock of relief materials shall be kept.
- Tower Wagons with quick mast erection facilities and sufficient spares should be kept ready at Tower Wagon Shed (for electrified section).

5. Telecommunication Department

- Shall ensure proper communication with adequate facilities like Wireless Communication, Satellite phones etc.

6. Transportation Department

- Requirement of essential staff and their deployment shall be assessed by Sr.DOM of respective Divisions.
- SMs of the warned area stations, in co-ordination with assistance respective Departments, shall ensure all station equipments like Generator, Emergency light VHT sets, First Aid equipment etc. are in good condition.
- SMs will also ensure proper securing of stabled coaches / wagons as per extant instructions.
- COM of the Railway will issue instructions regarding regulation, diversion or cancellation of trains in the warned section with information to CPRO.

7. Commercial Department

- Shall alert arrangements to open enquiry offices at areas likely to be affected.
- Shall ensure arrangement for food, water and other requirement at vulnerable places.

8. Security Department

- Alert Security personnel to accompany relief material trains and render assistance at vulnerable stations in handling public enquiries.
- Arrange for crowd control and also prevention of theft.

9. General

- Apart from the above, each PHOD/DRM shall nominate an officer to monitor warned location and order arrangement.
- A monitoring cell shall be formed by all Departments concerned at Divisional and Zonal level to ensure proper co-ordination and planning.

D) ACTION PLAN FOR DIFFERENT EXIGENCIES:

When first tremors are sensed during an Earthquake, all Personnel should evacuate buildings and assemble at safe places away from structures, walls and falling objects.

- Emergency shutdown should to be declared.
- Emergency response plan to be activated.
- After the status is restored, personnel should inspect all the facilities for rescue, assessment of damage, cleanup, restoration and recovery.

(E) MAN MADE DISASTER & POST DISASTER MANAGEMENT:

The following disasters / accidents may be caused by human activities, which may affect the normal movement of train services with loss of life or property or both. Sabotage causing deliberate loss of life/damage to property or both.

- Bomb threat/ blasts.
- Setting fire to Train.
- Tampering with Railway fittings to cause accidents.
- Placing of obstructions on track to cause disruption to traffic

1. Bomb threat/Blast:

Person receiving call regarding bomb threat:

- Should attempt to gain as much information as possible from the caller ID devices, time set, location, reason / purpose of the act, dialect mannerism and identity of the caller.
- The person receiving call should inform higher ups who in turn shall alert the Disaster Management team (Bomb detection squad).
- Also, alert Police, Fire Brigade and Explosive Department.
- Pass the information to all Departments concerned.
- Take initiative for evacuation of all from the premises.
- Person noticing a bomb like object, should bring it to the notice of the nearest available Officer.
- Inform Railway Police, RPF, and Bomb detection squad.
- Ensure all persons are away from the spot and to avoid unnecessary crowding near the area.
- Inform control to take further steps of regulating the train services.
- Wait for clearance from the Police Department to restore normal working.

2. Tampering of Railway fittings causing accidents & Placing of foreign particles on track to cause disruption to traffic

- A staunch vigil should be kept by introduction of special patrolling over the area as and when warranted with assistance of RPF personnel.
- Specially trained persons shall be drafted for duty over the area if required.

3. Radiation Emergency/Personal Injury Involving Radioactive Material Contamination

- Render first aid immediately for serious injuries.
- As far as possible, without causing harm to the victim, monitor the injured and remove contaminated clothing and gross personal contamination.
- Remove and bag all contaminated clothing.
- Call Fire Station, bomb squad, and police.

- Skin contamination should be cleaned using mild soap and warm water. Use portable survey meter to monitor for remaining contamination. If not free of contamination, re-wash and re-survey.

4. What to do upon suspected letter/package receipt

- Call Police/Fire Service/ Bomb Squad.
- Handle with care
- Don't shake or bump
- Isolate and look for indicators
- Don't open, smell, or taste
- Treat it as suspect

If parcel is Open and/or Threat is identified for a Bomb

- Evacuate immediately
- Call Police / Fire Service / Bomb Squad.

*****

CHAPTER V

(PREPAREDNESS)

5.1 DISASTER RESPONSE

A. INSTANT ACTION TEAM – (Loco-Pilot / Assistant Loco-Pilot, Guard & other on-board staff – their duties)

Duties of LP & ALP:

- Ensure loco flasher light is switched 'on'.
- Note down the time, location and weather condition.
- Ensure the formation is secured, protect the train giving priority for protection on adjacent line/s on double and multiple line sections.
- Inform the Guard, nearest SM and SCOR/TPC by using walkie-talkie set/CUG/emergency telephone socket, etc., i.e., in other words make efforts for quickest possible means of communication for transmitting the information.
- Render first-aid and assist Guard in saving the lives.
- Ensure the speedometer memory freeze button is operated duly breaking the glass cover.
- Ensure the important documents such as BPC, VG, caution order and other train passing documents given en-route by the station Operating staff are handed over to the Inspector / Officer who arrives first at the accident site.
- Ensure the important documents / registers are seized from Gate lodge, in case of accidents involving road-users.
- In case of fire related accidents, make use of the fire extinguishers loaded in the locomotives.
- Ensure the clues are not disturbed.
- Do not allow the unaffected wagons / coaches from the site of accident unless they are permitted so by the ART Supervisor or by the C&W official or by conducting GDR check.

Duties of Guard:

- Ensure the LV board / flashing tail lamp is available / properly working during day / night and foggy weather respectively.
- Note down the time, location and weather condition.
- Ensure the formation is in secured position.
- Protect the train in rear and ensure the adjacent line is protected first on double and multiple line section by loco crew.
- Inform the SM and SCOR by the quickest possible means such as walkie talkie set, CUG mobile phone, using the portable control telephone (in case of coaching trains), through nearby LC Gate telephone or IB Signal post telephone, stop the adjacent line trains and convey the information of accident or detach the loco (if, in good condition) and send it to the nearest station, etc.,

- Make a quick survey of the accident site and ask for relief accordingly.
- Render first-aid to the injured passengers and assist / co-ordinate with loco crew in saving the lives, transport the injured to the nearest hospitals/nursing homes/clinics.
- In case of fire related accidents, make use of the fire extinguishers available in the Guard compartment of SLR/LRs.
- Ensure all the clues are preserved.
- Ensure the important documents / registers are seized from Gate lodge, in case of accidents involving road-users.
- Do not allow the unaffected wagons/coaches from the site of accident unless they are permitted so by the ART Supervisor or by the C&W official or by conducting GDR check.

Duties of TTE and Pantry Car staff:

- Avail the services of the doctors and other paramedical staff travelling by the train in rendering first-aid to the injured and in transporting the injured to the nearby hospitals / clinics / nursing homes.
- Render first-aid to the injured passengers.
- Prepare a list with the details of the injured passengers such as name, age, sex, ticket no., along with coach no./ berth no. and contact telephone no., etc.,
- Assist in transporting the injured to the nearby locations where medical facilities are available.
- Co-ordinate with local volunteers and other Railway officials at the site of accident.
- In case of fire related accidents, make use of the fire extinguisher units kept in the AC Coaches, Pantry Cars and at stations.
- Inform the stranded passengers about the cancellation, regulation and diversion of trains as given by Control Organisation.

Duties of AC Mechanics and Coach Attendants:

- Switch ‘off’ the power supply and avoid short circuiting.
- Assist the LP, Guard, TTE or any other Railway official at the site of accident in saving the lives and in transporting the injured to the nearby hospitals.
- Render first-aid to the injured by using the first-aid boxes available with the in-charge of the Pantry Car and from the Guard.
- Make use of the fire extinguishers kept in the AC coaches in cases of fire related accidents.

Duties of Security staff on escorting duty:

- Render first-aid and help in extricating the entrapped passengers.
- Ensure safety and security of the relatives /dependants of injured passengers and also the security of railway property.
- Protect the clues at the site of accident and collect such P.Way material and Rolling stock parts including that of locomotive which would contributed for the accident.
- Protect the bag and baggage of the train passengers.

- Ensure crowd control by providing plastic tape barricades and give warning messages through hand-held loud speakers.
- Assist Civil Police and GRP.

5.2 B. FIRST RESPONDERS –

NEAREST GANGs, SMs and OTHER DEPARTMENTAL OFFICIALS – DUTIES

Duties of Engineering Gang:

- The Gangmate and his team of Trackmen should rush to the accident site immediately.
- Render all possible help to the injured passengers and co-ordinate with other Railway officials in relief and rescue work.

Duties of Gatemen:

- Keep the LC Gate in closed condition, if the train is stopped within the gate portion.
- Exhibit stop hand signal to trains coming on adjacent lines.
- Inform the SM of the station to which the LC Gate is connected.

Duties of Station Masters/Managers:

- Do not allow any train into the affected block section on the same line and also on adjacent line on double line/multiple line sections.
- Inform the SM of the adjacent block station, SCOR, Medical authorities (both Railway and non-Railway) and other Officials / Officers (like SSE/SE/JE-P.Way, SSE/SE/JE-C&W, SSE/SE/JE-Electrical, SSE/SE/JE-Signal and Telecom Department, Security Officials, GRP, CCC, SLI, AEN / ASTE / AO / AM, etc., stationed at the station.
- Mobilise all kinds of medical resources available at the station, i.e., Railway and non-Railway to go to the accident site and to take care of the injured passengers brought to the Civil Hospitals/Nursing Homes/Clinics, etc.,
- Inform the Civil, Revenue, Police, Transport, NGO Organisations, Political dignitaries, fire fighting officials, etc.,
- Seize the registers and records from the station / cabin.
- In case of accident at station, note down the position of points / signals/ block instrument position, BPAC condition, Relay Room position, data logger condition, etc.,
- Co-ordinate in making catering arrangements in consultation and sanctions from Divisional/Zonal Headquarters.
- Ensure that Public Assistance booth is opened and manned continuously with details of dead, injured, locations where they are undergoing treatment, details of cancellation/termination/diversion of trains. The necessary infrastructure required to man the booth also to be arranged.
- Call the ‘off’ duty staff to assist at the station.
- Assist the stranded passengers by arranging catering, transport, medical, shelter arrangements, etc.,

Duties of SSE/SE/JE-P.Way of the section:

- Proceed to the spot immediately.
- Seize the documents from the LP such as BPC, Caution Order, train passing documents, etc.,
- Secure and preserve the gang diary, gang chart, curve register, etc.,
- Assess the accident site and call for the assistance accordingly.
- Assist and co-ordinate with other officials in relief and rescue work.
- Preserve all the clues at the site of accident.
- Prepare the accident sketch.
- Execute other functions as ordered by Officers at the accident site.

Duties of Section TI:

- Proceed to the spot immediately.
- Ensure that no other train is sent into the block section except relief trains.
- In case of accident at station, seize all the relevant station records and registers.
- Seize the important documents from the LP such as BPC, Caution Order, train passing documents, etc.,
- Keep close liaison with Control Organisation and assist in receiving the relief trains at the site. In case of accident at station, assist the SM in receiving, despatching, marshalling the relief trains and noting down the position of signals/points/block instrument/BPAC, etc.,
- Execute other functions as ordered by Officers at the accident site.

5.3 C. DM TEAM – DUTIES AT ACCIDENT SITE

Nominated officials from various Departments arriving at site by MRVs and ARTs form part of the DM 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 shall also ensure that their work is synchronised with that of functionaries of other Departments for quick rescue, relief and restoration operation.

Members of DM Team: Disaster Management team normally comprises members of following Departments.

a. Trained men from Medical, Commercial, Mechanical, Electrical, Engineering, Security, Operating, Safety and S&T Departments.
b. In case of fire related accidents, fire service personnel shall also form part of the team.
c. In case of water-logged accidents, water body, divers and naval cadets will also form part of the team.
d. In case of suspected sabotage or bomb explosion – bomb disposal squads, forensic lab officials (central and / or state) and GRP/local Police authorities shall also form part of the team.
e. Various rescue units shall accompany MRVs, ARTs or move by quickest possible means to site of accident.

Officer in-charge of site (OIC site): On arrival of MRV at the site of accident, DRM of the Division shall take over as OIC site from the senior most officer. DRM will be responsible for forming core groups as required and direct them to carry out efficient rescue, relief and restoration operations.

Rescue, Relief and Restoration operation: DM team on arrival shall undertake the following action;

A. Crowd control and law & order
B. Rescue operation
C. Clearance from State Police for restoration, where required.
D. Relief operations
E. Installation of communication network
F. Video coverage of accident site
G. Preservation of clues and evidences
H. Media management
I. Salvage operation
J. Restoration operation
K. Lighting arrangements
L. Catering facilities, etc.,

Photography and Videography: Prior to restoration work, Divisional authorities shall undertake suitable video coverage of the complete restoration work. Still photographs by digital camera shall also be undertaken extensively. The coverage and photographs shall be taken from a vantage point and from different angles apart from close-ups and Birdseye view filming. Such photographs shall clearly indicate;

a. Severity of the accident
b. Illustrate the damage to P.Way, rolling stock, signal, OHE and other structures and equipment.
c. Victims and unidentified bodies should also be extensively photographed for easy identification, payment of ex-gratia, etc.,

General: For efficient Disaster Management, responsibilities of various Departments are to be executed by deputing responsible Officers and Supervisors. Important duties of such Officers and Supervisors are enlisted below:

a. Ensuring the setting of Unified Command Centre
b. Collecting the information on progress of restoration from OIC site.
c. Take stock of the situation and plan for effective and efficient rescue operation.
d. Estimate the quantum of assistance required from the resources available within the Division, adjoining Divisions, non-Railway agencies and from State/District authorities.
e. Ensure general co-ordination from various Departments.
f. Intimation to District Civil, Revenue, Police authorities.
g. Given prima-facie cause of the accident and probable time of restoration.
h. Total no. of dead, injured with complete details.
i. No. of wagons/coaches involved in the accident, their details and position.
j. Forecast for completion of each activity such as rerailment, track fitness, OHE fit, points and interlocking, clearance of section and movement of first train.

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

1. At the accident site, Officers available from the Division shall be formed into two teams for round the clock working in 2 shifts.
2. PHODs/HODs shall take decision regarding composition of the team for night shift for their respective Department.
3. Supervisors of the Division shall also be divided into two teams by their Controlling Officers.

5.4 D. CO-ORDINATION CENTRES –

Role of Divisional Control, Central Control and Disaster Control:

Divisional Control

1. Stop movements of trains into the affected block section including adjacent line trains on double and multiple line sections.
2. Order MRV and ARTs on either side of the affected section and in case of more casualties order the adjoining Division's relief trains. Also ensure to order and move the crane specials.
3. Allow only relief trains and give top priority to Accident Relief Medical trains and other relief trains. As a rough thumb rule, the scale of assistance required would be one relief train from a Division for every 50 injuries.
4. Inform DRM, ADRM and other Divisional Officers in the following order:
   a. Sr. DSO
   b. Sr.MS/MS (in case of passenger carrying trains)
   c. DRM
   d. ADRM
   e. Sr.DOM
   f. PRO
   g. Sr.DME
   h. Sr. DEN
   i. Sr.DEE
   j. Sr.DSC / DSC
   k. Other Officers
5. Inform SMs at either end of the block section, Central Control, Civil Authorities, State Government officials.
6. Maintain a log of events in chronological order till the complete restoration; including the details of first train passed over the section.
7. Advise Civil, Military, Private hospitals apart from Railway Hospitals to rush medical aid to the site of accident and to be in preparedness to admit the injured passengers.
8. Arrange for despatching the rescue and relief equipment to the site of accident.
9. Inform the NGO Organisations to solicit their help in relief operations.
10. Run the special trains with injured to the originating / destination of trains or as ordered by the Officers.
11. Arrange for running of duplicate trains for clearing stranded passengers as ordered on priority.
12. Arrange for regulating traffic by diverting / cancelling / terminating trains.
13. Advise the stations about the diversions / cancellations and termination of trains.

14. Collect the details of dead and injured and the locations where they are admitted for medical treatment.
15. Liaison with Commercial Department and ensure that information centres are opened at the accident site and at important stations enroute for the benefit of public.
16. Guide the station staff.
17. Do collect the voice logger CD from the S&T Branch for the benefit of the Accident Enquiry Committee.
18. Do pass clear remarks on the chart along with timings about all instructions given to various agencies.

Duties of Central Control

1. As soon as the information about the accident is received from the Divisional Control, inform all the Officers of Headquarters immediately in the order given along with timings and keep a record of the same.
2. Central Control shall inform all concerned at Headquarters office including GM, PHODs, HODs, etc in the following order:-
   a. PCSO
   b. CMD (in case of passenger carrying train accidents)
   c. Secretary to GM
   d. AGM
   e. CPTM
   f. CPRO
   g. Dy.COM/Chg
   h. Dy.CSO/Traffic or Dy.CSO/Ele or Dy.CSO/Mech or Dy.CSO/S&T
   i. PCOM
   j. PCE
   k. PCME
   l. PCEE
   m. PCSC
   n. Other PHODs / HODs

5.5 DUTIES OF OFFICIALS / OFFICERS - MEDICAL DEPARTMENT

On getting emergency call:

- Note down time of receiving message.
- Collect necessary Medical team.
- Inform CMS, other Doctors and staff.
- Alert blood donors, Saint John's Ambulance.
- At least one Doctor to remain in the hospital.
- Move Emergency boxes from ARME-Scale II/Health Unit/Hospital to site.
- Ensure arrival of MRV staff and report its readiness to traffic official.
- Reach the site by road if it is quicker.
- Check all the equipment in MRV while on run.
- Get the operation theatre ready.
- Arrange to inform CMD about the movement of MRV.
- Keep MRV ready to treat the injured without delay.

On reaching the site Medical Officer in charge:

- Refer the list of injured passengers prepared by TTE/TS and assess the situation.
- Plan for efficient Medical Management.
- Ensure rapid access to all injured passengers.
- Take assistance of Mechanical/Engineering/RPF staff and extricate the passengers.
- Conduct a thorough search of coaches including lavatories/vestibules for injured/dead.
- Open the First Aid Post/Clinic and depute a team exclusively to man it.
- Form different groups if required to handle more number of casualties at a time
- Ensure collecting blood and urine samples of Crew of the train/trains in time.
- Ensure the stabilization of condition of injured.
- Ensure expeditious transportation of injured to the MRV/nearby hospitals.
- Take a list of Dead/injured and communicate with the following details.
  - **If found Conscious**: Name, sex, age, identification marks, address, ticket number, originating and destination Station.
  - **If found Unconscious**: Approximate age, sex, identification marks, ticket number and the particulars if relatives and friends are available.
- Ensure covering of bodies with shrouds.
- Arrange to move bodies to Govt. hospital with the assistance of RPF/ Commercial Department.
- Take necessary steps to handle unhygienic condition that may arise due to decomposed/mutilated bodies.
- Certify the injured/dead and inform Site Manager for arranging on the spot ex gratia payment.
- The Medical Officer at Division/Head Quarters shall have constant touch with site; if necessary arrange supplemental Medical assistance.

5.6 DUTIES OF MECHANICAL OFFICIAL/OFFICER

On getting emergency call:

- Collect details about the accident and assess the requirement
- All nominated Break Down special staff shall report to the in charge.
- Ensure marshalling of BD special according to site requirement
- Inform the traffic official about BD special readiness
- Ensure the requirement of Crane/Re-railing equipment and marshal accordingly

On reaching the site:

- The specially trained CRACK TEAM shall extricate the passengers from the affected coaches in co-ordination with the Medical Team.
- For efficient extrication of entrapped passengers take the assistance of Engineering Department/Electrical Department.
- Be cautious in using the rescue tools like cutter, spreader etc.
- If suspected spillage of inflammable substances use only Cold cutting equipment.

- In case of suspected sabotage, to save lives extricate passengers after taking photograph / video graph and ensure minimum interference to clues.
- If necessary ask for supplemental assistance
- Ensure that Speedo graph, engine repair book etc. are seized/sealed.
- Record details of Brake Power and other aspects of Rolling Stock as per the Pro-forma.
- Take joint measurements of the rolling stock
- Note down the observations and measurements of Loco etc. at site if it is not possible arrange for taking the reading at shed.
- Monitor the efficient working of Cranes/Re-railing equipment to clear or re-rail the affected Rolling stock.
- Examine the unaffected/re-railed Rolling stock and certify for further movement.
- Take precautions in electrified section that the power supply is switched off before commencing the rescue/relief work.
- Use necessary safety equipment like Hand gloves, Helmet etc.
- Arrange the trained manpower in shifts for continuous rescue/relief operations.
- Plan for quick restoration of traffic.
- Sr.DME on getting information assess the situation and proceed to site if warranted.
- A responsible Mechanical Officer shall be available in the Control Office and co-ordinate with the site/other department.
- Always ensure the safety of the staff working at the site.
- Assess the damage to the Rolling stock.

5.7 DUTIES OF ENGINEERING OFFICIAL/OFFICER

On getting emergency call:

- Collect details of accident and assess the requirement
- AEN/SSE (P.Way/Works) shall collect men, rescue tools and proceed to site by MRV and assist in the rescue of passengers.
- Keep ready necessary men and material by BD special

On reaching the site:

- Assist Medical/Mechanical Department in rescue work
- Arrange to provide a temporary shelter at site with tents for Medical Clinic, Catering, Stores and for the Site Manager with basic facilities.
- Ensure availability of water supply.
- Ensure preservation of clues as per procedure.
- Provide necessary dummy track for Restoration work/Crane working.
- Plan for quick restoration of traffic.
- If necessary move Gang staff from adjacent unit/Division.
- If necessary under the direction of DRM Contact Army/Navy/Air Base and collect the required personnel like Divers for rescue operation.
- If necessary hire Private Crane, Bulldozers, Earth movers etc.
- One Engineering Officer shall be available in Control office for monitoring and arranging reinforcement of men and material.
- Plan for coordinated working and movement of track machine for quick restoration with TRD official and transportation official.

- Assess the cost of damage to the Engineering Department.

5.8 DUTIES OF SIGNAL & TELECOMMUNICATION OFFICIAL / OFFICER

On getting emergency call:

- Collect details of accident and assess the requirement.
- Arrange to move Satellite phone by available means including road transport to the site.
- Depute one officer to control office to coordinate with accident site, emergency control and other officers.
- Adequate number of mobile phones available with the Divisional staff should also be rushed to site for emergency use.
- Send required number of telecom staff by Accident Relief Train for installation and operation of telecom equipment.

On reaching site:

- Provide portable Telephone / Emergency Telephones at site and man it.
- Install at least two BSNL phones with STD facilities and communicate the contact numbers to all concerned.
- Ensure availability of adequate copies of Disaster Management telephone directory containing important telephone numbers. This directory should be updated once in 3 months by the fault control staff of the Divisional office duly verifying each of the numbers.
- Provide Walkie-talkie set and chargers.
- Provide Railway phone connectivity Emergency Control/ Zonal Headquarters.
- Provide satellite/mobile communication facility
- Wherever feasible provide wireless sets/use services of HAM
- Provide adequate number of Public Address system/Hand sets
- Note the position of levers, knobs, slides, indicators as the case may be, preserve clues- Seal block instruments, relay room etc.
- Restore working of S&T equipment like signal, points etc after getting clearance from the Site in charge.
- Assess the cost of damage to S&T equipment.

5.9 DUTIES OF COMMERCIAL OFFICIAL/OFFICER

On getting the emergency call:

- Collect details of accident and assess requirement for arranging relief to the injured/dead and the stranded passengers as under.
  - Drinking water/Beverages/Food packets etc.
  - Sufficient Labour for transshipment.
  - Sufficient coolie porters.
  - Ticket Collectors.
  - Govt./Private buses.
- The Commercial inspector shall withdraw sufficient amount of money from Station collection under the authorization of Sr.DCM

On reaching the site:

- Provide immediate transport facility to shift the injured to hospitals;

- Collect details of injured/dead and convey them to Emergency Counters;
  - Supply the following free of cost;
  - Free telegrams to the relatives of dead and injured;
  - Complimentary passes with the assistance of Personnel Inspector;
- Arrange ex-gratia payment on the spot to the injured and next of kin of dead;
- Assist Medical Department;
- Protect the luggage/belongings of injured/dead with the assistance of RPF;
- Protect luggage, parcels and goods;
- Arrange transportation of the stranded passengers, record the details of passengers dispatched and relay the particulars to Control;
- For information to general public;
  - Open information counters for giving information to public regarding the names of injured, dead etc.,
  - List of dead and injured to be displayed at a prominent place at station / important stations;
  - Make announcement through PA system on diversion of trains, regulations, and probable time of arrival of relief train;
- Arrange refund of fare through special counters;
- One Commercial Officer in Control Office shall coordinate with site and arrange supplemental assistance;
- Take care of the Media personnel:

5.10 DUTIES OF ELECTRICAL OFFICIALS/OFFICERS

- Provide lighting arrangements at site.
- Provide sufficient number of portable generators.
- Arrange supply from nearby sources if possible.

5.11 TRD OFFICIAL

- Move OHE staff to site.
- Switch off OHE supply to enable safe rescue work.
- Clear OHE obstruction by slewing the wires for restoration.
- Ensure the section is earthed before the staff working near OHE.
- Ensure the preservation of clues as per procedure.
- Ensure early restoration.
- Ensure temporary portals are erected without delay.

5.12 TPC

- Where an EMU or Electrical Loco is involved arrange for relief Loco/Train if required.
- Send Sr. Supervisor to the site immediately with adequate shed/break down staff.
- Ensure that records of maintenance of Loco/EMU and repair books are seized and sealed.
- One Electrical Officer of respective branch in Control Office shall co-ordinate with site and arrange for supplemental assistance.

5.13 DUTIES OF SECURITY STAFF

On getting emergency call:

- Collect details of accident and assess the requirement.
- Collect maximum manpower and proceed to site.
- Inform nearby outpost for additional manpower.

Security department while sending men to the spot necessary equipment as listed below shall be carried:

- Torches/lighting arrangements.
- Nylon ropes/poles to control crowd.
- Loud Hailer for making announcements.
- Stretcher and First Aid equipment.
- Wireless sets/ Walkie-Talkies for communication.
- Camera including Video camera.

On arrival at site:

- Rescue passengers and assist Medical/Mechanical Department.
- Cordon the site and prevent unauthorized entry of outsides.
- Protect the luggage and belongings of stranded/injured/dead
- Provide barricade and ask for additional force to control crowd during VIP visits.
- Obtain assistance of GRP/Local Police.
- Protect the Railway consignments/goods till it is properly handed over.
- In case of sabotage liaise with the officers of various departments, GRP, Local Police and officials of civil administration and get early clearance.
- Inform the development at the site to higher officials every hour.
- An RPF assistance booth to be opened if the operation continues for longer period.
- Preserve clues and evidences, take photograph/videograph etc.
- Care shall be taken to post staff at stations to avoid agitations from passengers due to delay/regulation/cancellation of trains.
- Ensure proper documentation about the number of persons injured/dead giving their identity and address if available.
- Arrange to guide the friends and relatives of injured/deceased.
- Maintain the log of events.

5.14 DUTIES OF CPRO/PRO

- On getting the information proceed to the Emergency Control Room.
- Collect the details on real time basis from the Emergency Control.
- Only the reliable details as confirmed by the Site Manager are to be given to the Print/Visual Media.

5.15 DUTIES OF PERSONAL INSPECTORS/OFFICERS

- DPO shall direct an Officer/Inspector to site
- Such officials like welfare Inspectors shall be available round the clock in shift to look after the welfare of the injured persons in hospitals.
- Issue pass to the relatives and escort the injured to hospital and back home if required.

- Assist Doctors in collecting details of injured/dead and shifting them to hospitals.
- Convey such information as required by Sr.DCM.

5.16 DUTIES OF DIVISIONAL ACCOUNTS OFFICER

In case of serious accident an assistant officer shall be available in the control office and coordinate with the commercial officers in respect of payment of ex-gratia/other expenditures in the accident spot.

5.17 DUTIES OF DIVISIONAL SAFETY OFFICER

- Proceed to the site of accident by the first available means.
- Ensure the clues are preserved and video/still photos are taken as needed.
- Ensure that the front and the rear portions are cleared from the site.
- Ensure that joint measurements/ observations are recorded in the prescribed Pro-forma.
- Ensure that the evidence of the train staff, station staff and public are recorded on the spot.
- Addresses of the passengers willing to give statements later should also be obtained.
- Ensure proper co-ordination among all departments for efficient Rescue, Relief and Restoration work.

5.18 DUTIES OF DIVISIONAL OPERATIONS MANAGER

Immediately after getting the information:

- Ensure that the medical relief van, Breakdown Specials are ordered, moved and reach the spot without any detention.
- Ensure the marshalling of the crane if needed while proceeding to the accident
- spot.
- Inform Collector and other civil authorities with details.
- Open an Emergency Disaster Co-ordination Unit in the Control Office
- Plan for regulation of Passenger/Express trains, cancellation, diversion, and termination short of destination in consultation with the Headquarters in time.
- Ensure efficient movement of relief train, engine, tower wagon etc., between the site and the station for quick restoration in consultation with the Disaster Manager available at the site.
- Ensure prompt transport of stranded passengers at the site and clearance of passengers held up at other stations in coordination with the commercial department.
- Assist Commercial Department in arranging relief to the victims.
- Check the information of passengers dead, injured verified with the Railway
- Keep liaison with adjacent divisions, Headquarters and the site.
- Ensure proper logging of all the events by control office and at site.

5.19 DUTIES OF DIVISIONAL RAILWAY MANAGER

On being informed about the accident,

- Collect details of accident and assess the situation.

- If necessary proceed to the site.
- **Inform the CRS/SC Circle about the accidents falling under Section 113 of Railways Act.**
- Give clear directions to Officers in connection with rescue and relief work.
- Depute ADRM as in charge in Control office.
- Order to keep a vehicle ready for immediate use at Control Office.
- Arrange to advise the Home Secretary/ Chief Secretary or other officers of the state in case of sabotage for prompt attendance of the Superintendent of Police.
- Monitor that each department renders prompt assistance.
- Arrange for collection of clues/ evidence.
- Appoint a reporter in case of serious accident.
- Ensure taking joint observation / readings by Supervisors.

5.20 ROLE OF OFFICERS DEPARTMENT-WISE IN DISASTER MANAGEMENT CONTROL ROOM

1. On getting information from the Central Control, nominated Officers should be present in the Disaster Management Control Room, II Floor, Railnilayam, Secunderabad for getting further information about the accident.
2. As per the need, the DMCR will be manned with Officers for co-coordinating relief works under overall Supervision of COM.

Safety Department:

The Officer/s representing Safety Department shall report the accident to Railway Board. **Apart from DRM of the Division, CSO will inform the CRS/SC Circle.** The Safety Branch Officer shall collect the information of the accident as per the pro-forma and inform the Safety Directorate / Railway Board. Continuous monitoring of relief, rescue and restoration details shall be done and the updated information shall be informed to Safety Directorate from time to time. The Safety Branch shall also co-ordinate with other Departments.

Medical Department:

The Officer/s representing Medical Department shall obtain complete details related to the dead and injured passengers involved in the accident and shall maintain liaison with the Accident site and doctors of District/State Government Hospitals, Private and Corporate Hospitals. They shall also consolidate the list of injured and dead in minimum time and the same shall be faxed/informed to the Officials in DMCR.

Commercial Department:

The Commercial Department Officer/s shall ensure catering arrangements to the passengers at the site of accident, passengers travelling in trains which are terminated / regulated / diverted en-route. They shall also ensure the catering arrangements to the staff working at the site of accident and in DMCR. They shall ensure payment of ex-gratia to the dead / injured as per the rules and instructions. Arrange for transshipment of goods wherever required, arrange transport, collect the information details about the dead and injured. They shall also ensure transmission of information regarding the dead and injured to originating, destinating stations, to

DMCR, etc., They shall also arrange for opening of emergency booths at various locations.

Operating Department:

The Operating Department Officer/s shall manage relief and restoration operations at Headquarters level. He shall record all events related to the accident chronologically. He shall ensure regulation, diversion and termination/cancellation of trains keeping in view the likely time of restoration. They shall ensure that the passenger carrying trains are regulated at such stations where minimum catering arrangements including drinking water is available. They shall monitor the ordering and movement of MRV/ART/140T Crane relief trains of the Division, Railway and adjoining Railways.

Mechanical Department:

The Officer/s representing Mechanical Department shall assess the requirement of additional Medical Vans / BD Specials and shall liaison with adjoining Railway / Division for ordering the same. He shall also monitor the movement of all Relief trains. He shall obtain the details of rolling stock involved in the accident and its PRO particulars. They shall obtain the restoration details and record the handling of each and every vehicle including locomotive. They shall also obtain the bio-data of the crew involved train/s.

Engineering Department:

The Officer/s representing Engineering Department shall obtain the details of damage to P.Way and also ensure movement of Engineering Materials. Details of track structure and other relevant details such as USFD, last inspection, profile of track, index plan details shall be obtained. Organise ordering of labour specials and material specials as per the requirement at site from within the zone / adjoining zones.

Electrical Department:

Officer/s representing Electrical Department shall obtain the details of extent of damage to OHE and loco/s. He shall also obtain the bio-data of crew of the involved train/s. Assess the requirement of material and organise for the movement of the same. Also order and monitor the movement of Tower Cars to the site of accident.

S&T Department:

The Officer/s representing S&T Department shall ensure efficient communication system is established and also ensure continuous manning of phone/s from accident site to DMCR and vice-versa. One line should be dedicated for the emergency transmission from the site of accident to Divisional Control and from Divisional Control to DMCR. Also shall ensure installation of BSNL public phone at the site of accident involving passenger carrying train/s. They shall obtain the details of S&T gears involved, if any in the accident. Also arrange to get a copy of the data-logger output in the form of CD, voice-logger output from the Control Office in the form of CD.

Liaison with Railway Board:

DMCR shall maintain constant liaison with the Safety Cell of Safety Directorate, Railway Board and give the details of the following:

a. Movement of Relief trains.

b. Movement of men and material from adjoining Divisions/Railways to the site of accident as rescue, relief and restoration measure.
c. Assistance required from the District, State Government authorities, Armed Forces, Para-military forces, voluntary Organisations, etc., and convey the same to Railway Board.
d. Progress of rescue and restoration operations.
e. Prima-facie cause as given by the Division.

****

CHAPTER VI

6.1 RESOURCE UNIT – 1 (PASSENGER TRAIN, AT SURROUNDINGS, AT ADJOINING STATIONS)

6.1.1 ON PASSENGER CARRYING TRAINS FOLLOWING RESOURCES ARE AVAILABLE:

1. First-aid box available with the Guard of the train.
2. Portable Control Telephone available as BV Equipment and as personal / loco equipment with the LP of passenger carrying trains.
3. Fire extinguishers loaded as BV Equipment, loco equipment, in AC Coaches in Pantry Cars, etc.,
4. Walkie talkie sets with LP and Guard.
5. CUG mobiles phones with LP, ALP and Guard.
6. Information about the doctors travelling in the train on the reservation chart.
7. Information about Railway officials in the train whether 'on' duty or 'off' duty as per the reservation chart.
8. Passengers travelling who volunteer to help in rescue and relief operations.

6.1.2 NON-RAILWAY RESOURCES AVAILABLE NEARBY:

1. Volunteers from nearby villages and towns.
2. NGO Organisations stationed nearby towns and villages.
3. Transport vehicles passing through the nearby Level Crossings (both manned and unmanned), owned by Contractors (Railway and Civil) and Private and Public transport vehicles located nearby villages and towns.
4. Tractors with trolleys or without trolleys for transporting both men and material apart from loading the lighting equipment to lit up the site of accident.
5. Station staff at either end of the block section shall mobilise all possible medical assistance for treating the injured and transport for transporting the injured to the nearby hospitals. Mobilise the non-Railway resources stationed at the station in co-ordination with the Civil Authorities.
6. Moving the relief trains to the site of accident in the stipulated timeframe.
7. Informing the 'all-concerned' through the quickest possible means of communication.
8. Station staff shall give priority for arranging medical succor, mobilising additional manpower, moving the rescue equipment, arranging lighting equipment of accident site, arranging transport, informing the fire fighting personnel, etc.,
9. Resources as mentioned in the Divisional DM Plan.

6.1.3 RAILWAY RESOURCES:

1. Mobilise the Engineering gangs stationed at the station, in the Division and from adjoining Divisions, if required; OHE staff and S&T staff to be alerted and moved to the site of accident as per the directions given from time to time.
2. Mobilise the Railway Medical staff and arrange medical facility to the site.
3. Arrange Communication network at the station and as well as at the site of accident.

4. Security officials to be informed and moved to the site of accident.
5. Railway resources as mentioned in the Divisional DM Plan.

6.2 RESOURCE UNIT – 2 (ART & MRT – SOUTH CENTRAL RAILWAY)

ACCIDENT RELIEF TRAINS AND RELIEF MEDICAL VANS ON SCR					
DIVN	**CLASS"A" ART (5 BG + 1 MG)**	**140 T CRANE**	**CLASS "B" ART**	**ARMV SCALE – I (ARMV)**	**ARME SCALE – II**
SC	SC **(SPART)**	**SC**	….	SC **(SPMRV)**	BPA
	KZJ**(SPART)**	**KZJ**	…	KZJ **(SPMRV)**	DKJ
			BPA	---	PRLI
					VKB
HYB			NZB	NZB **(SPMRV)**	MBNR
BZA	BZA **(SPART)**	**BZA**	…	BZA**(SPMRV)**	GDR
			RJY	RJY**(SPMRV)**	OGL
			BTTR	BTTR**(SPMRV)**	EE
					TUNI
					BVRM
GTL	GY	**GY**	GTL	GTL**(SPMRV)**	HX
			RU	RU	RC
			DMM	DMM	NRE
					MPL
					KDY
GNT			GNT	GNT **(SPMRV)**	NDKD
					NDL
NED	PAU	**PAU**	--	PAU **(SPMRV)**	J KNVT

6.3 RESOURCE UNIT – 3 (ART & MRT OF ADJOINING ZONES)
SOUTHERN RAILWAY – CHENNAI DIVISION

S.No.	Type of ART / MRV	Location	Class
1	SPART	Madras (MAS)	….
2	ART	Tondiarpet (TNP)	'A'
3	ART	Basin Bridge (BBQ)	'B'
4	ART	Jolatpet Junction (JTJ)	'B'
5	ARMV	Jolarpet Junction (JTJ)	Scale - I

CENTRAL RAILWAY – BHUSAVAL DIVISION

S.No.	Type of ART/ MRV	Location	Class
1	ART	Bhusaval (BSL)	'A'
2	ART	Manmad (MMR	'B'
3	ARMV	Bhusaval (BSL)	Scale – I

NAGPUR DIVISION

S.No.	Type of ART / MRV	Location	Class
1	140/T	Ajni (AJNI)	
2	SPARMV	Nagpur (NGP)	Scale – I

SHOLAPUR DIVISION

S.No.	Type of ART / MRV	Location	Class
1	140/T	Daund (DD)	
2	ARMV	Sholapur (SUR)	Scale – I
3	ARMV	Wadi (WADI)	Scale – I
4	ART	Wadi (WADI)	'B'

South Western Railway – HUBLI DIVISION

S.No.	Type of ART / MRV	Location	Class
1	ART & 140T	UBL	'A'
2	ART	CLR	'B'
3	MRV	UBL	Scale – I

BANGALORE DIVISION

S.No.	Type of ART / MRV	Location	Class
1	ART & 140T	SBC	'A'
2	MRV	SBC	Scale – I

East Coast Railway – WALTAIR DIVISION

S.No.	Type of ART / MRV	Location	Class
1	ART & 120T	VSKP	'A'
2	ARME	VSKP	Scale – I
3	ARME	KRPU	Scale-I
4	ART	KRPU	'B'
5	ART & 120 T	KRDL	'A'
6	ART & 120 T	RGDA	'A'

****

CHAPTER VII

VARIOUS PHASES OF DISASTER MANAGEMENT

7.1 Phase I – GOLDEN HOUR

In the period immediately after the accident where grievous injuries to passengers takes places, action has to be taken on war-footing by the Railway Authorities to render definite medical care which gives relief to affecter passengers ad also help 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 reduce drastically, even with the best of medical attention thereafter. This initial one hour period is generally known as "The Golden Hour".

- ✓ Render definite medical care within Golden Hour.
- ✓ Arrest bleeding and restore blood pressure within an hour.
- ✓ Persons under shock shall immediately be relieved of shock.
- ✓ Transport the casualties to the nearest hospital.

During this Golden Hour, following efforts should be made:

1. On-board staff like, LP/ALP/Guard/TTE/GRP/RPF/Pantry Car/AC Coach Attendants, etc., shall pass on the information quickly to the nearest station or to control about the accident. They shall render first-aid and take the help of other volunteers travelling by train or from the site of accident location to rescue the passengers.
2. Senior-most officer travelling by the train whether 'on' or 'off' duty shall take charge as Officer in-charge (OIC) at site.
3. All Railways officials shall report to the Guard and work as per the directions of the OIC.
4. SMs of the adjoining stations must inform Control about the accident and the nature of assistance required.

7.2 Phase II – ARRIVAL OF CRACK TEAM

(A) Crack Team of Zonal Railway with rail rescue experts and equipment should be rushed to the site of accident by any transport which is quicker, if required even by air-lifting.

(B) Divisional Crack Team consisting of representatives from Mechanical, Medical, Electrical, Engineering, Security and S&T Departments shall be rushed to the site of accident by the most expeditious means of transport feasible.

(C) Functions of Crack Team: As soon as hooters / siren are sounded, the nominated team shall proceed to the site of accident by first available train or by road. The Crack Team shall carry the following kits;

   i. S&T kit
   ii. Lighting kit
   iii. Augmented First-aid kit or POMKA
   iv. Rescue kit, etc.,

(D) On reaching the site of accident, the Crack Team shall perform the following activities:

i. Extrication / removal of injured passengers from the coach/es.
ii. Rendering first-aid to the injured.
iii. Provide succor and help to the passengers at site.
iv. Relieve panic and create sense of confidence among the passengers.

(E) **Special Disaster Management Team of RPF**: Special DM Team of RPF has to be set up at all Divisional Headquarters for proceeding to the site of accident and assist in relief and restoration at the site of accident. They shall reach to the accident site by the first available means of transport.

7.3 Phase III – ARRIVAL OF RELIEF TRAIN/S

Phase III begins with the arrival of relief train/s. The senior most officer who reaches the site first becomes the OIC at site. The staff and Officers should work as per the directions of the OIC at site.

Site Organization:

- Medical relief camp
- Security of luggage
- Preservation of clues
- Relief, rescue and restoration
- Co-ordination with Civil and Media
- Liaison with Control
- Communication network
- Lighting arrangement
- Information booth
- Catering arrangements
- Evacuation of passengers
- Payment of ex-gratia, etc.,

The Medical team reaching the site first shall comprise more doctors and staff including paramedical staff. The senior most doctor and OIC at site should have all details about dead and injured and hospitals where they are being treated.

7.4 Special Task Teams of different Departments

I.	**Medical**	Relief and transportation of the injured to hospitals.
II.	**Commercial**	Catering, payment of ex-gratia, information booth, liaison with Civil Administration and Media.
III.	**RPF**	Security of luggage, parcels and other Railway property.
IV.	**Operating**	Liaison with control and arranging logistics including Shunting operations.
V.	**S&T**	Establishment of communication network, free telephones and booth.
VI.	**Mechanical**	Rescue, relief and restoration operations including re-railment, measurements,

		photography/videography of clues and restoration activities and preservation of clues.
VII.	**Electrical**	Adequate lighting arrangements at the site of accident.
VIII.	**Civil Engg.**	Provision of tents, relief, rescue and restoration activities. Restoration of track, preserving the clues, readings photography/videography of clues and restoration activities.
IX.	**Safety**	Preservation of clues, statement of witnesses, photography/videography of clues and restoration activities.
X.	**Personal**	Passenger care

Armbands: Rescue team members must wear armbands and luminous jackets. Armbands for medical and paramedical staff shall bear a red cross.

Cold-cutting: Extreme care must be exercised while tackling damaged coaches. Cold cutting equipments should be used on coaches containing passengers so as to avoid burns to passengers.

7.5 Handling of dead / injured:

- Dead bodies should be handled with care and respect.
- Cover the dead bodies with white shrouds and they should also be numbered.
- Expeditious issue of death certificates.
- List of dead and injured shall be passed on to Divisional Control and DMCR at Zonal Headquarters from time to time.
- A photographer shall take coloured photographs of dead and injured.

7.6 Free food, drinking water, tea and snacks:

Food and clean drinking water must be rushed to the accident site from the nearest source. Free food and beverages shall be arranged.

7.7 Action to be taken at Divisional-level:

- Opening and continuous manning of enquiry booths at originating, terminating and at en-route major stations.
- Furnishing updated position of dead, injured and evacuated passengers to 'all-concerned'.
- Helpline number shall be relayed through electronic and print media.
- Arrangements for issue of free Railway passes to relatives / friends / dependants of dead and injured.
- Make arrangement for transportation of evacuated passengers to be sent to destinations. Transport vehicles can be hired.
- In case of major disaster, DRM of the Division can requisition for the services of Helicopter / Aeroplane.
- Media shall be briefed properly and quickly.
- Zonal headquarters should be advised quickly.

7.8 Phase IV – HANDLING INJURED PASSENGERS:

- Relief trains clearing the injured and stranded passengers must get overriding priority.
- Road vehicles shall be arranged for transporting the injured and stranded to the nearby hospitals and station.
- List of injured, hospital-wise shall be conveyed to all concerned and displayed at prominent locations.
- Ex-gratia payment shall be arranged.

7.9 Phase V – RESTORATION OF TRAFFIC

Restoration of traffic should be planned and acted upon without affecting the relief operations. Restoration of passenger services gives a sense of normalcy, besides providing means of transport to relatives and friends/dependants of victims to visit them and attend to them.

7.10 CONCEPT OF CONTROLLING STATION:

The SM of nominated controlling station should, immediately on receiving information of an accident, reach the site with sufficient staff drawn from all Departments. He shall take necessary steps for rescue and relief. It should be made clear to everybody that staff of all Departments must follow the directions of the Station Manager of the controlling station and render all possible assistance necessary for tackling the disaster.

Division	Controlling stations	Division	Controlling stations
SC	SC, BG, KZJ, RDM, BPA, SKZR, WL, KMT, DKJ, BDCR, VKB, TDU, MQR, BIDR, PRLI	**GNT**	GNT, RAL, MRGA, NDKD, MCLA, DKD, MRK, NRT, NDL.
HYB	KCG, MBNR, KRNT, MED, KMC, NZB	**GTL**	GTL, GY, ATP, KLU, DMM, MPL, PAK, CTO, TPTY, RU, KHT, NRE, HX, TDP, AD, RC, YG.
BZA	BZA, EE, TDD, RJY, SLO, COA, TUNI, TNKU, BVRM, NS, GDV, MTM, TEL, CLX, OGL, BTTR, NLR, GDR	**NED**	NED, MUE, KNVT, ADB, PAU, PBN, GNH, J, AWB, HNL, AK, KNW.

****

CHAPTER VIII
(AUTOMATIC TRIGGER MECHANISM)

8.1 ACCIDENT SIREN

Long Range Electric Siren:

As a means of giving immediate warning to the staff of various Departments, in the event of an accident, a Long Range Electric Siren has been installed at those stations where the relief trains are stationed. In addition to this, the siren provision is kept at Diesel / Electric Loco Sheds, DRM Offices.

NOTE:

1. **Vide Railway Board Letter No.2010/Safety/(DM)/6/23 New Delhi dated 16.09.2013** advised that system of sounding Hooter from Control Office should be implemented in all Divisional Control Offices in Indian Railways.
2. On SCR, as a means of giving immediate warning to the staff of various departments connected to ART&MRV, in the event of an accident, it is being remotely operated from the Divisional Control Office.

Each siren is provided with

1. A delayed action switch (the tumbler switch marked 'Accident Warning') and
2. A check switch (marked 'Test Push')
   a. The delayed action switch (the tumbler switch marked "Accident Warning') is designed to give call of ¾ minute duration, each with ½ minute interval between two successive calls.
   b. The check switch (marked 'Test Push') is for checking whether the siren and motor are in good working order. For testing the siren the push button of the check switch shall be pressed and kept in the ON position until the siren gives a continuous blast extending to not less than 30 seconds and then released.
   c. If, for any reason, the delayed action switch fails to function, the emergency call shall be given by manually operating the check switch to give calls. Description of accident and the number of hooters to be sounded are as follows.

Sl. No	Description of the Accident	Siren code
1.	Accident at the Station / Loco Shed where the ART/MRT is stationed	**Two long**
2.	Accident at out station and mainline is clear	**Three long**
4.	Accident at out station, mainline is clear and MRT is required	**Three long – one short**
5.	Accident at out station and through running is affected	**Four long**
6.	Accident at out station, through running is affected and MRT is required	**Four long – one short**

NOTE: The duration of the long hooter shall be 45 Seconds and 10 seconds for the short, with 30 seconds interval between two successive calls.

d. Both the delayed action switch and the check switch are provided with locking arrangements. The key of the delayed action switch and the duplicate key of the check switch shall be kept in a sealed glass fronted case. The original key of the check switch shall be kept by the electrical staff. In case of emergency the seal or glass shall be broken and the key taken out to give the emergency call. After the emergency is over and the key restored to the box, arrangements shall be made to replace the broken glass and/or to reseal the box.

e. The check switch shall be operated by the Electrical Department once a month.

(i) On hearing the emergency call the staff nominated to turn out for such calls by the respective Heads of Departments shall do so and take up the positions and duties allotted to them. The staff concerned shall respond to the call with alacrity. Indifference in responding or failure to respond to the call must be dealt with seriously.

(ii) At stations where long range electric sirens have been installed, staff nominated to turn out for such calls by the Head of Department shall take up positions with the portable emergency wireless set to proceed to the accident spot by the first available means.

8.2 SOUNDING OF ENGINE WHISTLE/HOOTER/STATION BELL:

In the event of the long-range electric siren going out of order, the emergency call must be given as indicated below-

a. The whistle/hooter of engine shall be sounded as coded above, so as to give whistles/hooting or call of 1 minute duration each, with ½ minute interval between two successive whistle/hooting this being repeated twice at an interval of 3 minutes.

b. In case an engine is not available at the time to give the emergency call, the emergency call shall be given by the violent ringing of station bell. The Station Master or the senior official of the Transportation (Traffic) Department, present at the station shall arrange and be responsible for the issue of the emergency call.

****

CHAPTER IX

MEASURES ADOPTED FOR PREVENTION AND MITIGATION OF DISASTERS

9.1 CIVIL ENGINEERING DEPARTMENT:

Role of Engineering Department in responding to threatening disaster situation or disaster: A constant liaison is maintained with all the IMDs for getting information about the weather warning and cyclone storm. Whenever, there is a warning of a severe cyclonic storm, the following action is taken;

a) Intensifying of monsoon patrolling and night surprise inspection.
b) Posting of Watchman at vulnerable bridges/locations. Posting of special Watchman with walkie-talkie, mobile phone at RATs where message about them being under danger of overflowing/bursting is received to monitor their condition on real time basis.
c) Officials of Engineering Department are located at locations as incorporated in the joint Engineering & Operating circular.
d) Monsoon emergency reserve stock is kept in readiness at nominated locations according to sanctioned scales. This emergency reserve stock on wheels will be moved as per the directives of engineering officials at Headquarters monitoring the situation.
e) The following engineering officials of BZA division shall proceed and be available at stations indicated below:
    i) Sr.DEN/South at BTTR.
    ii) Sr.DEN/Central/BZA at BPP.
    iii) DEN/E/BZA at BVRM
    iv) Sr.DEN/North at SLO
    v) Sr.DEN/Co-ord/GNT at GNT
    vi) CGE shall proceed to BZA depending on the severity of the situation at his discretion.
f) A constant liaison with Central Water Commission authorities during monsoon period to keep track of the real time water level of major reservoirs and dams to take timely action during emergency.
g) The emergency material such as diesel oil, K.oil, torches, hurricane lanterns, tarpaulins, gum boots, umbrella, rain coat, manila rope, shovels, etc., track materials are kept in readiness to meet any eventualities.

9.2 ELECTRICAL DEPARTMENT:

Measures taken for the prevention or mitigation of disasters/accidents:

- No crew is being allowed to work the train with over due in G&SR & Technical Refresher Courses and Periodical Medical Examination (PME).
- Knowledge of crew is being updated from time to time especially in safety aspects and G&SR rules.
- Alertness of crew is being checked by surprise inspections by Loco Inspectors especially during night times.

- Regular Safety Seminars and interaction with running staff are being conducted to educate/update their knowledge duly guiding in all safety/technical related aspects.
- Regular training is being conducted on in-motion simulator to update knowledge/driving skills of Loco-Pilots.
- All Electric Locos are equipped with auto-flasher lights with high prominence LED flasher lights.
- Vigilance Control Device and emergency stop is being provided in all electric locos.
- All locos are equipped with Energy-cum-Speed Monitoring System which record the important events also.
- Crew-friendly cab modification on electric locos is being carried out during POH.

9.3 SIGNAL & TELECOM DEPARTMENT:

Measures taken for prevention or mitigation of disasters/accidents:

i. Signaling

Provision of track circuiting and BPAC: Provision of BPAC on entire route 'A' shall be completed over SCR within March 2009. Works on the other routes shall be progressively proposed and carried out. As per old route classification, complete yard track circuiting was completed over route "A' and 'B'. Works are sanctioned for track circuiting (balance portion) on route 'D' which shall be completed with March 2010. Over route 'E', the balance works shall be progressively proposed and carried out. However, track circuiting on Mainline (FM-FM, FM-BSL and HM-FM-St) is already complete over the entire passenger traffic carrying BG network.

ii. Communication:

In addition to the communication network specified under Chapter VI of existing Disaster Management Plan, the following may be supplemented.

a. Provision of FCTs at accident site.
b. Provision of WLL exchange as additional means of communication at accident site.

iii. IRPMU is executing the work of provision of video conferencing from accident site to zonal headquarters along with high-speed satellite modem.

9.4 SECURITY DEPARTMENT:

Specified measures taken for the prevention of mitigation of the same:

- Collection of sharing of advance intelligence with central intelligence agencies and State Police.
- Sensitising of railway employees in the field especially, in public interacting areas.
- Involving active license porters and contractors of cycle/scooter stands in identification of suspects.
- Posting of RPF staff at vulnerable areas.
- Rescue teams of RPF should be in readiness to reach the spot at a short interval duly equipped with modern gadgets in the event of any eventualities.
- Dog squad to be pressed into service by first means.
- Random track patrolling, provision of firefighting equipment, etc.,

- The trains in the vulnerable sections should be escorted by RPF and GRP, besides conducting anti-sabotage checks in the trains and at all important stations by deploying sniffer dogs.
- Sabotage-prone areas/sections have been identified and joint track patrolling by RPF & Engineering staff has been introduced.
- Modern surveillance cameras are installed at important railway stations to monitor the movements of suspected elements.
- The concept of community policing has been introduced all over the zone from 01.02.2007, with the title 'Sahyog'. Under this scheme, representatives of daily commuters, vendors, hawkers, porters, TTEs, Guards, loco-Pilots, ASM/SMs and GRP are associated to educate and create security awareness among the passengers to elicit information and to use them as partners in the mission to make railways a crime-free area.
- "RPF Mithra Yojana" has been introduced involving NGOs, Lions/Rotary Clubs to get useful information/intelligence pertaining to railway security.

Mitigation measures should be integrated with the development of the plan and projects:

- In times of disasters, the integrated efforts should be taken to keep the rescue teams in alertness.
- Setting up of Disaster Management Cells at all important stations for immediate reaching spot for carrying rescue operations.
- Whenever any new project is taken up, basic security measures should be ensured in consultation with Security Department.
- Provision of Security Department staff and equipment must be planned along with other department's staff and equipments right at the planning stage.

****

CHAPTER X
PASSENGER CARE

10.1 GENERAL:

1. Providing assistance to passengers and their relatives / dependants is of utmost importance in helping them relieve their misery.
2. Injured passengers and their relatives are to be treated with utmost courtesy and sympathy so as to alleviate their trauma and discomfort.
3. For dealing with the relatives and dependants arriving from far flung corners of the country, staff fluent in local language of the place from where the train originated should be used as interpreters.
4. Commercial Supervisors and Welfare Inspectors should talk to injured passengers and ascertain if they wish to call their relatives / dependants.
5. Injured passengers should either be provided with a mobile phone/s or STD phones to enable them to speak to their relatives and dependants.
6. Transshipment of unaffected passengers and their clearance from the accident site would be arranged quickly. The officer available in the Control Office shall arrange the transshipment on priority.
7. In rescue operations, top priority shall be given to all passengers in critical condition for immediate medical attention.
8. Dead bodies should be extricated and the ARMV in-charge and other officials present at the site of accident should act swiftly and arrange for shifting of the dead bodies after shifting the injured passengers to nearby hospitals.

10.2 HOSPITALISATION OF THE INJURED:

1. As a general policy, in case of railway accidents involving passengers, rapid evacuation of victims to railway/non-railway hospitals after rendering immediate and necessary first-aid treatment is of paramount importance.
2. In the following cases, the injured may be taken to a private hospital:

a. When there is no Railway / Government Hospital available within a radius of **8 KMs** from the site of accident.

b. When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient's survival.

c. Except where Railway doctor certifies, such injured passenger/s should normally be eligible to the class of accommodation in the private hospital where different scales are available.

d. Where the family of the injured passenger desires to be provided with a higher-class accommodation, the family should be give in writing to pay the extra cost involved directly to hospital authorities.

3. For this purpose, the Division should chalk out a working arrangement with such private hospitals as may be necessary in areas served by them, so that in case of emergencies, injury cases can be referred to hospitals concerned without loss of time.
4. To facilitate matters and to avoid misunderstanding, CMD should draw a list of such private hospitals bearing in mind the Railway and other Government hospitals in the vicinity.
5. CMD should also fix the charges to be paid in such asses for each class of accommodation. Complete medical care will be taken of all injured passengers, including payment of medical bills till their final discharge from hospitals. Claims compensation booklets containing forms and other instructions will be distributed to all injured passengers and next of kin of all deceased passengers.
6. Bills by such private hospitals should be submitted through CMD who shall certify the correctness of charges payable before forwarding for payment to FA&CAO.
7. Under this para, payment to private hospitals can be arranged locally by the Railway and ministry of Railways approval is not necessary.
8. If the injured are admitted in non-Railway hospitals, railway doctors should be deputed to these hospitals to render necessary assistance including supplying the medicines that are not available in these hospitals.
9. They should carefully monitor the condition of injured and maintain an updated list with all details.
10. If more than one hospital is involved, apart from deputing doctors to individual hospitals, a railway doctor should also be deputed to co-ordinate and maintains the centralised updated position.

10.3 FACILITIES TO BE MADE AVAILABLE IN THE HOSPITAL:

1. There shall be a separate reception counter manned by a Commercial Supervisor or by a Welfare Inspector at the entry to the hospital to deal with relatives / dependants of the injured passengers.
2. A chart shall be displayed at this reception counter indicating ward and bed numbers where the injured passenger/s are admitted along with their names, coach no. etc.,
3. At the entry to every ward, a second list should display the name of the patient, coach number and bed number inside the ward.
4. Commercial staff and Welfare inspectors on duty at that hospital should carry a list indicating the name, address and telephone numbers of relatives /dependants as given by the patient; and whether they have been informed or not.
5. Arrangements should be made to inform the next of kin or friend of the deceased incase of identity of the person involved in accident becomes known.
6. As each relative arrives, his name should be marked in the list against the passenger’s name.

7. Reception counter should be provided with STD telephone facility and some minimum infrastructure.
8. There should be minimum two mobile phones readily available to be taken to patients inside the wards for making outgoing calls.
9. Complete medical care of all passengers including payment of medical bills till their final discharge shall be ensured.

10.5 COMMUNICATION:

1. Telephone with STD facility shall be made available to passengers to communicate with their relatives / dependants.
2. BSNL / Railway telephones available at adjoining stations / cabins / towns shall be extended to the accident site.
3. PCO telephones and other BSNL telephones in nearby localities / towns / villages shall also be extended to the accident site by persuading owners of such phones.
4. Payments for such telephone connections will be made from station earnings.
5. Sr. DSTE shall hire some mobile phones to meet the needs of stranded passengers.
6. Wherever cellular phone connectivity is available, stranded passengers should be permitted to use these phones free of charge.

10.6 ARRIVAL OF RELATIVES / FRIENDS / DEPENDANTS:

1. After a few hours, the kin of the deceased and relatives / friends / dependants of injured passengers will start arriving to the site of accident, hence adequate number of display boards with the details of dead and injured be displayed at the site of accident by the Commercial / Personal / Medical Officials.
2. Some display boards should indicate the direction of the Assistance Centre at the site of accident.
3. Periodic announcements on loudspeakers shall also be made for guiding them to the Assistance Centre at the site of accident.

10.7 TAKING CARE OF RELATIVES / DEPENDANTS:

1. At the Assistance Centre, Commercial and Welfare Inspectors should be available to guide the relatives / friends / dependants. They should go through the reservation charts and list out the dead and injured among them.
2. They shall also depute a railway servant to accompany the relatives / friends / dependants to the hospital, if possible.
3. A hired vehicle shall also be provided for carrying them to various hospitals and mortuary.
4. The Commercial / Welfare Inspector should stay with the relatives / friends / dependants until they have found the injured or identified the dead.
5. Thereafter, they should help them in completing all formalities at the Assistance Centre.

10.8 SINGLE WINDOW CLEARANCE:

1. Assistance Centre at the site should provide single window clearance for all legal formalities and paperwork.
2. It should provide the following facilities:
   - **a.** Reservation chart for locating the name.
   - **b.** List of dead and injured including the name of the hospital where the injured are sent for treatment.
   - **c.** Vehicle to take the relatives / friends / dependants to various hospitals and mortuary.
   - **d.** Railway doctor for issue of death certificate.
   - **e.** Government doctor for issue of post mortem clearance.
   - **f.** Municipality official for issue of death certificate based on the doctor's certificate.
   - **g.** Local Police for handing over the dead body.
   - **h.** Claim counter for payment of ex-gratia and issue of claim compensation form.
   - **i.** Counter to help in performing last rites in case it is decided to cremate the dead body there itself.
   - **j.** Pass counter for issue of return journey pass.
   - **k.** Return journey facilitation counter to make arrangements for return journey.

10.9 ACCOMMODATION FOR RELATIVES / FRIENDS / DEPENDANTS OF DEAD AND INJURED:

1. Commercial Supervisor or Welfare Inspector deputed shall arrange for the stay and accommodation of relatives / friends / dependants of dead and injured.
2. Depending upon the need, accommodation in hotels / Railway guest houses or retiring rooms should be booked for accommodating passengers.
3. Catering ARRANGEMENTS should also to be taken care.

10.10 PERFORMING LAST RITUALS:

1. In many cases, the relatives / friends / dependants prefer to perform the last rites at the place where accident took place. Hence, assistance should be rendered in locating the following:
   a. The nearest cremation / burial ground.
   b. Crematorium facility where available.
   c. The location where the required material available including the pundit/priest.
   d. Vehicle for carrying the dead body, etc.,
2. The above information should be conveyed to the relatives / friends / dependants of passengers who died in the train accident.
3. Commercial Supervisor or Welfare Inspector shall help them in this Endeavour.

10.11 DEPARTURE OF RELATIVES / FRIENDS / DEPENDANTS OF DEAD AND INJURED:

1. Assistance Centre at site should have counters to help the relatives / friends / dependants for planning their return journey.
2. Personal Branch staff at the Assistance Centre at accident site should be available for issuing complimentary passes for their return journey.
3. Reservation of berths shall be provided on trains.
4. Extra coaches should be attached to trains going to the destination station for the next two or three days. These extra coaches should be brought in locked condition from the originating station.
5. Space should be reserved in SLRs for loading dead bodies in coffins, etc., in case they desire so.

10.12 GUIDELINES FOR COMMERCIAL DEPARTMENT AT THE SITE OF ACCIDENT TO DEAL WITH THE AFFECTED PASSENGERS:

1. Ex-gratia payment:

The amount of ex-gratia payable to bonafide passengers involved in **train accidents** is as under:

a) In case of death	Rs.**50, 000/-**
b) In case of grievous injury	Rs.**25, 000/-**
c) In case of simple injury	Rs. **5,000/-**

Note: This ex-gratia payment will be exclusively for passengers who are grievously injured in train accidents or untoward incidents as defines under Section 123 of Railways Act, 1989 and stay in hospital as indoor patients. This ex-gratia is payable for a maximum period of 13 months. The period of treatment as indoor patient for more than 30 days need to be certified by a Railway doctor for the purpose of further ex-gratia payment upto the period of 13 months. In case where the injured is taking treatment in other than Railway hospital, the treatment has to be certified by Railway doctor. Sr.DMO shall also keep track of such injured person taking treatment in other than Railway hospitals. Sr.DCM/DCM shall keep co-ordination with Sr.DMO for the purpose and arrange payment of ex-gratia every week at the doorstep of injured person. Every care shall be taken by Sr.DCM/DCM to avoid any inconvenience to injured person in such cases.

The amount of ex-gratia relief admissible to road-user who meet with an accident due to Railways prima facie liability at manned level crossings would be as follows:

a) In case of death	Rs. **50,000/-**
b) Serious injury	Rs. **25,000/-**
c) Simple injury	Rs. **5,000/-**

Ex-gratia payment should also be made to Railway servant killed or injured while on duty by a moving train. For example, Trackmen working on track run over accidentally by a moving train.

The withdrawal of money from station earnings for making ex-gratia payments is permissible. Allocation of ex-gratia payments is **G – 1502 – other compensation (Demand No.9)**.

The amount required for making ex-gratia payments should be drawn on the authority of **station pay orders Form No. Com. 480/B/A/Rev.55.**

DRM and Sr.DCM/DCM have the powers to grant ex-gratia monetary relief in so far as their Divisions are concerned. In case of an emergency, the DRM may nominate a Sr. Scale Officer, who is on the spot on any occasion to make ex-gratia payment in any particular accident.

2. Meal charges: Cash payment of Rs. 60/- per head per day.

3. Withdrawal from station earnings:

a. Money can be withdrawn from station earnings with personal sanction of a Senior Scale Officer.

b. Station pay order (withdrawal from station earnings) should be duly signed with official designation, indicating his name.

c. Proof of payment on whom it has been made and the reason for payment should be kept with payee having revenue stamp.

d. The accountal should be submitted to Accounts Officer within 15 days from the date of withdrawal (**Para 2425 of IRCM)**.

4. Station earnings can be utilized for:

a) Departmental expenditure necessitated by floods, accidents and earthquakes, etc.,

b) Handling charges for transshipments due to accidents.

c) Cost of transportation of sick and wounded persons to hospitals, when ambulances are not available at wayside / small stations.

d) Payment of expenses of special catering – when the imprest is exhausted in emergent cases only with the authorisation of an officer.

e) Refund of fare on unused and partially used tickets.

f) Ex-gratia payment to the persons involved in train accidents.

g) Payment not exceeding Rs. 100/- in each case for shrouds to cover dead bodies of victims of accident on railway. The voucher required to be submitted along with counter signature of GRP Official.

h) Payment to licensed porters for carrying injured / dead bodies.

5. Free meal, water and tea snacks to affected passengers, injured, uninjured or stranded: (Railway Board letter No. 69/Safety-I/4/3 dated 22.9.1989)

****

CHAPTER XI

HOSPITAL MANAGEMENT DM PLAN AND MEDICAL PREPAREDNESS

11.1 BRIEF

South Central Railway has got a well established Central Hospital at Lallaguda at Secunderabad, Divisional Railway Hospitals, at Vijayawada, Guntur, Guntakal and Nanded apart from Railway Health Units at various locations with sophisticated equipments.

11.2 FORMULATION OF HOSPITAL DM PLAN

The Hospital DM Plan will come into effect whenever the competent authority GM or AGM or CSO declares the incident as disaster or come into effect if any Central Government or State Government declares a major disaster and when medical facilities of Railways is asked for assistance.

This plan comes into effect when there is a mass casualty resulting from mass casualty events occurred away from the Hospital or in situation when hospital itself has been affected by a disaster like fire, explosion, floods or earthquake.

11.3 GOALS IN CASE OF MASS CASUALTY EVENT AWAY FROM HOSPITAL – NOT AFFECTING THE HOSPITAL

1. To control a large number of patients and the resulting problems in an organised manner.
2. To enhance the capacities of admission and treatment.
3. By treating patients based on rules of individual management, despite their being a greater number of patients.
4. By ensuring proper ongoing treatment for all patients who were already present in the hospital.
5. By smooth handling of all additional task caused by such an incident.
6. To provide medication, medical consultations, infusion, dressing materials and any other necessary medical equipments.

11.4 GOALS IN CASE OF MASS CASUALTY EVENT AWAY FROM HOSPITAL – AFFECTING THE HOSPITAL ITSELF

To protect life environment and property inside the hospital from further damage.

- By putting into effect the preparedness measures.
- By appropriate action of the staff who have to know this task in such a situation.
- To re-establish as quickly as possible and in an orderly situation enabling the hospital to return to normal working condition.

11.5 CONTINGENCY PLAN FOR THE INJURED

The injured patients belonging to the same emergencies are categorized as under for rendering assistance in an organized manner.

Category "A": Patients in critical condition – **coded Red.**

Category "B": Patients in serious condition but not life threatening condition – **coded Yellow.**

Category "C": Patients who can walk but had undergone minor wounds – **coded Green.**

Based on this injury categorisation, we shall classify the contingency plan into three categories:

Category "A": This plan is put into practice when number of expected injured patients belonging to single accident is less than 05. In this plan there is no disruption to the normal and routine work of the Central Hospital.

Category "B": This plan is put into practice when number of expected injured patients belonging to single accident is 05 – 10. In this plan there is minor disruption of the day to day functioning of the hospital with some re-adjustments like postponement of routine surgeries, procedures and check up camps, health education programmes, etc., discharging of stable improving patients, utilising beds in special wards, semi-special wards, post-operative wards, sick sister wards, etc., To call back doctors and Group 'C' and 'B' staff from rest or 'off' duty.

Category "C": This plan is put into practice when number of expected injured patients belonging to single accident is more than 10. In this plan there is disruption of routine works, there will be only general OPDs functioning. There will be no specialist OPD till the situation improves, postponement of all routine surgeries, procedures and check up camps, health education programmes, etc., discharging of stable improving patients, utilising beds in special wards, semi-special wards, post-operative wards, sick sister wards, etc., The corridors of the wards, present conference hall and some empty rooms are converted into temporary wards to call back all doctors and Group 'C' and 'B' staff from rest or 'off' duty and if required call back from leave. Pharmacy, Laboratories, Stores, X-Ray Room, Operation Theatres will function for 24 hours till situation improves, will stop admitting non-emergent patients.

There may be change in the contingency plan as per situation requirement by Medical Incident Command.

11.6 Hospital DM Plan

1. The Medical Command Authority will be CMD / CHD / CMS / Sr.MS - Admn. / Senior most doctor available.
2. The Control Central location will be MD's chamber / Sr.MS-Admn / Duty doctor's room.
3. There is a plan to have hospital siren system which will give information regarding type of contingency plan in action or type of event like WMD events.
4. After the incident, the duty doctor in consultation with medical command authority should make arrangements for blowing hospital siren. After blowing the siren, the Nursing Staff and Group 'D' for alternative ward should come to casualty immediately. After hearing the sire, all the doctors and staff who are 'on' duty or 'off' duty should come to casualty at the earliest (within 15 to 20 minutes). Duty Pharmacist should inform all the other doctors and designated staff specially CMD,

CHD, Sr.MS and all specialist doctors, Chief Matron and Ward Matrons, OT staff, ICCU staff, Chief Pharmacist, staff of surgical and medical stores, staff of laboratory, staff of X-ray unit, staff of kitchen, etc., One medical team shall move to accident site whenever required by MRV / Road Ambulance and remaining staff will stay back in hospital and prepare themselves to receive the injured persons and render all necessary treatment.

5. The Reception and Triage will be in Casualty where patients are received and initial treatment will be given in casualty male OPD, Medical OPD, Skin OPD after examining the patient. Minor OT will be used for minor operations or immediate emergency procedures and major dressings will be done. Minor dressings will be done in Dressing Room. Dialysis Room can be utilised for treating immediate emergencies and resuscitations. The patient will be colour coded according to the kind of treatment they require.
6. Red – immediate resuscitation.
7. Yellow – patients life threatening injury.
8. Green – walking wounded.
9. Black – dead.
10. Additional medicine, dressing materials, suturing materials will be kept for the purpose. A dedicated disaster store will be commissioned in casualty or nearby.
11. After initial treatment and resuscitation in casualty, patient will be shifted to ICCU, OT or wards as per the condition of the patient.
12. Necessary operations, procedure or resuscitation will be done in OTs, ICCU and Wards. For this visiting specialist and on call specialists are called wherever required.
13. When number of cases coming to hospital is beyond the capacity of the Central Hospital or when requires some specialised care, the cases will be referred referral hospitals like Yashoda, Care, KIMs, Apollo, Kamineni, NIMS, etc.,
14. Necessary extra registers and paper will be kept in casualty and all other areas for proper documentation and medico-legal registration.
15. Kitchen staff will provide food and refreshment to new patients and also medical staff as per the need.
16. Hospital Ambulance and other ambulances of nearby hospitals are used for shifting cases from accident site to Hospital/s; may be Railway or referral.
17. List of hospitals having ambulance facilities and their phone numbers shall be kept in the casualty.
18. Communication network shall be provided with Railway, BSNL, hospital intercom, CUG and walkie-talkie.
19. RPF and Civil Police should be called for security purposes.
20. Dead bodies after examination by the doctors shall be shifted to mortuary after noting all details including photography/videography of the dead. Shift mortuary shed will be erected if dead bodies are more in number. Later the bodies will be handed over to Civil Police for post-mortem.
21. Decontamination of patients will be done in casualty or within the compound in case of chemical and radiological cases.

22. Family welfare room and dormitory can be utilised for patient's relatives / friends / dependants and non-wounded victims who are waiting and family welfare staff can help in this regard.
23. Personal protection equipments and detection devices are required during handling of patients of WMD events like Radiological, Chemical and Biological events which will be procured at the earliest.
24. Media briefing shall be done in CMD or CHD's or Sr.MS chamber.
25. In any case Central Hospital, Lallaguda, Secunderabad shall be involved in the event of shifting the patients to other Railway premises like Rail Kalyan, Railway institute/s, Officer's club, etc.,

11.7 HOSPITAL DISASTER COMMITTEE

For implementing the Hospital DM Plan, a Hospital Disaster Committee shall be formed with members such as CMD, CHD, Dy.CMD, Sr.MS, specialist doctors, in-charge doctors of all OPDs including casualties apart from other medical / para-medical staff as decided by the medical authorities. Regular meeting/s shall be conducted at least once in a quarter. Regular revision of Hospital DM Plan shall be done along with DM Plan of the Zonal Railway.

11.8 STAFF EDUCATION AND TRAINING

1. Training of all staff involved in Hospital DM Plan will be done by conducting refresher courses, disaster drills, table top drills, partial evacuation / non-evacuation drills.
2. Doctors and related staff shall be trained in management of WMD events / CBRN disasters.
3. Training of doctors and hospital staff will be done as per NDMA's guidelines.
4. Help from NDRF, Arakkonam and Pune shall be taken for training.

11.9 OBJECTIVES AND GOALS OF HOSPITAL DM PLAN

1. The main objective of Hospital DM Plan is to optimally prepare the staff and institutional resources of the hospital for effective performance in difference disaster situations.
2. The Hospital DM Plan shall address not only the mass casualties which may result from MCE that has occurred away from the hospital but should also address the situations where hospital itself has been effected by a disaster like fire, explosion, floods, earthquakes, etc.,
3. In the NDMA's guidelines on medical preparedness and MCE, duties had been specified for hospitals. There is need to lay down a system that there should be sharing of facilities amongst hospital in big cities which have a number of them.
4. Some of them may be earmarked as 'Super Speciality / multi-speciality hospitals'. Others as general hospitals to treat general casualties.
5. The Railway Hospitals need not be in the category of a 'Super Speciality / multi-speciality hospital' as they do not have specialized expertise for specific diseases.

****

CHAPTER XII

OTHER DISASTERS, CHEMICAL DISASTERS, BIOLOGICAL DISASTERS, WATER-LOGGED RAIL DISASTERS

12.1 FIRE AND FIRE FIGHTING

"**Fire instills in the human mind an elemental fear harking back to mankind's primeval origin. Our dormant animal instincts arouse awe if not an unreasonable fear of fire. Fire on train particularly in the running train is the most difficult of the accidents to investigate since by their very nature, destroy the evidence."**

Fire on a running train is more dangerous than a static one, because the fanning effect spreads the fire very quickly to other coaches and in panic the passengers may jump out of running train. Under such situation, every Railway servant available on train or at site shall immediately stop the train and plunge into action to save the lives and property. In this context, the Railway servants are expected to have a basic knowledge on fire and fire fighting methods.

12.2 FOLLOWING SOURCES OF IGNITION ARE THE CAUSES OF FIRE:-

- Carrying Stoves, sigris, Gas cylinders, Kerosene oil, Petrol fireworks etc. in passenger compartments;
- Making fire/using fire near paper, wood, petrol or such inflammable articles;
- Lighted match sticks, cigarette butts carelessly thrown;
- Short circuit in electrical wirings.
- Using naked flame for sealing of inflammable & other wagons, delivery of token to the LP/ALP, Shunting of inflammable loads etc.
- Use of open fire, smoking near gas/ petrol tank.

Everyone should take all possible precautions to keep away from doing the above acts so that possibility of breaking out of fire can be minimised.

12.3 GROWTH AND SPREAD OF FIRE

In general, fire originates in a small level. When it is surrounded by burning materials with adequate supply of oxygen (air) fire spreads.

12.4 CONVECTION

Transmission of heat by movement of air and gases produced, to the surrounded materials: To prevent this stop air supply.

12.5 RADIATION

Objects in the surroundings of the fire are exposed directly to the flame, to prevent isolate fire from its surroundings.

12.6 CONDUCTION

Conducting materials in contact with combustible materials will cause a fire.

12.7 THREE MAIN METHODS TO BE ADOPTED TO EXTINGUISH FIRE

(a) **STARVATION -** means removing combustible substances away from the Fire.
(b) **SMOTHERING -** means prevention of Oxygen, access of fresh air in fire, using sand, foam etc to cover fire, which cuts Oxygen supply.
(c) **COOLING -** means reducing the degree of the temperature with water

IF FIRE BREAKS OUT IMMEDIATELY SUMMON THE FIRE BRIGADE

12.8 IN THE EVENT OF A VEHICLE ON A TRAIN BEING ON FIRE

- Stop the train immediately.
- Do not panic.
- Evacuate the passengers from the burning coaches.
- Protect property, valuables & mails.
- Locate the fire extinguishing substances viz. water bucket with water/sand, fire extinguishers etc;
- Ascertain the type of fire viz. dry, oil gaseous, electric and use the right type of extinguishers;
- Use the fire extinguisher if any and put out the fire.
- Use water from the coaches and extinguish the fire.
- Isolate the burning vehicle from other vehicle by uncoupling.
- Train to be protected by Driver and Guard at both ends according to the provision of GR 6.03.
- Report it to the nearest station/control/fire station.
- Every effort shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
- Throw Earth or sand, if available on the fire.
- In case of the fire is discovered when the train is near the tank or a watering station, 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.
- Inform all concerned to assist in extinguishing the fire;
- In case of fire from electricity, switch off the source;

12.9 IN THE EVENT OF FIRE ON AN ELECTRIC ENGINE / EMU

- The Loco Pilot shall immediately switch off the circuit and lower the pantograph. The train shall then be brought to a stop at once.
- After disconnecting the electric supply to the affected circuits, the Driver shall take necessary action to put out the fire.
- If fire cannot be extinguished by the above means the Loco Pilot shall advice the Traction Power Controller through the emergency telephone to arrange the affected section of the over-head equipment to be made dead.
- The Guard and any other staff available shall render all possible assistance to the Loco Pilot in putting out the fire.
- Ordinary fire extinguishers or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment. If the services of the fire

brigade are required, the brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire has been made dead.

12.10 IN THE EVENT OF A FIRE ON A DMU STOCK

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

12.11 WHEN A PERSON IS ON FIRE

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

12.12 FIRE CAUSED BY PETROL OR ANY OTHER INFLAMMABLE LIQUIDS, ACIDS OR GASES

- Segregate the affected wagon, coach or area involved.
- On opening a wagon do not enter it immediately to thus, avoid fumes, which may be dangerous.
- Use foam type fire extinguishers and sand. Water or soda acid type fire extinguishers must not be used at all.
- Do not bring naked lights near the site of fire.
- Warn the people living in the surrounding one Km radius.
- Stay away from ends of tanks, as tanks normally burst from the ends.
- Cool tanks that are exposed to flames with water from the sides only after the fire is put out.
- Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
- Inform the nearest Railway or Civil Fire Stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases.

12.13 InCase Of Fire/Accident Due To Explosives/Inflammables/Dangerous Goods Etc.,

- Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
- Following steps may be taken if no undue risk is involved:

  a. Move unheated Cylinders to a safe place after ensuring closure of valves.

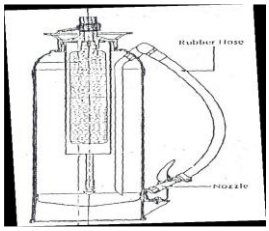
b. Cool the Hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.

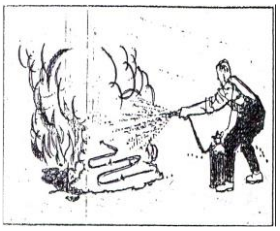
- If the cylinder containing inflammable/toxic gas which develops leak during transport remove it to an isolated at an open place away from any source of ignition and advise the filler or consigner as required.
- Inform the Chief Controller of Explosives by fax/telephone.
- Inform Officer in charge of nearest police station.
- Inform Departmental Officers concerned.
- Pending the visit of the Chief Controller of Explosives/his representatives, the wreckages and debris shall be left undisturbed except to save lives.
- After getting information from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.

If you smell gas or vapour, hold a wet cloth loosely over your nose and mouth and breathe through it in as normal a fashion as possible.

12.14 DRY CHEMICAL POWDER TYPE FIRE EXISTINGUSIHER (DCP)

These types are suitable for tackling petroleum,. Gas, electrical fire and controlling fires in textile fibres. Sodium based chemical powder is used on a fire which undergo chemical reaction.





How to use

12.15 HOW TO USE

1. Carry to the place of fire and keep it up right.
2. Remove the safety clip.
3. Strike the knob located in the cap.
4. Sealing disk of the cartridge is broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.
5. Direct the steam of the powder at the base of the flame.
6. For effective result stand at about 1.5 to 2.5 m. near the seat of the fire.
7. Move forward with moving the nozzle rapidly from side to side in sweeping motion.

When using on outdoor fires operate from the up wind side of the wind for effective spray.

12.16 CHEMICAL DISASTERS

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.

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

Above chapters 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) area dealt in bulk on the railways whereas other classes of dangerous goods are dealt in piecemeal/small quantities in parcel vans/SLRs. Railways may refer to the specific paras pertaining to all these classes of dangerous goods. However, important relevant details of the popular classes (II, III and VIII) of dangerous goods are detailed as under:

12.17 LIQUID PETROLEUM GAS (LPG)

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 15^0C). 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 that of water and 100 times 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 410^0C.
- 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 -15^0C to 0^0C).
- 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 of 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 merceptan to impart a foul odour resembling that of rotten eggs.

Note: A wagon which was loaded with LPG earlier and is in "empty" condition, 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.

12.18 A. 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

1. Nearest Railway Authority, Oil Company and fire brigade to be informed. Directions should be obtained from Divisional C&W Controller.
2. 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.

3. Lanterns or signal lamps should be kept on side from which wind is blowing and as high as possible. Locomotives should be kept away from site.
4. Personnel should keep to the windward side of the leakage.
5. Spectators should be kept away and instructed not to smoke.
6. Earth should be spread over the surface on which LPG has leaked.
7. 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.
8. 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 Eduction 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 – 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.

9. Leaky wagon should be removed to an open area if so advised by control.
10. Arrange for sufficient quantity of water and activate the existing fire-fighting system to handle any emergency.

C. DOs

- 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.

D. 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 eduction 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.

F. TACKLING LPG WAGON DERAILMENTS / ACCIDENTS

- Explosive meter 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.

12.19 AMMONIA

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

1. 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.
2. Explosive Limit (Flammable limit) – 15% to 28%
3. 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.
4. 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.
5. It has a boiling point of –33.3°C and specific gravity of 0.77.

A. PRECAUTIONS TO BE OBSERVED FOR LEAKY AMMONIA TANK WAGONS

1. Nearest Railway Authority, Fertilizer Company and fire brigade to be informed. Directions should be obtained from Divisional C&W Controller.
2. The pungent odour of ammonia gives warning of its presence well before dangerous concentrations are achieved.
3. 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.
4. 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.
5. 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 – 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.

6. Physical damage to barrel – immediately isolate the tank and notify all concerned.
7. 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.

B. 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.

C. 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.

D. 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 peen 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 upto 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:

A. DISSOLVED GASES

- Acetylene (compressed into porous substances)

B. COMPRESSED GASES

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

C. LIQUIFIED GASES

Ammonia (Anhydrous)*		Carbondioxide (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 & CO2, 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.

D. 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.

E. 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.

F. 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.

G. 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.

H. MODES OF TRANSPORT

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

I. STOWAGE & CARRIAGE

Stowage 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.

J. 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.

CLASS – III (PETROLEUM & OTHER INFLAMMABLE LIQUIDS)

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

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

A. 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.

B. STORAGE

i) 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.

ii) 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.

C. 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.

a) The total quantity in the brake van of any one train at any one time shall not exceed 50 litres.

b) Petroleum and other inflammable liquids shall not be conveyed in the same carriage with any matches or fuses or appliances producing ignition, or any explosives or other dangerous goods.

c) Packages containing petroleum and other inflammable liquids shall be carried only in the rear brake van which shall be well ventilated.

d) 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.

D. 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.

E. 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

(b) 4 percent in the case of some important items like

Aviation spirit
Petrol
Naptha

(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.

F. 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.

G. 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 III of Red Tariff No.20.

H. 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.

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.

a. 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.

b. Handling and Storage

(i) 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.

(ii) Handling of Packages

(1) 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.

(2) 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.
(3) Whenever practicable, packages containing acids and other corrosives shall be carried or conveyed on trolley or hand barrows.
(4) Acids and other corrosives not to be stored or handled with or near explosives or other dangerous goods or articles of inflammable nature.
(5) Acids and other corrosives not to be stored or handled with or near foodstuffs or foodstuffs empties.
(6) 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.

c. 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.

d. 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.

e. Precautions to be taken while loading tank wagons

(i) Tank wagons used for the conveyance of acids and other corrosives shall be in good condition and free from leakage.
(i) In filling tank wagons, an air space of not less than 5% of the capacity of the tank shall be left.
(ii) All inlets and outlets shall be securely closed subject to provision of vents where required.

f. Stowing in wagons

(i) Packages containing acids and other corrosives should be compactly loaded so that they do not shift during transit.
(ii) 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.
(iii) Drums containing acids and other corrosives shall as far as possible be loaded on end.
(iv) 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.

f. 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.

h. Precautions to be taken during shunting

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

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

Stationary Storage of Dangerous Goods

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

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

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.

1220 BIOLOGICAL DISASTERS

A. Epidemics & contagious diseases

An epidemic is defined as the occurrence of an illness or other health-related event that is clearly in excess of unexpected occurrence. A disease epidemic or outbreak is the occurrence of cases of a particular disease in excess of the expected, therefore, demanding that emergency control measures be implemented. The threat of communicable disease outbreaks is greater after a disaster than in non-emergency situations, particularly when large populations have been displaced. However, an epidemic or outbreak will only occur if the equilibrium between the population's susceptibility (host or reservoir), the virulence of the infectious agent (bacteria, viruses, parasites or fungi or their products) and the environment that promotes the exposure is upset.

The onset of an epidemic can be either rapid or sudden and this depends on several factors. An epidemic can be anticipated by the rise in number of people suffering from a particular disease. In some cases an epidemic can be anticipated or predicted by an increase in the vector breading sites or in the death of the disease carriers.

The main cause for an epidemic is the pathogen (virus, bacteria, protozoa or rarely fungi). Reports of outbreaks of communicable diseases are increasing in number and reported in many of the national dailies. This is because of a number of reasons like poor sanitary conditions, contamination of food and water, conducive environmental conditions for breeding of the vector etc. Other factors include the seasonal changes that favour the breeding of an insect vector such as mosquitoes, flies etc. in the rainy season, exposure of non-immune persons like tourists and migrants. Poverty is one of the major factors contributing to the vulnerability.

Epidemics cause illness and death. There are other secondary effects such as disruption in the society and economic losses. Vulnerability is high among those who are poorly nourished, people living in unhygienic conditions, poor water supply, individuals who do not have an access to the health services or those who have weak immune systems. The outbreak of an epidemic in situations where already a natural calamity has struck will cause life-threatening situations.

B. Mitigation measures

- **Structuring the health services** is important to have clear understanding of roles and responsibilities of the public health system. Organizational preparedness and the coordination mechanism is required right from the Railway medical units with State and District to the sub centre level which is manned by the village health nurses or the health workers.
- **Contingency Plan** for response should be prepared after identifying the epidemics that are likely to occur in the region. Early warning system through a surveillance system is the primary requirement so as to have an effective response and prevent any outbreaks. For this, surveillance needs to be carried out at a regular basis through the routine surveillance system by involving the health tier system. Maps of all the health facilities in each division with an inventory of drugs and vaccines, laboratory set ups, list of of doctors and supporting staff etc. needs to be kept ready and updated at regular intervals.
- **Training** need to be given to so as to build the capacity at all levels. Training will help to cope better during the emergency response period for epidemics.
- **Personnel protection** through vaccination is an effective mitigation strategy and will protect the persons at risk.

****

CHAPTER XIII

NATURAL CALAMITIES LIKE CYCLONE, EARTHQUAKE, FLOODS AND LANDSLIDES, ETC.,

13.1 MANAGEMENT OF CYCLONES

13.1.1 National Cyclone Risk Mitigation Project:

The National Cyclone Risk Mitigation Project (NCRMP) to be implemented with financial assistance from the World Bank, is envisaged to have four major components:

Component 'A': Improvement of early earning dissemination system by strengthening the Last Mile connectivity (LMC) of cyclone warnings and advisories. Railways need to obtain advance warnings from the system developed.

Component 'B': Cyclone risk mitigation investments. On the Railways alone the high risk coastal rail infrastructure lengths, a similar protection needs to be planned where required.

Component 'C': Technical assistance for hazard risk management and capacity building, where required on the railway infrastructure.

Component 'D': Project management and institutional support by advance coordination by the Sr.DEN/PCEs of the Divisions and Zonal Railways is essential to be able to obtain it at short notice.

13.1.2 Coordination by Railways regarding cyclones risk management, advance warnings and mitigation:

The Zonal Railways in the high risk zone of cyclones (four states – Tamilnadu, AndhraPradesh, Odisha and West Bengal), one UT (Puducherry) on the east coast; and one state on the West Coast (Gujarat) have to be in close coordination with the respective Government Departments for handling all phases of the cyclones. These include;

- Cyclone risk mitigation investments on rail track, colonies in the vicinity of high risk area.
- Capacity building on rail tracks / bridges and important rail installations both for reducing devastation from a cyclone and for relief, restoration, etc.,
- Advance warning of a cyclone. Action for regulation mainly of passenger trains follows thereafter.

The Railway infrastructure is located in the vulnerable states in part either in a densely populated area or alternately where no significant population exists. While in the former case, the resources of the District / State Government would also be concentrated for rescue / relief / mitigation, in the latter case the Railways would have to depend mostly on their own resources for restoration of railway track.

13.2 MANAGEMENT OF EARTHQUAKES:

13.2.1 EARTHQUAKE RISK IN INDIA:

India's high earthquake risk and vulnerability is evident from the fact that about 59% of land area could face moderate to severe earthquake. During the period 1990 to 2006, more than 23,000 lives were lost due to 6 major earthquakes in India, which

also caused enormous damage to property and public infrastructure. The occurrence of several devastating earthquakes in areas hitherto considered safe from earthquakes indicates that the built environment in the country is extremely fragile and out ability to prepare ourselves and effectively respond to earthquakes is inadequate. India witnessed several earthquakes like Uttrkashi of 1991, Latur in 1993, Jabalpur in 1997, Chamoli in 1999, Bhuj in 2001 and J&K in 2005.

13.2.2 Nodal Ministry:

Ministry of Earth Sciences (MoES) is the nodal ministry which will prepare the earthquake management plan covering all aspects like earthquake preparedness, mitigation, public awareness, capacity building, training, education, R&D, documentation, earthquake response, rehabilitation and recovery.

13.2.3 Monitoring seismic activity and safety codes:

The IMD will be the nodal agency for monitoring of seismic activity. The BIS will be the nodal agency for preparing earthquake-resistant building codes and other safety codes. All such key stakeholders, including Central Ministries and Departments and State Governments / SDMAs will develop detailed DM Plans recognizing the seismic risk in their respective jurisdictions, based on the guidelines of NDMA.

Given the high seismic risk, the earthquake vulnerability in India, the NDMA guidelines require the Railways along with other stakeholders to ensure that hereafter, all new structures are built in compliance of earthquake-resistant building codes and town planning bye-laws. This will be taken up as a national resolve.

13.2.4 Structural safety audit and strengthening:

The NDMA guidelines emphasise the need for carrying out the structural safety audit of existing lifeline structure and other critical structures in earthquake-prone areas and carrying out selective seismic strengthening and retrofitting. The critical factors responsible for the high seismic risk in Indian and consequently the prioritized six sets of critical interventions have been presented as the six pillars of earthquake management. They will help to;

1. Ensure the incorporation of earthquake-resistant design features for the construction of new structures.
2. Facilitate selective strengthening and seismic retrofitting of existing priority and lifeline structures in earthquake-prone areas.
3. Improve the compliance regime through appropriate regulation and enforcement.
4. Improve the awareness and preparedness of all stakeholders.
5. Introduce appropriate capacity development interventions for effective earthquake management including education, training, R&D and documentation.
6. Strengthen the emergency response capability in earthquake-prone areas.

13.2.5 Institutionalization earthquake-resistant design and construction:

The Railways along with Central Ministries and Departments and State Governments will facilitate the implementation of enforcement of relevant standards for seismically safe design and construction of buildings, flyovers, bridges, ports and harbours, and other lifeline and operationally important structures including track infrastructure, etc., falling within their administrative control.

13.3 MANAGEMENT OF LANSLIDES:

13.3.1 Landslide risk:

Landslides are one of the natural hazards that affect at least 15% of the land area of our country – an area which exceeds 0.49 KMs. Landslides of different types are frequent in geo-dynamically active domains in the Himalayan and Arakan-Yome belt of the NE parts of our country as well as in the relatively stable domains of the Meghalaya Plateau, Western Ghats and Nilgiri Hills. In all, 22 States and parts of UT Puducherry and Andaman and Nicobar islands are affected by this hazard. The phenomenon of landslides is more pronounced during the monsoon period.

13.3.2 Nodal Agency of GOI:

GSI was declared the nodal agency for landslides by the Government in 2004. The responsibilities of the Ministry of Mines / GSI as the nodal ministry / agency include coordinating all the activities related to landslide hazard mitigation and monitoring physical the occurrence of landslides in the country.

As per DM Act, the responsibility to cope with natural disasters is essentially that of the State Governments and the role of the Central Government is a supportive one in terms of supplementing physical and financial resources.

On the Railways, RDSO has still to undertake any study to identify vulnerable areas of rail infrastructure prone to landslide hazards. This work will be initiated by the Civil Engineering Directorate of Railway Board who will lay down guidelines for RDSO to undertake the study. Although management of landslides requires coordinated and multi-faceted among many stakeholders in the total disaster management cycle, one important recommendation for follow up by Civil Engineering Directorate of Railway Board is the landslide hazard zonation mapping in macro and micro scales after identification and prioritization of the areas in consultation with the Border Roads Organization, State Governments and local communities.

13.3.3 Monitoring and forecasting of landslides:

The monitoring and forecasting of landslides which are two of the least developed fields of landslide management practice will be given special attention as a part of mitigating the risk arising from landslide hazard. Monitoring of landslide include

- Surface measurements of landslide activity.
- Sub-surface measurements of landslide activity.

13.3.4 Surface measurements of landslide activity based on RAINFALL THRESHOLD BASED LANDSLIDE EARLY WARNING SYSTEM (RT-LEWS)

Theoretically all hill slopes can be considered as vulnerable to mass movements depending on the denudation processes, human intervention and the triggering mechanism. One way to minimize the disastrous effect of such rainfall-triggered landslides is by timely forecasting the rainfall condition that can initiate mass movements. It is therefore required to establish a relation between the landslide trigger (rainfall) and the event with some assessment on its magnitude (intensity). This is very much possible through analysis of rainfall-threshold, which is in short the minimum intensity or duration of rainfall required to trigger a landslide.

Rainfall-threshold as an input can be used for developing landslide early warning system (LEWS) for a large area. Purpose is to integrate weather forecast and locally monitored rain gauge data into rainfall-threshold model to compute warning precipitation level which represents cumulative effect of complex interaction between precipitation, infiltration, evapo-transpiration and geotechnical properties (static and dynamic) of sub-surface strata, which may trigger landslide.

- Database on rainfall derived from ground based observation need to be compiled and analysed to understand variability in a region vis-à-vis landslides.
- Track maintenance records provide information of date and spatial distribution of landslides in the form of debris accumulated on the track, traffic interruptions and time taken to restore traffic, but is restricted to only defined railway sectors..
- Compilation of landslide database with information on typology, location, date and time of occurrence.
- In order to address landslides induced by extremely localized high precipitation events known as “Cloud Burst”, it is desirable to increase the density of automated rain gauges (ARGs) with appropriate arrangement and analyse it on real time hourly data.
- Establishment of real time rainfall monitoring control room along with development of early warning communication mechanism.
- Implementation of rainfall based landslide early warning system for regional and local use. Alarm/broadcasting system for traffic control during monsoon seasons.
- The threshold model, as established for different regions, can be used to calculate probability of landslides based on predicted rainfall and its accuracy would be as good as rainfall prediction accuracy which is improving significantly due to better weather forecast models.

13.3.5 IMPLEMENTATION STRATEGIES

- Once the threshold limit is reached, the information can be conveyed to Section Controller about speed restrictions or stopping the trains, depending upon the situation at site for possible land slide. A lookout man with protection arrangements be posted at site.
- Automated SMS and e-mail service: NDMA can be collaborated along with mobile operators, to send automated SMS and e-mail messages to passengers, on precaution to be taken while travelling in the landslide occurred areas after landslide happened.
- Signs and events that manifests that a landslide is imminent, shall be monitored round the clock when rainfall threshold is reached, for giving suitable warning to the Section Controller and the passengers. These signs are:

1) Springs, seeps, or saturated ground in areas that have not typically been wet before.
2) New cracks or unusual bulges in the ground, street pavements or sidewalks.
3) Soil moving away from foundations, and ancillary structures such as decks and patios tilting and/or moving relative to the house.
4) Broken water lines and other underground utilities.
5) Leaning telephone poles, trees, retaining walls or fences.
6) Sunken or dropped-down road beds.
7) Rapid increase in a stream or creek water levels, possibly accompanied by increased turbidity (soil content).
8) Sudden decrease in creek water levels even though it is still raining or rainfall has recently stopped.

13.4 MANAGEMENT OF SNOW AVALANCHES:

The recording of avalanche data and their clearance is carried out by the Border Roads Organisation. The forecasting and control of snow avalanches are generally dealt with by the snow and avalanche studies establishment. According to the management of this hazard will be a collaborative work of the NDMA, District Administration, Border Roads Organisation, Snow and Avalanche studies establishment and academic institutions active in carrying out research in this field.

13.5 NATIONAL GUIDELINES ON TEMPORARY SHELTERS FOR DISASTER - AFFECTED FAMILIES:

National Disaster Management Authority (NDMA) has put together this 'National Guidelines on Temporary Shelters for the Disaster-Affected Families' that can assist states in managing post disaster shelter needs effectively. These guidelines aim to provide guidance on how to address the housing needs of the disaster affected households for short term and support them on the path of long-term housing and habitat recovery. These Guidelines are for use in post-disaster situations. However, these also include preparedness necessary during normal times for successful post disaster implementation. It includes activities such as clearing debris, restoration of basic community infrastructure, shift from emergency makeshift shelters or relief camps to intermediate shelters and early livelihood recovery.

13.5.1 TEMPORARY SHELTERS IN EARLY RECOVERY PHASE

The term 'temporary shelters' is commonly used in a broad sense to denote shelters built immediately after a disaster to meet needs of shelter before permanent houses are rebuilt. As the concept of durability is associated with 'permanent shelters', temporary shelters are assumed to be the opposite i.e. which need not last long. However 'temporary shelters' are of adequate quality to provide for the needs of families till their permanent housing is restored or reconstructed.

Drawing upon past international and national experiences and lessons learnt, we can identify two incremental shelter types as an effective practice for temporary shelter response during early recovery phase prior to permanent shelter reconstruction. It starts with an immediate shelter response termed as 'emergency shelters' to address short-term urgent need of protection after a disaster. The next increment comes in the form of 'intermediate shelters', which involves addressing and fulfilling needs for the mid-term duration until permanent houses are rebuilt.

13.5.2 EMERGENCY SHELTERS – SHORT-TERM TEMPORARY SHELTERS

Emergency shelters are made with an objective of immediate protection of life from the elements like sun, wind, rain or snow and to ensure a necessary degree of privacy. Many a times, the process of emergency shelters starts spontaneously as a self-protection measure by the affected households before any sort of help may arrive and are only a makeshift arrangement for dire need of shelter immediately after the disaster. This is usually done on their own or with support from within the community and their own social networks. The Government normally sets up relief

camps during such emergency situations using existing community and public buildings and infrastructure and may also undertake distribution of cash or shelter materials like plastic sheeting, tarpaulins, etc. to support immediate sheltering.

13.5.3 INTERMEDIATE SHELTERS – MID-TERM TEMPORARY SHELTERS

Once immediate exigencies of the hazard event are over, basic conditions of safety are somewhat restored and families, to an extent, have regained some control of their disturbed lives, emergency makeshift shelters are not found to be adequate. The affected community needs to move to durable intermediate shelters where a reasonable duration of time can be spent before permanent houses can be constructed. This indicates need of shelters which though not permanent but have greater extent of stability, robustness and comfort. Permanent housing reconstruction often takes 2-3 years so as to effectively address aspects of eligibility, habitat planning, land rights, resources and technical norms.

As intermediate shelters are for medium term duration till the affected community can settle in their permanent residences, they require significant support from government to facilitate essential services so that the affected community can return to normalcy at the earliest.

13.5.4 GUIDING PRINCIPLES FOR TEMPORARY SHELTERS

Following principles are the foundation for these guidelines on 'temporary shelters – emergency and intermediate':

- Support for recovery from a disaster is an entitlement of the affected people
- Affected people should not be treated as hapless passive recipients of relief but as resourceful agency.
- The most vulnerable community members tend to be invisible or at the margins and unable to access support. Therefore, targeted attention should ensure their inclusion. No one should be left behind.
- Temporary shelters should be disaster resistant and not cause any further injury or loss of life.
- Use of materials and technologies that involve self-help should be encouraged. This also includes building materials and components that can be retrieved, salvaged, recycled and reused from rubble or damaged houses.
- One design doesn't fit all. A bouquet of design and technology options is necessary to ensure that people can have a shelter that's appropriate for their needs.
- Temporary shelters should be durable at least until permanent house is reconstructed.
- Socio-technical facilitation of shelter process is not just a matter of certain tools and techniques but requires a mind-set and perspective of enabling the community.
- If collective community efforts are facilitated well and in a timely manner, early recovery shelter process can become an active precursor to effective owner-driven housing reconstruction program later.

13.5.5 TIMELINESS OF TEMPORARY SHELTERS

Timely formulation and execution of the shelter policy is essential, since the first few weeks after the disaster is critical to shape the entire reconstruction programme. Intermediate transition shelters need to be built within the first three to four months after the occurrence of the disaster. Any further delays cause frustration and dissatisfaction amongst the survivors, while leading to construction of unsafe and unsuitable shelters. While the response has to be timely, it should not be hasty. There are multiple issues that arise with hasty erection of temporary shelters such as incomplete beneficiary selection, poor site selection, contextually inappropriate choice of shelter designs, materials and construction technology, inflated costs, lack of community consultation or participation leading to inappropriate shelter and dissatisfied families. Shelter response is most efficient when it is designed with foresight, to enable a smooth transition from early recovery shelters to the permanent housing.

1305.6 IDENTIFICATION OF AFFECTED FAMILIES ELIGIBLE FOR TEMPORARY SHELTERS

Taking a humanitarian view, the current situation of the affected person should be the criteria to access the temporary shelter assistance. The assistance scheme must ensure that all genuinely affected families are able to access the support provided by the government fairly, equally and easily.

1305.7 TYPOLOGIES OF TEMPORARY SHELTERS

Temporary shelters can be understood in following three typologies.

1) Assembly based shelters such as shelter kits, tents, pre-fab units, shipping containers, etc.
2) Construction based shelters that are to be constructed in-situ or ex-situ with construction materials like bricks, stones, timber, bamboos, steel, cement, mud or other such materials.
3) Rental accommodation that the affected people can find in already existing undamaged houses that survive the disaster. This is not really a typology but an alternative way of accessing accommodation temporarily and fulfil needs for short-term and medium-term effectively, particularly in the urban context.

1305.8 ROLES AND RESPONSIBILITIES

Facilitating access to materials:

1) Prior and long-time tie- up with manufacturers and suppliers to provide tents/shelter kits/prefabricated shelters and materials such as tarpaulins, CGI sheets, bamboo, etc. starting within 24 hours of placement of order and help in transporting them.
2) Procure and provide tents, shelter kits prefabricated shelters, tarpaulins, bamboo, CGI sheets and other temporary shelter materials, on the request of stakeholders.
3) Suitable water facility for daily needs also to be kept in mind while deciding the locations of temporary shelters.

4) Proper ventilation in temporary shelters needs to be provided in hot and humid areas.

13.5 WEATHER WARNING

Arrangements exist with the Meteorological Department, Government of India for issuing telegrams of warning and also through FAX and email whenever storm / gales or for heavy rainfall are expected. The conditions under which warnings are issued are detailed below:

(i) Amount of rainfall considered dangerous – 5 cm and above in 24 hours.
(ii) Wind velocity considered dangerous - 65 KMPH or above.
(iii) Period when warning will be given – throughout the year.

13.6 TERMINOLOGY USED IN MET. DEPARTMENT BULLETINS REGARDING CYCLONES

Type of disturbance	**Associated wind speed**	
	Knots	**KMPH**
Low pressure area	less than 17	30
Depression	17 – 27	30 – 50
Deep depression	28 – 33	50 – 64
Cyclonic storm	34 – 47	65 – 90
Severe cyclonic storm	48 – 63	90 – 120
Very severe cyclonic storm	64 – 119	120 – 220
Super cyclonic storm	more than 120	more than 220

(1 knot is equal to 1.85 KMPH)

13.7 INTENSITY OF PRECIPITATION

Rainfall amount (in cm)	**Description**
Less than 1	Light rain
1 to 3	Moderate rain
4 to 6	Rather heavy rain
7 to 12	Heavy rain
13 and above	Very heavy rain

13.8 SPATIAL DISTRIBUTION

The area over which the phenomenon like rainfall is expected to occur.

Isolated (at one or two places)**:**	25% or less of the total area under consideration.
At few places (scattered):	Between 25% to 50% of the total area.
At many places (fairly widespread)**:**	Between 50% to 75% of the total area.
At most places (widespread)**:**	More than 75% of the total area.

13.9 NORMAL WEATHER WARNINGS:

- Conveying messages by IMD, GOI.

- The entire SCR territory has been divided into 7 zones.
- Weather warning telegrams will be classified as “XXW” (weather warning) or “000” (weather immediate). These telegrams will normally be delivered by the BSNL Office direct to the Central Control Office/SC and Divisional Control Offices concerned. Liaison should be kept with local BSNL Authorities for the receipt of telegrams over phone to avoid transit delay in actual delivery of the message.
- State Meteorological centres function at Hyderabad for Andhra Pradesh state, at Bangalore for Karnataka and at Mumbai for Maharashtra state. In addition, Cyclone Warning Centre has been established at VSKP. The weather warning telegrams will emanate from:

(i) Regional Meteorological Centre, Colaba, Mumbai for Zone I.
(ii) State Meteorological Centre,Hyderabad Airport, Hyderabad for Zone II, III & IV.
(iii) Cyclone Warning Centre, Andhra University, Vishakapatnam for Zones V & VI.
(iv) State Meteorological Centre, HAL, Airport, Bengaluru for Zone VII.

- The Cyclone Warning Centre, Vishakapatnam will give the adverse weather warning telegrams on depressions and cyclonic storms coming from Bay of Bengal and storms are still at sea for the coastal area of A.P.
- Long distance telephone calls will not be resorted to normally, but on special occasions this mode of communication may be utilised by the Foreocasting Officer at his discretion.

LIST OF ZONES ON S.C.RAILWAY WITH THEIR AREAS COVERED BY EACH ZONE FOR WHICH WARNING TELEGRAMS ARE ISSUED

S.No	Zone	State & District	Railway Section	Telephone Nos. & email addresses	Regional Meteorological Centre issuing the warning
1	I	**Maharashtra** Nasik, Aurangabad, Parbhani, Nanded, Osmanabad, Akola **M.P** Khandwa	MMR-BSX MUE-ADB PBN-PRLI PAU-AK-KNW	02462 – 261729 drmned@scr.railnet.gov.in	RMC, Colaba, Mumbai – 400005 Tel. No. 022-8393473, 8394105, 26823009
			Kamalnagar-PRLI	040 – 27823156 040 - 27823905 drmsc.railnet.gov.in	
2	II	**Telangana** Adilabad, Karimnagar, Nizamabad, Warangal, Medak	KZJ-BPQ, KZJ-DKJ, SSPD-ZB, MAGH-GDCR, PDPL-KRMR	040-27823156 drmsc.railnet.gov.in	SMC, Hyderabad–500 019 Tel No. 040-27908506 27904950
			ME-BSX	040-278223905 drmhyb@scr.railnet.gov.in	
3	III	**Telangana** Khammam, Nalgonda, Hyderabad, Mahaboobnagar	DKJ-MDR DKJ-BDCR-MUGR KRA-SYI SC-ALER BMT-HYB SC-NWG	040-27823156 drmsc.railnet.gov.in	SMC, Hyderabad–500 019 Tel No. 040-27908506 27904950

			VKB-SSPD		
			SC-ME, SC-KRNT	040-278223905 drmhyb@scr.railnet.gov.in	
4	IV	**Andhra Pradesh** Kurnool, Anantapur, Kadapa, Chittoor	GTL-MALM, GTL-RU, RU-VKI, GTL-DMM, DMM-PAK, PAK-KPD, PAK-RU, GTL-BVL, GTL-DHNE, DHNE-NDL, PDKL-GY, GTL-KLU	08552-227882 drmgtl.railnet.gov.in	SMC, Hyderabad–500 019 Tel No. 040-27908506 27904950
			KRNT-DHNE,	040-278223905 drmhyb@scr.railnet.gov.in	
5	V	**Andhra Pradesh** Guntur, Prakasham, Nellore	BZA-GDR	0866-2578860 drmbza@scr.railnet.gov.in	CWC, Andhra University Campus, Vishakapatnam – 530 003 Tel. No. 0891-2543034, 2543036
		Nalgonda, Kurnool	MRGA-NDKD, GNT-DKD, GNT-TEL-RAL, GNT-KCC, DKD-NDL PGDP-NLDA MRGA-GNT-MCLA	08663-2234152 drmgnt@scr.railnet.gov.in	
		Nellore	GDR-VKI	08552-246351, 245427 drmgtl@scr.railnet.gov.in	
6	VI	**Andhra Pradesh** Vishakapatnam, East Godavari West Godavari, Krishna	BZA-VSKP, SLO-COA, BZA-GDV-MTM, GDV-BVRM-NS, BVRM-NDD-CCT0KPLH	0866-2578860 drmbza@scr.railnet.gov.in	CWC, Andhra University Campus, Vishakapatnam – 530 003 Tel. No. 0891-2543034, 2543036
			MDR-KI, MTMI-JPTN	040-27823156 drmsc.railnet.gov.in	SMC, Hyderabad–500 019 Tel No. 040-27908506 27904950
7	VII	**Karnataka** Raichur, Bellary, Mohammadabad, Bidar, Gulbarga	BAY-BVL, MALM-WADI	08552-227882 drmgtl@scr.railnet.gov.in	SMS, HAL Airport, Bangalore – 560017 Tel No. 080-22211118, 22235675
			ZB-KAMALNAGAR, NWG-CT, SUH-WADI	040-27823156 Drmsc.railnet.gov.in	

- **Dissemination of messages within Railway:**
  On receipt of weather / cyclone warning telegrams in the Control Office, the following action should be taken.

- **Central Control, Railnilayam, Secunderabad – 500 071**:

(i) The Chief Controller shall give the copy of message to all controls, i.e., Engineering Control, Traction Power Control, Traction Loco Control, Power (diesel) Control, Security Control, Commercial Control, Electrical Control, S&T Control/Test Room and Divisional Control Office concerned. It is the responsibility of these controls in their turn to inform the Officers, Supervisors and all concerned pertaining to their Departments for taking necessary steps to be in readiness for meeting any eventualities. They should record the names and designation with the time and date to whom the message has been repeated.

(ii) He should also verify with the Divisional Control that such weather / cyclone warning telegrams received by him have also been received by the Divisional Chief Controllers of the concerned Divisions, so that lapses can be remedied then and there.

13.10 ACTION BY THE DIVISIONAL CONTROL OFFICE

(a) The Chief Controller shall give the copy of message to all Controls, i.e., Engineering Control, Traction Power Control, Traction Loco Control, Power (diesel) Control, Security Control, Commercial Control, Electrical Control, S&T Control/Test Room. It is the responsibility of these controls in their turn to inform the Officers, Supervisors and all concerned pertaining to their Departments for taking necessary steps to be in readiness for meeting any eventuality. They should record the names and designations with the time and date to whom the message has been repeated.

(b) The SCOR shall repeat the message to SMs on the section likely to be affected and record the names of SMs on duty to whom the telegram has been repeated.

Note: In respect of sections which are not controlled or when the control phone is interrupted, an "XXR" (immediate) telegram should be issued by the Chief Controller to the Officials referred above.

(i) The preamble of the weather / cyclone warning telegram and the text as received from the Meteorological Department should be reproduced verbatim in the text of the "XXR" telegram, the text of the message should be worded as shown below;
Regional Meteorological Centre …….. (here enter the name of the Meteorological Centre) **XXW/000** (insert whichever class is used by the Meteorological Department) **telegram coded ……..** (insert the code of the original message) **dated ……..** (date of the original message) **reads ……..** (reproduce the text of the Meteorological telegram verbatim)**.**

(ii) A register should be maintained in each Control of each Department i.e., Engineering Control, Traction Power Control, Traction Loco Control, Power (diesel) Control, Security Control, Commercial Control, Electrical Control, S&T Control/Test Room showing full particulars of the receipt and action taken on the weather / cyclone warning telegrams, showing the date and time of receipt of warning telegram, the full text of the telegram and the date and time of despatch of telephonic advices to the Officials concerned and the initials of the SMs on duty to whom the telegram has been repeated.

13.11 ACTION BY THE SM

Intimation to staff:

On receipt of weather / cyclone warning advice from the SCOR, the SM should take the following action; SM on duty at station where ADENs / SSE/SE-P.Way / SSE/SE-Works / SSE/SE-OHE/PSI are headquartered should immediately arrange to handover the parties concerned a copy of the verbatim telegram received from the SCOR and obtain acknowledgement. If they are out of headquarters, the SM shall advice the controller on duty who will then be responsible for ensuring that the contents of the telegram are communicated verbatim to Engineering and TRD officer at the station.

Date & time of receipt	Text of message in full	Name / Designation of officials to whom message was repeated`	Signature of the SM	Actual weather condition

The office copy of the telegram on which acknowledgement has been taken should also be pasted in the register.

Precautions to be taken by the SM, LP/ALP and Guard regarding control of trains during storm and strong wind:

(i) When the warning message forecasting cyclone, storm or strong wind has been received from the Meteorological Department and/or there is a reasonable doubt that severe storm is going to break out endangering the safety of passenger carrying trains etc., the SM shall, in consultation with the Guard and the LP/ALP of the train regulate the train and also refuse to grant line clear to a train coming to his station until storm abates and he considers safe for the movement of trains.

(ii) Should a train be caught on the run in a cyclone, storm or strong wind of an intensity which in the opinion of the LP/ALP, is likely to endanger the safety of the train he shall immediately control the speed of his train a and bring it to a stop at the first convenient place taking care as far as possible to avoid stoppage of the train at places like sharp curves, high embankments and bridges (including approaches thereof). In controlling the speed and bringing the train to a halt, the LP shall stop his train carefully and without a jerk. He shall restart the train in consultation with the Guard only after the cyclone, storm and wind abates and it is considered safe to proceed.

(iii) The Guard and LP/ALP of the train in co-operation with the railway staff travelling in the train shall try to see that doors and windows of the coaches are kept open by the passengers to allow free passage of the wind through the coaches.

13.12 ACTION BY SSE/P.WAY

(a) The SE/P.Way on receipt of weather / cyclone warning message should arrange to advise Monsoon Patrolman / Watchmanand Gangmates to be extra vigilant. During the fair season, he should introduce Monsoon Patrolling as soon as

possible and also post Watchman as required at all vulnerable locations and bridges by day and as well as by night for a period extending upto 48 hours beyond the period specified in the Weather / Cyclone warning telegram.

(b) The SE/P.Way should be out in his section as far as possible by trolley during period of warning and 48 hours beyond.

(c) **Monsoon Patrolling:** Commencement and termination – if the local condition warrants, the SE/P.Way of the section concerned may introduce or continue night patrolling outside the stipulated dates; duly advising 'all-concerned' (1003 of IRPWM). In other words, he cannot discontinue or terminate the Monsoon Patrolling within the stipulated period.

(d) **Vulnerable locations:** Stationary Watchman should be posted round the clock at every nominated location during the Monsoon period (1014(3) of IRPWM).
Sign board: Sign boards will be fixed during the Monsoon period only, i.e., on both sides of vulnerable points at a distance of 400m on each side (Item 9.8 of Appendix IV of G&SR).

(e) **Monsoon Emergency Reserve Stock:** The locations and the prescribed quantities of Monsoon emergency reserve stock i.e., sand, boulders and empty cement bags. It should be ensured that the materials are made available accordingly, before the onset of Monsoon.

In addition to Monsoon reserve stock mentioned above, the following materisla are to be kept ready on wheels for handling any emergency situations like breaches and wash-a-ways.

(i) 10 covered wagons each filled with boulders and sand at RU, KCC & KZJ.

(ii) RH girders one set each of 16.3m and 13.4m length on BFRs with 50 Nos. of steel cribs (duly secured) at RU, KCC & KZJ.

13.13 ACTION BY GANGMATE

On receipt of advice from the SM, the Gangmate should take the following action:

(a) During the fair season, the Gangmate should on his own accord depute two reliable Gagmen with the equipment for patrolling the block section on either side and for alerting the intermediate Gangmate.

(b) During Monsoon period, the Gangmate of the station / yard gang should send two Gangmen in opposite directions to alert intermediate Gangmates, Patrolmen and Watchmen.

(c) "Should there by heavy rain or severe storm during the period, weather during the monsoon or fair season, the Gangmate and Gangmen shall carry out the gang patrol as per instructions contained in Para 1001 (3), (7) and Para 1002 of IRPWM.

13.14 ACTION BY Traction Power Control

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 any 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.

13.15 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 in 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 flood lights etc., shall be kept ready for movement at any instant.

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

13.16 ELECTRICAL GENERAL SERVICES WING SHALL ENSURE THE FOLLOWING TO BE IN READINESS

(i) Sufficient stock of fuel to run available DG set for 24 hours.
(ii) Atleast 2 portable DG sets at each Depot in good condition.
(iii) Four numbers of portable weather proof tents including requirement of Electrical and S&T staff.
(iv) List of contractors capable of providing DG sets with operators at site and their telephone numbers and arrangements for deployment at short notice.

13.17 ACTION TO BE TAKEN IN THE EVENT OF EAST COAST BEING THREATENED BY CYCLONIC STORMS

(i) Receipt and transmission of message: The Cyclone Warning Centre, VSKP will give adverse weather warning telegrams on depressions, cyclonic storms coming from Bay of Bengal when the storms are still at sea for the coastal area of A.P.

(ii) The cyclone warnings will be issued in two stages. The first warning (cyclone alert) is issued as soon as the cyclonic storm is located at such a distance from the coast that it is expected to cause bad weather over the coast during the next 48 hours. This is followed by second stage warning (Cyclone warning) message when there is actual threat of cyclone over the area. Subsequently, messages giving the latest cyclonic situation are issued by the Cyclone Warning Centre till the danger to the area is over. Weather bulletins issued by the Cyclone Warning Centre are broadcast daily as a routine from the AIR stations. In storm situation special weather bulletins are broadcast daily are broadcast repeatedly at non-scheduled time also.

(iii) The Chief Controller, BZA Division and Chief Controller, Central Control, Railnilayam, Secunderabad are the two nominated officers to whom the above warnings are issued by the Cyclone Warning Centre, VSKP.

13.18 ACTION BY CHIEF CONTROLLER, CENTRAL CONTROL, RAILNILAYAM, SECUNDERABAD

He should be alert and take immediate action as laid down in earlier para 2.7.1. He should also intimate the cyclone warning and alert the Chief Controller, SC and GTL Divisions in case of cyclone is expected to pass over their Divisions.

13.19 ACTION BY CHIEF CONTROLLER, BZA DIVISION

He should be alert and take action as laid in earlier paras.

(i) The following Engineering Department Officers of BZA Division shall proceed and be available at stations indicated below: (CGE shall proceed to BZA depending on the severity of the situation at his discretion).

Sr.DEN (South) / BZA	BTTR
Sr.DEN (Central) / BZA	BPP
DEN/E/BZA	BVRM
Sr.DEN (North) / BZA	SLO
St.DEN/Co-ord / GNT	GNT

(ii) The ADENs will be in their respective headquarters. Their further movement when the effect of cyclone is felt will be left to their discretion, depending upon the needs of the situation and they will be guided in this respect by the CGE who will be directing the operations from BZA or from SC through Sr.DEN/Co-ord/BZA.

(iii) When landline communication fail, the facility available on microwave network and wireless transmission shall be made use of to disseminate the warnings to all concerned. High priority should be given for disposal of cyclone messages.

(iv) **Immediately on receipt of the 'Second Stage Warning on Cyclone',** the Chief Controller, BZA will keep liaison with AIR, BZA and Meteorological Department, VSKP in receiving further bulletins and disseminate the same to all concerned. Arrangements are made by Meteorological Department to broadcast the weather bulletin from the AIR (hourly intervals) and sudden / unexpected developments as soon as it is notified to the radio station. For this purpose, the Chief Controller, BZA should hear the bulletins on the transistor, radio set available in the control office and disseminates the cyclone warnings to all concerned.

(v) DRM/BZA shall depute a Senior Traffic Officer and Senior Engineering Officer to co-ordinate with all other Branches and local Civil Authorities. The said Officers will be responsible for regulation / diversion / cancelation of train services in the areas likely to be affected by cyclone depending on the local situation.

(vi) In case of imminent cyclone threat, it is advisable to cancel through running of trains and regulate the trains in the section at suitable places where catering arrangement are available, under no circumstances the passenger trains should be allowed to be marooned. DRM shall depute a Senior Commercial Officer for monitoring this purpose.

(vii) In case of Districts not affected by the cyclone, de-warning message will be sent.

(ix) AEE/TRD of Division has to station himself in the TPCs room to keep liaison with all other branches. The said officer will be responsible for taking prompt action depending on the situation.

(ix) Control of trains – when communications fail the SM will take similar action as indicated in Paras.

13.20 ACTION TO BE TAKEN IN CASE OF HOLDUP OF TRAINS DUE TO CYCLONE (GENERAL)

a. By the Senior Traffic official nominated by DRM.

(i) An enquiry office with a PA system is to be opened immediately on BZA platform to relay the information regarding the stranded trains, relief operations and transshipments, supply of food packets etc., DRM shall depute a commercial officer for this purpose.

(ii) He shall make arrangements to post Medical Officer / Personnel at railway stations where trains are stranded and where facilities exist. In outstation or other places, he shall approach the District Collector or the local Special Police Officer who will make necessary arrangements.

(iii) He shall plan for the quick transshipment of stranded passengers in consultation with the RTC where repair to track is likely to take longer time. DRM shall depute a Commercial Officer for this purpose.

b **By the Station Master:**:

(i) He shall inform Tahshildar, RDO or Sub-Collectors and the Collector of the area regarding the holdup of trains in his station.

(ii) The SM shall seek the assistance of the local Revenue Authorities in arranging adequate supply of lemon rice and curd rice etc., along with pure drinking water to the stranded passengers; milk and biscuits to children. Commercial staff should make arrangements for supply of food etc.,

13.21 EARTHQUAKE: Impact of earthquake on Railway system may be as under:

Damage to track: Track may be damaged in the form of

a. Misalignment
b. Deformation
c. Sinking of track
d. Collapse of / damage of bridges / girders / piers
e. Collapsing of ROBs / RUBs
f. Falling of trees / fixed structures obstructing the track

Damage to service buildings like:

a. Control Office
b. SM Office, Relay Room, Cabins and Gate lodges, etc.,
c. Administrative buildings
d. Residential buildings
e. Platform covers, FOBs, sub-ways etc.,

Damage to S&T installations:

a. Signal posts
b. Microwave tower

c. Telegraph posts and wires
d. Uprooting of Cables
e. Uprooting of location boxes etc.,

Damage to OHE and other Electrical installations:

a. OHE masts
b. Portals
c. TPC
d. Tower Car Shed
e. SP/SSP locations
f. Electric Loco Shed

Damage to C&W, Sick line, Loco Shed:

a. Pitlines
b. Sick lines / shed structure
c. IOH sheds
d. Diesel Loco shed
e. ROH / POH Depots
f. Wagon Depots etc.,

13.22 ACTION TO BE TAKEN BY VARIOUS DEPARTMENTS

a. Operating Branch

- Stop all trains
- Inform P.Way, S&T, C&W, TRD Supervisors for checking track, bridges, points, signals, OHE and other installations / structures by moving on a light engine / push trolley / motor trolley in each block section of affected area.
- Inform Civil Authorities regarding any unusual occurrence.
- Arrange stock and power for moving relief / restoration material.
- Arrange additional Operating staff like ASMs, Pointsmen, Guards and Cabinmen from unaffected areas.

b. Engineering Branch

- All P.Way Supervisors including SSE/SE/JE P.Ways, IOWs, BRIs, Trackmen, Keymen and other staff shall report to the nearest SM who in turn will advise Control about the availability of P.Way staff and Supervisors.
- A team Trackmen, Keymen and SSE/SE/JE-P.Way, BRI should be sent on either side of each block section for checking the track structure and bridges.
- The checking team should suitably be instructed to protect any damaged track structure or bridge in the section.
- After checking the whole section, a report detailing the nature of damage, location and requirement of men and material should be submitted to SM, who in turn will advise the control.

c. S&T Branch

- Overhead and cable communication may be affected due to earthquake, immediate efforts should be made to provide alternative means of communications through VHF, Microwave, RE cable, OFC, Satellite phones, etc., between the control and stations.

- SSE/SE-Signals/Tele and ESM/MSM must be available at the stations. After checking all S&T installations, details of the damage and additional requirement of men and material should be given to S&T Control / Test Room.

d. Electrical (TRD) Branch

- On receipt of information about the earthquake, OHE supply on the affection section should be shut down immediately. All the sections in UP & DN directions should be checked thoroughly by Tower Car which shall run at a restricted speed so that it can be stopped before any kind of obstruction.
- After checking each section, feedback should be given to TPC who in turn will advise the position to Dy.CHC.

e. Electrical General Maintenance Branch

- In case of failure of power supply , DG sets should be arranged at important installations like stations, Control Office, etc.,

f. Commercial Branch

- Regular announcements should be made at the stations explaining the calamity and effect of train running.
- Emergency enquiry counters should be opened at major stations and at the affected stations. They should be provided with BSNL and mobile facility.
- Basic amenities like drinking water, food, etc., should be provided to the stranded passengers.
- Additional windows should be opened for refund of tickets.

g. Mechanical Branch

- Relief coaching stock and wagon stock available on the system must be made ready.
- In case of electrified territories, diesel power should be made available.

h. Personal Branch

- Set up of relief cell consisting Welfare Inspectors and other staff to assess losses and damages at stations and colonies.
- For providing speedy relief, co-ordinate with trade unions, Mahila Samithis, NGOs, etc.,

i. Security Branch

- Help Railway officials / employees in relief work at stations and in colonies.
- Protect Railway assets including vital installations and restrict the entry of those areas.
- Render necessary assistance to the affected persons.
- Maintain close co-ordination with Civil Authorities.

****

CHAPTER XIV

DISASTER INFORMATION FLOW AND ALERTS OF DISASTER & MEDIA MANAGEMENT

14.1 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 Government and District Authorities. They have prepared the SOPs for handling manmade disasters for which they are earmarked as the lead Ministry for disaster response, relief and mitigation.

All Central Ministries, State Government, 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.

14.1.1 Levels of Disasters:

The SOPs will determine the levels of disasters and for issuing alerts to electronic messaging systems to various agencies about disasters have been formulated by MHA. These SOPs will be reviewed periodically for disaster response management in case of natural and manmade disasters.

14.1.2 Integrated Operation Centre of MHA:

Integrated Operation Centre (IOC) has been set up in the MHA to handle disaster situation on 24x7 basis. IOC is responsible for initiating incident alert messages when a disaster is likely to occur or when it has actually taken place.

14.1.3 Categorization of Alerts:

A standard SOP 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 categorization each type of alert in stages – **yellow, Orange and Red.**

14.1.4 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).

III. For natural calamities and other crisis situations categorisation of alerts is as under:

a. Avalanches (Defence Research And Development Organisation)

Category	Description	Stage
Low	Generally favourable condition. Triggering is generally possible only with high additional loads and on very few extreme slopes. Only sluffs possible and reach valley in small sizes. Valley movement is safe. Movement on slopes with care.	**Yellow**
Medium	Partly unfavourable condition. Triggering is possible on most avalanche prone slopes with low additional loads and may reach the valley in medium size. Movement on slopes with extreme care. Valley movements with caution. Avoid steep slopes. Routes should be selected with care.	**Yellow**
High	Unfavourable condition. Triggering is possible from all avalanches prone slopes even with low additional loads and reach the valley in large size. Suspend all movements. Airborne avalanches likely.	**Orange**
All round	Very unfavourable condition. Numerous large avalanches are likely from all possible avalanche slopes even on moderately steep terrain. Suspend all movements. Airborne avalanches likely.	**Red**

b. Tsunami (Department of Ocean Development):

Category	Description	Stage
No yellow stage		
Moderate	When an earthquake of greater than 6.0 is reported and / or a Tsunami watch alert is received from JMA / PTWC	**Orange**
Great	When change in water level after an earthquake is reported by National Institute of Ocean Technology, ITWC would issue a 'tsunami warning' *as per laid down channels	**Red**

* The warning may be withdrawn after a better assessment of the level of rise in water level.

c. Landslides (Geological Survey of India):

Category	Description	Stage
IV	Landslides of small dimensions that occur away from habitations and do not affect either human or their possessions. These may occur near infrastructural installations, agricultural and forest lands and may not affect them in a significant manner. These slides may include small incidents that block communication routes for short periods or donot affect the society in a	**Yellow**

	significant manner.	
III	Landslides which are fairly large and affect infrastructural installations like strategic and important highways and roads rail routes and other civil installations like various appurtenant structures of hydro-electric and irrigation projects. The landslides that enter large water bodies like reservoirs of hydro-electric projects and could damage some of components of these projects.	**Orange**
II	The landslides that may occur on the fringes of inhabited areas and result in limited loss of life and property. Landslides which result in blockage of courses of relatively smaller natural drainages. If the blockage is of relatively smaller dimensions its impact would be of lower order. Although a threat potential is there, it may not be immediate	**Orange**
I	Landslides of large dimensions that are located over or in close vicinity of inhabited areas like urban settlements or fairly large rural settlements. Activity on these slides can result in loss of human lives, dwellings on large scale. These slides may also inflict heavy losses on urban infrastructure. The slides that block busy pilgrimage routes during peak times resulting in hardships to thousands of pilgrims and sometimes resulting in loss of human life. Landslides which result in blockage of courses of relatively large natural drainages. If the blockage is fairly large it could lead to formation of very large reservoir of water behind it. Formation of a large landslide dam could result in sudden flooding of areas located upstream. Abrupt breaching of landslide dam would suddenly release enormous quantities of water in the downstream areas leading to flash floods that could result in loss of life and damage to property o large scale.	**Red**

d. Cyclone (IMD):

Category	Description	Stage
Cyclone alert	Issued 48 hours before the commencement of bad weather when a system is located about 500 KMs or more away from the coast. The forecast may not contain information about landfall and hence it is still of informatory type but at the same time meant to trigger preparatory actions. During this stage, disaster managers plan on the course of action required to be initiated once the system moves closer to the coast.	**Yellow**

Cyclone warning	These messages are issued 24 hours before commencement of bad weather and are of a **'serious nature'.** During this stage, the system is monitored closely and the expected place and time of landfall and the districts along the coastal areas likely to be affected are clearly indicated in the warning messages. The location of the system at this stage may still be 300 KMs to 500 KMs away from the coast. Disaster management machinery is expected to be geared up fully during this phase.	**Orange**
Post landfall outlook	During this phase, warning messages are issued about 12 hours before actual landfall and are of a **'very serious nature'.** At this stage, it is expected that the disaster management machinery is in full operational mode to face the impending disaster. All preparedness action should have been completed by this time. MHA would be closely monitoring steps taken by the concerned State Governments regarding evacuation and relief activities like food, sanitation, etc., This phase is fit to be classified as **'great danger'** and all warning messages issued to MHA Control Room are required to be forwarded to senior officials of the PMO.	**Red**

e. Earthquake (IMD):

Category	Description	Stage
Slight	M < 5.0	**Yellow**
Moderate	5.0 < M < 6.9	**Orange**
Great	M > 7.0	**Red**

f. Flood (Central Water Commission):

Category	Description	Stage
IV	Low flood (water level between warning level and danger level)	**Yellow**
III	Moderate flood (water level below 0.50m, less than HFL and above danger level)	**Yellow**
II	High flood (water level less than highest flood level but still within 0.50m of the HFL)	**Orange**
I	Unprecedented flood (water level equal and above highest flood level)	**Red**

g. Railways (Ministry of Railways):

Category	Description	Stage
Minor	50 or more casualties (inclusive of deaths)	**Yellow**
Medium	51 – 99 deaths	**Orange**
Major	100 or more deaths or where additional assistance is sought by the Ministry of Railways	**Red**

h. Forest fire (Ministry of Environment and forests):

Category	Description	Stage
Ordinary	Localized fires which can be controlled by the concerned territorial Conservator of Forests	**Yellow**
Medium	Where large forest area is under fire, which can be controlled by the State Government and no Central intervention is sought by the State.	**Orange**
Major	Large fire which may result in substantial loss of human lives, massive environmental degradation or loss of wildlife.	**Red**

14.1.5 Action by Divisions /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;

- ✓ Mobilization of Gangmen.
- ✓ Hospitals to mobilize Doctors and Para-medical staff.
- ✓ Civil Defence units to be activated.
- ✓ RPF and RPSF deployment.
- ✓ Scouts and Guides for colony care and passenger guidance.
- ✓ Operation and manning of the DM Control Room.
- ✓ Coordination amongst various stake holders through advance warnings.
- ✓ Communication system to be ensured and back up to be in readiness for immediate use when required.
- ✓ 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 until after issue of their mobilization order. Hence, advance warning is necessary.

14.1.6 Monitoring and reporting of effects of disaster:

The Safety Directorate 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 Administration, or even by the GM/AGM of the Zonal Railways, the CSO 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 of the Zonal Railway/s.

14.1.7 Standard Operating Procedure (SOP) on Railways:

The Civil Engineering Department at the field level and on the Division gets information through advance warning sent by the respective Government Departments on the possibility of floods, cyclones, earthquakes, landslides, etc., Depending on the gravity of the disaster / crisis / calamity expected, the information would be passed on to the Divisional Officers through Emergency Control which will act as the ICS. Where train operations have to be suspended or regulated, the Operating Department would 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 Railways in the print and electronic media.

The DRMs of the Divisions shall ensure coordination amongst the Departments for ensuring running of train services including relief specials 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 Headquarters of the Zonal Railways, i.e., by involving GM. Coordination with the IOC of MHA and NDMA / NDRF would be through the Emergency Control of each zonal headquarter.

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 coordination with the State Governments and when required, with the paramilitary 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 organising regulation of train services by the Operating Department at the Divisional, Zonal level and also in Railway Board.

14.2 OBJECTIVES – Media Management

- To provide factual information to public with regard to accident.
- To convey any other information this is of useful to passengers.
- To convey specific information which is of use to relatives / dependants of dead and injured?
- To create a positive public opinion.
- To create a healthy relationship with the print and electronic media.

14.3 DUTIES OF PUBLIC RELATIONS ORGANISATION

- CPRO and his team will collect whatever information is available and released it to the media within one hour of the accident.
- The information shall include telephone numbers of helpline enquiry booths.
- Photographers with digital cameras and videographers should also be taken to the site of accident.
- Responsible PR Supervisors should be deputed during night shift for interacting with the media, if necessary.
- CPRO will organise press briefings at fixed timings.
- PR Organisation shall monitor various important media channels to keep track of media reporting. Suitable corrections / clarifications may also be issued, if required.

14.4 SPOKESPERSON

- GM, DRM and CPRO are competent to interact with press and electronic media.
- Apart from the above, any other officer authorised by GM competent to interact or give interview to press and electronic media.
- They should ensure that only factually correct and confirmed information is relayed.
- No inflated or exaggerated version of any fact should be relayed to the media.

No Railwayman shall express or voice any criticism, or express his personal opinion or views about the accident at any point of time.

14. 5 INFORMATION TO BE RELAYED TO PRINT AND ELECTRONIC MEDIA

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

A. Accident

- Nature of the accident, i.e., date, time, exact location, train number, number of coaches involved, etc.,
- Details of how the accident could have occurred.
- Prima-facie cause of the accident will be relayed to media only with the approval of GM.
- Sabotage, even if suspected will not be relayed to media without the approval of Railway Board.
- Regular reports regarding progress of rescue and relief work.
- Expected time of restoration.

B. Uninjured Passengers

- Steps taken to arrange hot beverages, refreshments and other catering arrangements etc.,
- Steps taken for clearing them from the site of accident by alternative transport or special trains.
- Expected time of departure of the unaffected coaches from the site of accident.
- Details of cancellation, diversion and termination of trains from time to time.
- Steps taken by Railways to render immediate medical attention.
- Number of passengers rescued.
- Break-up of the injured passengers (both grievous and simple).
- Name of the hospital where the injured are admitted for treatment.
- List of injured with details such as name, age, sex, compartment number, hospital name where they are undergoing treatment, etc., should be kept with the help centre at the site of accident and at important stations enroute of the train apart from originating and destinating stations of the train. In addition to this, the list shall be available with the Medical Authorities, Commercial Control and other relevant department officials.
- Contact numbers of the injured passengers.
- Communication facilities at the site of accident with landline and mobile services.
- Payment of ex-gratia.
- Facilities given to relatives / dependants and friends of the dead and injured.
- Special trains arranged for transporting the injured and friends/relatives of the injured/dead.

C. Care of the dead

- Number of dead bodies recovered and number identified.
- Railway authorities shall publish the photographs of all the dead bodies by giving number to each dead body.

- Identification of dead bodies consume more time because of the following logistics;
- They may be travelling alone.
- Their companions are injured and are not in a position to identify.
- Their companions are also dead.
- Under the above circumstances, it is possible to identify the dead only when their relatives / friends / dependants arrive at the site of accident.
- This aspect of identification of dead bodies and reasons for delay should be explained to the media.

D. Helpline enquiry booths

- Setting up of enquiry booths.
- Ensuring continuous manning of the both.
- Providing minimum infrastructure like, table, chair, various telephone calls, some registers containing the details of injured and dead, details of trains that are cancelled/diverted/terminated, contact numbers of various officials, passengers injured, FAX facility etc.,
- Internet address of the railway.

E. Press briefings at the site of accident

- DRM or his authorized representative shall collect factual information from the Site Manager and relay the same to the media and headquarters. Thus, an online communication channel will be established to keep media informed of all the important details.
- CPRO or SPRO or PRO shall be available during press briefings in Headquarters.
- There shall be a fixed time for press briefings so that there is no confusion regarding different versions given to separate channels at various points of time.
- Simultaneous press briefings shall be held at the site of accident, from Headquarters and from Divisional headquarters as per the time intimated so that the same version is given by all concerned.
- All media releases will be uploaded on the SCR web addresses and a separate web page will be opened to give specific information with regard to the accident. The priority of information release to various media will be as under:
  (1) TV Channels
  (2) News agencies like PTI, UNI etc.,
  (3) Print media
- Convenience of media shall be taken care of by PR Personnel with assistance commercial representative

****

CHAPTER XV

15.1 ROLE OF SECURITY DEPARTMENT IN DISASTER MANAGEMENT

The security on Indian Railways is being managed by 3 agencies – the Railway Protection Force, State Police and the Government Railway Police. State Police and the Government Railway Police function under administrative control of respective State Governments 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 it is very essential to effectively tackle Disaster situations.

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.

15.2 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 and arranging fire fighting 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. Dog Squad may need to be deployed even for preventive checks against terrorist activities.

15.3 CURRENT PREPAREDNESS

As per guidelines of the High Level Committee, Disaster Management Team of RPF personnel have been constituted on each Division of this 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 announcement.
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.

Co-ordination 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.

In liaison with, the National Disaster Management Authority (NDMA), 'training for trainers' has been organised so as to develop in house expertise on training. 30 categories of Security equipments have been identified as required by RPF to upgrade their effectiveness. These equipments need to be procured gradually.

15.4 INTEGRATED SECURITY SCHEME

An Integrated Security Scheme has been sanctioned for installation at 195 stations of Indian Railways. The system envisages multi-layered surveillance of vehicles, luggage and passengers in station premises. The system comprises of following broad categories:

- Internet Protocol based CCTV surveillance system with intelligence video analytics,
- Access control,
- Personal and baggage screening system,
- Bomb Detection and Disposal System.

15.5 CROWD CONTROL AND MANAGEMENT

For better effectiveness, RPF, GRP and District Police have to act in a synchronized manner in consultation with Magisterial Authorities. In Chapter 10 (Maintenance of Public Order and Tranquility) of the Criminal Procedure Code (CrPC) Part-A deals with 'Unlawful Assemblies', legal procedures are outlined in Sections 129 to 132 of the CrPC 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.

15.6 DURING FESTIVALS / MELAS – CROWD CONTROL AT STATIONS

Necessary to prescribe preventive protocols, when laid down footfalls defines separately for important stations become extraordinarily high during festivals / melas or other exceptional situations. It may not be out of place to ban all commercial vending and parcel handling on such occasions, **supplement exits if possible, and bring more are under illumination.**

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 one to two hour time slots. Unless this information is given, it would not be possible for railways to plan special trains. The OD flow of the passengers is 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 the 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 hours slots) the Railways would be unable to evacuate.

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 areas of responsibilities well defined.

The **car and other vehicle parking** facility at a station where terror strike is expected **may be discontinued**. **Sale of platform tickets can also 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 liase with GRP / RPF 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 destinations to the Operating Department Control Room.

15.7 EXPLOSION IN TRAINS AND RAILWAY PREMISES

One of the key components of the Integrated Security System is explosive detection and disposal. It provides for effective detection and disposal capability with RPF. Explosive detection and disposal, being a highly skilled and challenging job, requires Bomb Detection and Disposal Squad comprising of personnel. Such RPF personnel have been identified on each zonal railway and they are being trained in phased manner by the National Security Guard (NSG). Preventive measures to be taken in such situation, have been separately circulated vide Security Directorate Secret letter No.2003/Sec (Spl.) 200/14 dated 16.01.2008.

15.8 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 round the clock at major stations which will be of immense help to tackle such situations during initial phases especially in cases of terrorist attacks.

15.9 TERRORIST ATTACKS ON A GOODS TRAIN CARRYING INFLAMMABLES:

Railways have an excellent liaison with the Oil companies due to the transport of their commodities such as motor spirits, HSD, Naptha, etc., Traditionally, we have made use of foam-type fire extinguishers alongwith expertise in fire control available with them. Gradually, Railways may have to develop both the expertise through training in the Railways Rescue Training Institute being set up at Bangalore.

15.10 CAPACITY BUILDING TO REDUCE DESTRUCTION DUE TO EARTHQUAKES, FLOODS, etc.

RDSO has been assigned the task of identifying vulnerable buildings, locations, rail infrastructure including bridges, sensitive locations, waterways, embankments, etc., Based on this, strengthening works would be undertaken by prioritizing essential locations / buildings so as to strengthen railways infrastructure.

****

CHAPTER XVI

DO'S AND DONT'S FOR FRONT LINE STAFF
DO'S AND DON'TS FOR FRONTLINE WORKERS AND DM PROFESSIONALS

16.1 DIVISIONAL CONTROL

DO'S

- Stop movements of all trains into the affected section.
- Arrange for despatch of Medical Vans and Accidents Relief Trains to the site. In case causalities are more than fifty, ARMVs of the adjoining Divisions have to be called for. As a rough thumb rule, the scale of such assistance required would be one from a Division for every additional 50 injuries.
- Inform Divisional Officers, Central Control and controlling SM, Civil Authorities concerned.
- Collect and record systematically all developments at the site of accident.
- Advise Civil, Military, Public and Private Hospitals in the nearby areas to rush doctors, medical aid to the site.
- Arrange for rushing the required Relief & Rescue equipments to the site.
- Inform NGO's and solicit their help.
- Arrange for regulating traffic by diverting or canceling trains.
- Arrange for running duplicate / relief trains for clearing stranded passengers on overriding priority.
- Advise the stations about the changes in the train timings, train diversions etc. so that timely information is given to the public.
- Ensure that list of the injured and the dead is obtained as quickly as possible from the site and relayed to the Zonal Headquarters, concerned stations, officer-in-charge of publicity, etc.,
- Liaison with Commercial Department's emergency team and ensure that information counters are opened at the accident site and at important stations en-route for giving up-to-date information to the public.
- Guide the station staff on the correct method of train working.

DONT'S

- Lose patience.
- Ignore the safety aspects.
- Manipulate the control charts.
- Argue with the station staff.

16.2 GUARD

DO'S

- Arrange to protect the adjacent line/s and then the affected line.
- Send information through the quickest means to the Control/SMs on either side.
- Take action to save lives/render first-aid.
- Call for doctors and volunteers on the train, seek their assistance.
- Seek assistance of Railwaymen on the train for attending to the injured and for other relief operations.
- Post a railway employee to man the field telephone to ensure constant flow of information to control.
- Make a quick assessment of the assistance needed and advice control or nearest Station Master.
- Arrange protection of belongings of the passengers and railway property through RPF, GRP and other railway staff.

DONT'S

- Forget to note down the time of accident.
- Forget to preserve and safeguard all clues of possible cause of accident.
- Leave the site until permitted to do so by a competent authority.

16.3 STATION MANAGER/STATION MASTER

DO'S

- Ensure that no other trains enter the effected section and take other necessary measures for protecting the site.
- Advice the control about the accident, and type of Medical and other assistance required. Also advise the local Civil Authorities.
- Call for assistance locally from nearby hospitals, dispensaries and medical practitioners.
- Call all the 'off''duty staff including Engineering and S&T staff available in nearby areas and allot them specific duties for relief and rescue.
- Inform to Railway Rescue Volunteers Registered at the Station giving preference to doctor and other medical staff. Also to make arrangement for their transportation to site of accident.
- Arrange to provide all sort of assistance to the affected passengers such as catering, drinking water and issue of complimentary passes, arranging free messages to relatives, etc.
- Arrange for protection of both belongings of the passengers and Railway Property.
- Open information counters and booths for giving information to the public regarding names of the injured, dead etc. and about regulation, diversion of trains etc.
- Utilise STD booths located at stations for giving relevant information.

DONT'S

- Permit any train to enter in the affected section except ART/ARMV.
- Destroy railway records and clues of possible cause of accident.
- Lose patience.
- Argue or misbehave with the victims and other passengers.
- Give any statement to media and press.
- Use shortcuts and unsafe methods in train operation.

16.4 LOCO PILOT/ASSISTANT LOCO PILOT

DO'S

- Switch 'on' Flasher Light of Loco and switch off head lights.
- Note down the date & time and also hectometer Number.
- Sound short whistle frequently to want the Loco Pilot of the approaching train.
- Arrange to protect adjacent line and the same line in accordance with GR/SR 6.03 (I & II).
- Arrange to advise from Control in consultation with Guard.
- Secure the Loco properely.
- Assist the Guard in accessing the damage to Loco, Rolling Stock and P.Way and the nature required.

DONT'S

- Leave Loco unmanned.
- Interfere with any gadgets including speedometer chart.

16.5 PERMANENT WAY STAFF

DO'S

- Inspect the site and take track reading as prescribed.
- Sketch of the accident site is made and jointly signed with other Supervisors.
- Seize gange diaries, charts, curb registers, LC gate PN exchanged register and optained statement of concerned staff.
- Shall assess the damage to P.Way, sleepers and fittings.
- Condition of track including infringement if any shall be noticed.
- In case of Level Crossing accident any damage to gate equipements and infringement to LC/track shall be noted.
- He shall advise Assistance/Material required for restoration.
- Render any assistance required by 'Site Officer'

DONT'S

- Attend the affected track without clearance from competent authority.

16.6 S&T STAFF

DO'S

- Inspect point crossings and S&T gates and assists for acertaining cause of accident.
- Arrange for communication at the accident spot and manning the same.
- Render any assistance enquired by 'Site Officer'

DONT'S

- Attend or disconnect any S&T gear without getting clearance from competent authority.

16.7 ELECTRICAL STAFF

DO'S

- Provide addition lighting if required at the accident site.
- Preservation of clues in case of fire in coaches. Any statement from passengers should also be recorded with their names and addresses.
- Adequate number of breakdown staff/tower wagons.
- De-energizing and slewing the OHE, as required for ground/crane operations.
- Restoration of OHE expeditiously.
- Supervise restoration operation.
- Ensure joint observation and measurement of the electric loco involved in the accident, in the prescribed format.
- Render any assistance required by 'Site Officer'

DONT'S

- Leave the accident spot till the restoration completes.
- Attend the restoration work without permission from competent authority.

16.8 DO'S AND DON'TS FOR FRONTLINE WORKERS AND DM PROFESSIONALS

Acknowledge that it is normal to experience high levels of stress and anxieties by DM workers during these times and it is by no means a sign of weakness or a reflection on your ability to do your job.

- Acknowledge that tiredness, irritability, unhappiness, feeling 'low', sleep difficulties, lack of interest in usual activities, unexplained body aches and pains are normal reactions in stressful situations and most colleagues will feel the same way.

- Apart from physical health, take care of emotional and mental health during these times by employing positive coping strategies such as getting enough sleep, engaging in physical activities, finding respite time during work or between shifts, eating meals (ideally, healthy food, on a schedule) and staying in contact (with appropriate social distancing) with family and friends.
- Ensure that you wear adequate protective gear depending on the task given to you.

- Avoid using unhelpful coping strategies such as substance abuse.

- Speak to your co-workers. It will reduce feelings of isolation and give a sense of mutual understanding and support. It will also reveal that most of your colleagues are in the same boat.

- Try to maintain routines with families and significant others as it gives a break from work and helps to reduce overall stress.

- Monitor yourself for symptoms of depression/stress disorder such as prolonged sadness, difficulty sleeping, intrusive memories and/or feelings of hopelessness. Talk to a trusted colleague or supervisor. Be open to seeking professional help if symptoms persist or worsen over time.

- Be fortified by remembering the importance and meaning of your work. Remind yourself that despite the current challenges and frustrations, yours is a noble calling – taking care of those in need in a time of great uncertainty. Make sure to take time to recognize the efforts and sacrifices made by your colleagues.

* * * * *

CHAPTER XVII

CRISIS MANAGEMENT

17.1 DIFFERENCE BETWEEN A CRISIS AND A DISASTR:

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 higher occurrence of an event which would cause large scale devastation, damage to property and loss of human lives, etc.,

While a crisis may or may not turn into a disaster, the opposite is normally true, but with the condition the crisis situation is more in the initial stage.

17.2 BRIEF

1. Indian railways (IR) are the principal mode of transport of the country. For the last 160 years, IR has played a vital role in the overall development of the country and national integration. IR has a vast network of more than 64,000 route KMs moving an average 1.5 MTs of freight and 14 million passengers per day. In any national crisis, where major transport requirements are envisaged, Indian Railways will have to play an important role. However, Indian Railways can also get involved in a Crisis situation on account of a strike of their own employees, or due to internal disturbances, or due to external aggression, or when the flow of traffic gets disturbed.

2. There are broadly two types of crisis situation which the Ministry of Railways may be confronted with:-
   (a)When the crisis develops in the Railways which to be managed with the help and assistance of other Ministries; and
   (b)Where Railways have to help and assist other Ministries in crisis situation.

3. As far as the crisis situation at (1) above are concerned, the following situations are envisaged:
   - All India strike of Railwaymen.
   - Accidents due to chemical explosion in running train required to be dealt with on National Crisis Basis.
   - External aggression,
   - Hijacking of train(s), and
   - Disruption due to Natural factors like floods, breaches, earthquakes etc.

   Regarding (2) above, the Ministries concerned will make their own Contingency Plans bringing out the assistance that the Railways will be required to provide to them.

4. The Contingency Plan is intended to deal with the aforesaid crisis situations. The drill to be followed in the Ministry of Railways (Railway Board) as well as on the Zonal Railways in respect of crisis group, functioning of the Control room,

communication etc., are basically the same for all crisis situations and the same general drill will follow and to be supplemented by the special instructions depending upon the nature of the crisis.

17.2 MANAGEMENT OF OCCURRENCES

1. To deal with the crisis situation, the following committees shall be activated:-
   (a) National Crisis Management Committee (NCMC).
   (b) Central Management Committee (CMC), and
   (c) Zonal Management Committee (ZMC).

17.3 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:-

(i)	**All India Railway men's strike**:	Member Staff Member Mechanic (Alternate).
(ii)	**Accident on Railways** :	Member Traffic Member Mechanic (Alternate).
(iii)	**Terrorism / security related**:	Member Staff, Member Traffic (alternate)
(iv)	**Disruption due to Natural factors like floods, breaches Earthquakes etc.,**	Member Engineering, Member Traffic (Alternate)
(v)	**Crisis where railways have to help other ministries**	Member Traffic Member Staff (Alternate)

RESPONSIBILITIES:

(i) **All India Railwaymen strike**: Ministry of Railways is the nodal ministry.
(ii) **Accidents on railways**: Ministry of Railways is the nodal ministry.
(iii) **Terrorism / Security related**: Ministry of Home Affairs is the nodal ministry but Railways have to maintain liaison and flow of information.
(iv) **Natural factors leading to traffic disruption**: Ministry of Home Affairs is the nodal ministry but Railways have to maintain liaison and flow of information for assistance to restore the affected railway system.
(v) **Crisis where Railways have to help other ministries**: Concerned ministries will make their own Crisis Management Plans bringing out the assistance that the Railways will be required to provide to them.

Names, telephone numbers and addresses of the Members/alternate members, who will represent the Ministry of Railways in NCMC are contained in **Annexure-I.**

17.4 CENTRAL MANAGEMENT COMMITTEE (CMC)

The CMC is the Executive Authority responsible for dealing with the crisis and shall work under the broad guidelines and directives issued by NCMC. It shall be in constant touch with the NCMC on the one hand and the concerned Zonal

Management Committee on the other. In addition to the concerned officers of the Railway Ministry, help of officers from some other Ministries is to be sought through National Disaster Management Control Room at North Block, New Delhi **(Annexure II)** for effectively dealing with the various crisis situations. The overall composition of the Central Management Committee including the names, telephone numbers and addresses of its members for dealing with various crisis situations are given in the enclosed Annexures.

Crisis situation	**Convener/ Overall composition of The Central Management Committee**
(i) All India Railwaymen Strike	**Additional Member (Staff)/ Annexure – III**
(ii) Accidents on Railways	**Adviser (Safety)/ Annexure – IV**
(iii) Hijacking of trains	**Director General (RPF)/ Annexure – V**
(iv) External Aggression	**Director General (RPF)/ Annexure – VI**
(v) Disruption due to Natural factors	**Additional Member Engineering)/like floods, breaches, earthquakes etc. Annexure - VII**
(vi) Where Railways are to assist others	**Additional Member (Traffic)/ Annexure – VIII**

a. The list/names of the Members of the CMC will be updated and circulated by the **Safety Directorate of Railway Board** every year in January.

b. NDM division of Ministry of Home Affairs is the nodal agency for mustering Assistance from other Ministries. Contract details of NDM control Room and their officers are given in Annexure II who should be contacted at the earliest telephonically and through fax for taking assistance from other Ministries. Ministry of Defense can also be simultaneously contacted for air support and/or for expert help like divers, boats etc. The contact details of the officers of the concerned Ministry can be taken from NDM Control Room for further follow up after the railways communication has been passed onto them.

c. Members of the CMC will assemble in Emergency Control Room of Railway Board in Room No.474P (Telephone Nos. Railway 43399, 43599; P&T 23382638, which is located on the fourth floor of Rail Bhavan, at Raisina Road, New Delhi-110 001.

d. The Zonal Management Committee (ZMC) shall be established at the Zonal Railway Headquarters and would comprise of the following Officers of the Zonal Railway Headquarters.

(i)	Principal Chief Engineer	:	Converner
(ii)	Senior Dy. General Manager	:	Member/Alternate Convener
(iii)	Chief Operating Manager	:	Member
(iv)	Chief Mechanical Engineer	:	Member

(v) Chief Electrical Engineer : Member
(vi) Chief Signal & Telecommunication Engineer: Member
(vii) Chief Security Commissioner : Member
(viii) Chief Safety Officer : Member
(ix) Chief Public Relations Officers : Member
(x) Chief Commercial Manager : Member
(xi) Financial Adviser & Chief Accounts Officer: Member

e. The Zonal Management Committee will assemble in the Emergency Control Room of the Zonal Railway Headquarters and will keep in touch with CMC till the termination of the crisis.

17.5 PROCDURE ON THE OCCURRENCE OF CRISIS

a. Information of the occurrence of crisis, whether on the Railways or outside the Railways, for which Railways assistance is necessary, should be conveyed to the Emergency Control Room at Room No.**476-P** in Rail Bhavan (P&T Phone No. **23382638** and Railway Phone No.**43399, 43599**) which is manned round the clock. The official in-charge of the Emergency Control Room would immediately inform all the Members of CMC by the quickest possible means and give brief information about the nature of the crisis. Simultaneously, the Members of the ZMC of the concerned Railway(s) would also be informed through the official in-charge of the Emergency Control Room of the Zonal Railway Headquarters.

b. All the Members of the ZMC will assemble in the Emergency Control Room at their respective Railway and the Members of the CMC will assemble in Room No. 476P of Rail Bhavan. The Convener of CMC or his representative will convey the information to the Members of NCMC on the one hand and the concerned ZMC on the other. Members of CMC will co-ordinate with other ministers including National Security Guard (NSG) (if needed) to muster all possible assistance in the most expeditious manner.

c. The ZMC will ensure that all the available information relating to the crisis is furnished to the Convener of the CMC either directly, or through the Central Control.

d. The CMC shall consider the situation and give such guidelines as may be necessary to the ZMC. When a situation is of an extremely urgent nature which does not permit adequate time to consult the CMC, the ZMC shall handle the situation in the best possible manner and as per the extant instructions laid down for dealing with the crisis situation.

e. As soon as the report about the crisis is received, the Emergency Control Room working in the Rail Bhavan (Room No.**474 P**) will be upgraded and will be manned round the clock under the charge of an Emergency Officer, not below the rank of Joint Director in each shift.

f. The main functions of the Emergency Control Room will be as under:-
(a) To get situation reports on a continuous basis from the site:
(b) To keep all the concerned Officers of the various disciplines in the Railway Board as also in the concerned Ministries informed of the developments:

(c) To convey instructions and guidelines to the Officers In-charge of Relief Operations at site:

(d) In case where Railways have to help and assist other Ministries in crisis situations, the Central Control Office will maintain continuous liaison with the Nodal Ministry dealing with the crisis situation, and arrange assistance from the Railways as per the requirements and in coordination with the Nodal Ministry.

g. The Emergency Control Room at Rail Bhavan will have the names and telephone Nos. of all the Members of the CMC to deal with the various crisis situations. On being informed about the development of the crisis situation by the Official In-charge of Emergency Control Room, the Joint Secretary, Railway Board, will make available adequate numbers of transport and Typists/Stenographers for working in shifts, round the clock with the Emergency Control Room for efficient discharge of its functions.

h. MEDIA

In order to avoid any panic and also with a view to conveying correct information to members of public, the ZMC and CMC will nominate senior officers of the Public Relations Department, at all three places, i.e. the crisis area, the ZMC. Headquarters and CMC Headquarters to co-ordinate the activities of Media and for issuing information bulletins at proper intervals.

17.6 GENERAL INSTRUCTIONS FOR DEALING WITH VARIOUS CRISIS SITUATIONS

A. ALL INDIA RAILWAY MEN STRIKE:

- The composition of the Central Management Committee to deal with the crisis situations is given at **Annexure – II**
- Instructions will be conveyed to all the ZMCs to implement the 'Strike Scheme' (already available with the Zonal Railways) at all levels.

B. ACCIDENT ON RAILWAYS

- The composition of the CMC to deal with this crisis situations will be as per **Annexure-IV**
- The Railways have issued elaborate instructions for dealing with the crisis arising out of train accidents. The duties required to be performed by the staff and officers are exhaustively covered in the Accident Manual issued by the Railways.
- However, there are certain crisis situations where assistance of a more elaborate nature may be necessary from outside Ministries or other agencies e.g. fire in train carrying petroleum products, chemical explosions on the Railways, large scale sabotage involving blowing up of bridges and tracks, which may have to be tackled at the National Level. Under such situations, Railways need to take the help of other Government and Non-Government Agencies for their expertise. Contact details of all such agencies should be included in the Disaster management Plane of Zonal railways and divisions

which should be updated once every year in January. In addition to the hard copies, Railways should also have the web-based electronic versions of Disaster management Plans on their Railnet server for expeditious search of the key information at the time of Crisis.

- Sabotage would normally result in three types of situation:-
  (a) Sabotage of track/bridge.
  (b) Sabotage of track/Bridges resulting derailment of a passenger train, and
  (c) Sabotage or explosion on the Railway Platform(s) or adjacent Railway Premises.

Under these situations, the instructions contained in the Railway Accident Manual would be applicable with suitable modifications as required by local circumstances. In these situations the GRP and Civil Police would pay a more important role as they would be investigating the criminal case relating to sabotage/explosion, which would need a lot of assistance from the railway authorities. While Co-ordination among different railway agencies would be done by the senior-most railway officer present at the site, he should specifically nominate a senior RPF officer to coordinate with the police agencies.

In cases of large-scale incidents of sabotage or explosion on railways, requiring assistance from Ministry of Home Affairs, Cabinet Secretariat and the State Governments, Director General, Railway Protection Force, will coordinate on behalf of the Railways.

- Railway 'Red tariff book' lays down elaborate rules regarding carriage of explosives and dangerous goods and is updated from time to time. These rules lay down various precautions to be taken regarding acceptance, packing, handling, labeling, storage, types of wagons to be used, shunting and delivery of such goods. These rules have been framed in consultation with the Chief Inspector of Explosives, who also has a right of inspection, search, seizure etc. of such dangerous goods. This publication is available with all the Railway Stations and lists out the commodities under the following 7 heads:-
  (i) Explosives,
  (ii) Gases; compressed, liquidified, or dissolved under pressure,
  (iii) Petroleum and other inflammable liquids,
  (iv) Inflammable solids,
  (v) Oxidizing substances,
  (vi) Acids and other explosives, and
  (vii) Poisonous (toxic) substances.

- The Action Plan/Guidelines framed by the respective Ministries in respect of accident(s) involving radio-active elements, poisonous chemicals etc, while in storage or in transit with the Railways, would be followed. The necessary directions in this regard will be incorporated in the Contingency Plan in due course on receipt of the relevant details from the concerned Ministries.

17.7 HIJACKING OF TRAIN

- The composition of the C.M.C. to deal with this crisis situation is given at Annexure-V.

- **INFORMATION**

On receipt of information about hijacking of a train(s) at any railway establishment(s), it should be immediately passed on to the concerned Divisional Railway Control Room, which in turn will immediately pass it on to the Emergency Control Room of the Zonal Railways Headquarters, and the Emergency Control Room of the Railway Board at Rail Bhavan.

Liaison Officer nominated at the Zonal Railway Headquarters will immediately pass on the information to Headquarters NSG at CGO Complex New Delhi to enable the TASK FORCE to move by the fastest mode of transport, to carry out detailed rescue and planning.

NSG Duty officer in the Control Room which is operational round the clock can be advised on the following telephone numbers:-

Telephone Nos. 24360021 (Control Room), **24361093 (O); 26175520 (R)**

Task Force should continue to carry out planning and rehearsals concurrently while negotiations with the hijackers are in progress.

Simultaneously, Disaster Management Control Room in Ministry of Home Affairs, North Block, and New Delhi which is operational round the clock must be advised. **(Annexure – II).**

- The Divisional Railway Control Room will also simultaneously communicate the information regarding the crisis to the following:
  (i) All Branch Officers of the Division including Security.
  (ii) District Magistrate concerned;
  (iii) District Superintendant of Police concerned;
  (iv) Divisional Medical Officer (Railways), and if necessary, to District Civil Surgeon concerned.
  (v) Chief Fire Officer of the District concerned.
- The Officer In-charge of the Emergency Control Room of the Zonal Railways Headquarters would immediately pass on this information to all Members of the Z.M.C. The convener of the Z.M.C., besides passing on immediately the information regarding the crisis and the developments threat to Convener of C.M.C. will also pass on the same to the following:
  (i) Chief Secretary,
  (ii) Director General of Police.
- The Officer In-charge of the **Emergency Control Room at** Railway Board will immediately pass on the information to Convener and other Members of C.M.C. The Convener his representative will convey information regarding the crisis situation to the Members of N.C.M.C.

17.8 ISOLATION AND CORDONING OF THE CRISIS AREA

The Divisional Railway Authorities in coordination with the District Magistrate and District Police Authorities, will immediately make arrangements for isolating cordoning of the crisis area. They will also keep Units of Emergency Services, like Fire and Medical, available at the spot to meet the exigency. The local authorities including Police and RPF must not take any action, which could precipitate the situation

especially if the hijackers appear to be desperate and determined. The situation thereafter would be handled by Z.M.C. and C.M.C.

17.9 NEGOTIATIONS

Since negotiations in such situation required a special skill, the C.M.C. will requisition the services of skilled negotiators through N.C.M.C. The negotiation team would be organized and handled by NSG.

17.10 REQUISITION OF THE TASK FORCE

- While the negotiations with hijackers are in progress, the C.M.C. which would be in constant communication with N.C.M.C. would give, if considered necessary, requisition for the Task Force to N.C.M.C. The Task Force i.e., N.S.G. would be provided only with the approval of N.C.M.C. In case it is decided to despatch Task Force to the crisis area, the C.M.C. will make immediate arrangements to provide information, as given at **Annexure IX,** to the Task Force. The C.M.C. will also make arrangements for providing necessary assistance to the Officer In-charge of the Task Force in respect of transport, accommodation and other facilities at the spot. The details of assistance required by the Task Force are at **Annexure-X.** Thereafter, the Task Force will take charge of the situations/s.
- Situation will only dictate the composition of the Task Force, hence no set composition is recommended.

17.11 COMMUNICATION

- Initially the Divisional and later on Z.M.C. and C.M.C. will ensure that an efficient communication net work is established between crisis area and Z.M.C. Headquarters between Z.M.C. & C.M.C. Headquarters and between C.M.C. & N.C.M.C. Headquarters. Once the Task Force (N.S.G.) takes over, it will establish its own channel of communication from the crisis and will keep in touch with C.M.C. and N.C.M.C.
- After the Task Force (NSG) takes over, communications are to be maintained as follows:-

  Railways to continue operating their exiting channel from Crisis Area. Task Force to be in communication with Headquarters (NSG) Ops *to* RS Harris, and
  - The Railway will provide STD facilities to the Task Force Commander wherever operating.
  - Once the NSG start their operations, NSG Operation Commander will give directions and will be totally in command. As far as secrecy etc is concerned, this will be the responsibility of the NSG. Railway communications system can at best be a parallel communication system, as a standby to used as and when required.
  - The composition of the CMC to deal with the crisis situation is given at **Annexure-VI.**
  - The Railway Ministerial War Book contains instructions for dealing with the situations that may arise out of a war which, inter-alia, include the modality of regulating transport including inland water transport during the War Situations,

Railways will initiate action to mobilise stock for the movement of troops and equipment, to regulate other traffic as required and protect their vulnerable installations in accordance with the guidelines given in the War Book, a copy of which is available with all the Zonal Railways and Production Units etc. The ZMC as well as the Sub-Committees at the Divisional level will monitor the movement of the troops and material in coordination with the Defence and State authorities.

17.12 DISRUPTION DUE TO NATURAL FACTORS LIKE FLOODS, BREACHES, EARTHQUAKES etc.

The composition of the CMC to deal with the crisis situation is given at **Annexure-VII.**

17.13 CONTINGENCY PLAN WHERE RAILWAYS HAVE TO HELP AND ASSIST OTHER MINISTRIES IN CRISIS SITUATION:

- Ministry of Railways will provide emergency support and assistance to other Ministries mostly in regard to rail transportation. For this purpose Ministry of Railways has issued an Emergency support Function Plan (ESF) vide 2003/Safety (DM)/6/3 dated 25.10.04 nominating Quick response Teams (QRTs) at the Ministry level and Zonal railway level as well. QRT at the level of Ministry of railways is CMC for dealing with the crises situation to help other Ministries is given at **Annexure-VIII.**
- The CMC will obtain directions from NCMCs and organize the necessary relief operations through field level QRTs.
- The concerned Ministry will make their own Contingency Plan bringing out the assistance required from the Railways, which will be mobilized.

17.14 DRILL FOR HANDLING CRISIS:

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

17.15 HIJACKING OF TRAINS

The information required can be categorized as under: The information to be furnished has to be specific and clear with visual orientation (road maps etc) necessary pre-arrangements for which should be institutionalised well in advance before the crisis actually strikes.

(a) **Information required by Task Force**:

(i) Location of train.

(ii) If moving, location where Railway authority plan to stop hijacked train.

(iii) Is intervention contemplated on moving train? If so, availability of ***heliports*** and allied facilities, since Heliborne intervention may have to be resorted to.

(b) Information about the terrorists:

(i) Number of terrorists
(ii) Identity of terrorists including dress worn or any other specific details which could help in their identification.
(iii) Details of weapons being carried including explosives/grenades, if any.
(iv) The group to which the terrorist belong, including their involvement in any previous activity.
(v) Rough position of the terrorists in the coach.

(c) Information about the coach/compartment

The details of coach in which the hostage are held to include the following:

(i) Type of Coach/Compartment e.g. First Class, Air Conditioned sleeper, etc.
(ii) No. of sub compartments.
(iii) No. of doors and window including type of window e.g. glass of double glass.
(iv) No. of toilets.
(v) Information about vestibules.
(vi) Whether the Coach/Bogie has been detached or is along with the train.
(vii) If along with the train, the number of bogies in the train and the bogie number from the engine.

(d)

(i) No. of Hostages
(ii) Status of Hostage/Hostages
(iii) Age and Sex of the Hostages
(iv) Location within the coach

(d) Details about the site

(i) Details of the area where the Coach/Train is halted/isolated
(ii) Vintage points in terms of building etc. in the close vicinity for deploying of snipers
(iii) Whether the train/Coach is on the platform or is in open space.
(iv) Cover available for approaching the site.

(f) Details of Assistance available from Railways

(i) Availability of flood lights including generator.
(ii) Availability of Oxyacetylene Cutters.
(iii) Railway Telecommunication.
(iv) Demands of terrorists including the dead line set by them for negotiations.

17.16 HIJACKING OF TRAINS

Assistance required by the N.S.G.

(a) 3 Rooms with communications for setting up Ops Room Complex for the following:
(i) Common Control Center.
(ii) Ops Room
(iii) Room for Task Force Cdr.

(iv) Dark Room.

(v) Rest Room approximately 150 persons and Arrangements for food as available to the other Railway employees at the site.

Provision of rest facilities operations room and dark room etc will depend on the situation. If suitable covered area is not available, NSG will manage with their own tented accommodation for which only some open space will be necessary.

(b) Transport *to* move to outstation: As a rough guideline, following would be required:

(i)	Cars	…..	2
(ii)	Jeep/Light Vans	…..	2
(iii)	Matadors	…..	3
(iv)	Busses	…..	2
(v)	Medical vehicles	…..	2

(c) Detailed layout of the coach

(d) Details of the location where the coach/train has been stopped.

(e) One senior contact officer from the Railways based in Delhi, officially designated as the representative for coordination with the NSG. His name should be in intimate to the NSG.

(f) Chief Security Commissioner on the Zonal Railways and Addl. DG/RPF (Headquarters) in Railway Board will function as Liaison officers and would brief the Task Force about all aspects of Hijacking.

****

CHAPTER XVIII

DISASTER MANAGEMENT TRAINING

18.1 DM TRAINING ON RAILWAYS:

18.1.1 National Institute of DM (NIDM):

NIDM has been envisaged as apex body on DM training and research in the country under the DM 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 DM at IRITM, Lucknow. Most of the States have also DM Training Institutes funded by the Centre.

18.1.2 DM Training on Zonal Railways and divisions:

With the enactment of the DM Act, Indian Railways have also taken several initiates to revamp DM training. Presently, training on DM of various tiers of railway officials does not envisage neer concepts like integration of disaster agencies, etc., Till now any training on the subject of DM implied subjects connected with train accidents only. There was no training given for natural calamities or for terrorism related items. With the adoption of this concept, the training requirements for lower, middle and higher management officials of the railways need to be re-oriented t cover these concepts. Hence, the subjects of DM are most vast and varied. However, even tome of the railway staff need are given training only on the older older concept, i.e., on a limited syllabi of management of a train accident. Amongst the staff which falls in the category are the frontline staff (and their supervisors) either travelling on the train or available on line.

It has also not yet been possible to narness availability and strengths of railway on-board staff who are the first railway responders during a serious accident. With this in view, Board have decided to revamp the raining on DM being imported during a serious train accident. With this in view, Board have decided to revamp the training on DM being imparted to several tiers of railway officials through railway training institutes as indicated below;

S. N.	Categories of Officials	New training methodology and schedule
1	**Top Level Management (GMs, PHODs, DRMs and other SAG/S4 Officers)**	5 – Day DM 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)**	Some of the latest and relevant topics are to be included in the AMP and MDP programmes being delivered at RSC/BRC. IRITM/LKO will also deliver special module being developed by them @ one course every month. **FREQUENCY OF TRAINING:** Every SG/JAG officer need to undergo the module once every 5 years either at RSC as regular MDP/AMP course or special DM module at IRITM.
3	**Lower level management (SS & JS Officers including serving Group 'B')**	DM training at IRITM/LKO @ one course every month. **Frequency of training: Once every5 years.**
4	**Probationers and Group 'B' Officers attending induction courses.**	Topics listing detailed instructions are to be covered during the regular training programme at RSC/Vadodara. **Frequency of training: As part of the course.**
5	**Supervisors of all frontline departments (Mechanical, Electrical, Engineering, Traffic Commercial & Operating and S&T)**	One week course at ZRTIs @ one every month. Passing this course is compulsory for promotion to SE and above. **Frequency of training: Once in 5 years.**
6	**Railway staff on board passenger carrying train (TS, Dy.TS, TTEs & Catering staff of Commercial, Coach Attendants and AC Mechanics, some of the selected coach cleaners of Mechanical, some of the RPF Escorting staff and catering staff of contractor wherever outsources)**	DM being a multi-disciplinary 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 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 multi-disciplinary 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., Such training can be imparted at the selected country-wide locations to cover maximum number of staff in short period of time. This training can also be imparted in the Customer Care Institute. Only few select staff of Mechanical, Electrical (AC), RPF is to be 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 be imparted

		this training in Phase-2 to leverage their physical presence. **Frequency of training: Once every 3 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 DM Railway Institute, 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 3 years.**
8	**DM team of RPF staff and other RPF personnel associated with relief rescue operations.**	As per recommendation No. 46 of HLC on DM there should be a DM team of RPF on each Division comprising about 15 men in different ranks. Such teams should be trained in providing necessary support on relief rescue operations. The existing 5 day training module should be appropriately revised to make it suitable to achieve the above objective. Each of the above teams should be trained on this module at RPF Academy at Lucknow. In addition, training module may be appropriately developed separately for RPF Officers and staff and should be imparted t 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 3 years for DM team of RPF. **Once every 5 years for other RPF Officers and staff.**
9	**RPF Officers**	DM training for RPF Officers may be also organized in IRITM till such time the capability in RPF Academy is developed.

NOTE: 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, firefighting equipment, etc., A nodal training institute for specialized rescue / extrication, etc., for Officers and Sub-ordinates is being set up in Bangalore; the work on this institute is being coordinated by Mechanical (Traction) Directorate, Railway Board.

IRITM/LKO has been nominated as the nodal centre for training on general aspects of DM for the senior and middle level officers (including senior management level Officers). Training modules are being set up at ZRTI/Udaipur and Bhuli for DM training of other Railway Officials.

Respective training instructions on each Zonal Railway will ensure that the modules prescribed above are institutionalized and officials are imparted training to build the capacity on DM on human resource front.

****

CHAPTER XIX

MANAGEMENT OF RAIL DISASTER IN TUNNEL / DEEP CUTTING OR IN A WATER BODY

19.1 Expertise to handle rail disasters in tunnels, etc.,:

The Railways have no expertise or infrastructure to handle a train disaster if it occurs in a tunnel or in a deep cutting not approachable by land. No machinery or earth moving equipment is available on IR which would be mobilised for this job. Help of other stakeholders or of NDRF has to be taken for this.

19.2 Ventilation arrangements in tunnels:

Adequacy of ventilation arrangement and its efficient operation is always a matter of concern especially in very long tunnels. There are ventilation systems installed with alarms to warn the control room in case of any mishap.

In case a train stalls in long tunnel due to derailment / fire or any other unusual condition, automatically alarm will be sounded in the control room to alert the ventilation operator / controller or if Guard / LP of a train or any other person gives such call on ‘emergency’ telephone, the ventilation operator should control the ventilation in tunnel as per the procedure given.

19.3 Lighting system in tunnels for use in emergency:

Depending on length of the tunnel, emergency lighting arrangements may be provided to give immediate assistance in handling a disaster.

****

CHAPTER-XX

NDMA POLICY

(POLICY, OBJECTIVES GUIDING THE POLICY FORMULATION, FUNCTIONS AND RESPONSIBILITIES, DISASTER MANAGEMENT CYCLE)

20.0 INTRODUCTION

Policy & Plans Division deals with all matters pertaining to formulation of policies and guidelines as well as approval of plans of all Central Ministries and Departments. Mainstreaming disaster management in development plans is also an important function of this division. As work involved in these fields is enormous and requires a very dedicated effort by all the Ministries and Departments, this division works in a proactive manner with all the stakeholders.

Public Relation & Awareness Generation Division deals with all matters in which NDMA takes the lead in preparing the community and sensitizing all stakeholders, Ministries, Departments and States that are closely involved as partners. It does this through extensive exploitation of media, both electronic and print at both regional and national levels. It also uses other ingenious methods such as publication of brochures, leaflets, posters, street plays, etc.

20.1 POLICY

The National Policy framework has been prepared after due deliberation and keeping in view the National Vision to build a safe and disaster-resilient India by developing a holistic, proactive, multi-disaster and technology-driven strategy for DM. This will be achieved through a culture of prevention, mitigation and preparedness to generate a prompt and efficient response during disasters. The entire process will centre-stage the community and will be provided momentum and sustenance through the collective efforts of all Government Agencies & Non-Governmental Organizations'. In order to translate this vision into policy and plans, the NDMA has adopted a mission-mode approach involving a number of initiatives with the help of various institutions operating at the national, state and local levels. Central ministries, States and other stakeholders have been involved in the participatory and consultative process of evolving policies and guidelines

This Policy framework is also in conformity with the International Strategy for Disaster Reduction, the Rio Declaration, the Millennium Development Goals and the Hyogo Framework 2005-2015. The themes that underpin this policy are:-

- Community-based disaster management, including last mile integration of the policy, plans and execution.

- Capacity development in all related areas.
- Consolidation of past initiatives and best practices.
- Cooperation with agencies at the national, regional and international levels.
- Compliance and coordination to generate a multi-sectoral synergy.

20.2 FROM THE NATIONAL VISION AND THE THEME MENTIONED EARLIER, THE OBJECTIVES GUIDING THE POLICY FORMULATION HAVE EVOLVED TO INCLUDE:

- Promoting a culture of prevention and preparedness – by centre-staging DM as an overriding priority at all levels and at all times.
- Encouraging mitigation measures based on state-of-the-art technology and environmental sustainability.
- Mainstreaming DM concerns into the development planning process.
- Putting in place a streamlined institutional techno-legal framework in order to create and preserve the integrity of an enabling regulatory environment and a compliance regime.
- Developing contemporary forecasting and early warning systems backed by responsive and fail-safe communications and Information Technology (IT) support.
- Promoting a productive partnership with the Media, NGOs and the Corporate Sector in the areas of awareness generation and capacity development.
- Ensuring efficient response and relief with a caring humane approach towards the vulnerable sections of the society.
- Making reconstruction an opportunity to rebuild back better and construct disaster-resilient structures and habitats.

20.3 FUNCTIONS AND RESPONSIBILITIES

NDMA, as the apex body, is mandated to lay down the policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters. Towards this, it has the following responsibilities:-

- Lay down policies on disaster management ;
- Approve the National Plan;
- Approve plans prepared by the Ministries or Departments of the Government of India in accordance with the National Plan;
- Lay down guidelines to be followed by the State Authorities in drawing 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;
- Coordinate the enforcement and implementation of the policy and plans for disaster management;
- Recommend provision of funds for the purpose of mitigation;
- Provide such support to other countries affected by major disasters as may be determined by the Central Government;
- Take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with threatening disaster situations or disasters as it may consider necessary;

- Lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management.

DISASTER MANAGEMENT CYCLE



A holistic and integrated approach will be evolved towards disaster management with emphasis on building strategic partnerships at various levels. The themes underpinning the policy are:

- Community based DM, including last mile integration of the policy, plans and execution.
- Capacity development in all spheres.
- Consolidation of past initiatives and best practices.
- Cooperation with agencies at national and international levels.
- Multi-sectoral synergy.

****

CHAPTER XXI

NDMA GUIDELINES ON INCIDENT RESPONSE SYSTEM (IRS)

21.1 Disaster risk in India:

India is vulnerable, in varying degrees to a large number of natural as well as manmade disasters. As stated in the National Policy on DM, 2009, in India, 58.6% of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectors (12% of the land) is prone to floods and river erosion; of the 7,516 KMs long coastline, close to 5,700 KMs is prone to cyclones and tsunamis; 68% of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. In the context of human vulnerability to disasters, the economically and socially weaker sections of the population are the ones that are most seriously affected.

21.2 Overview of Incident Response System (IRS):

The IRS is an effective mechanism for reducing the scope for ad-hoc measures in response. It incorporates all the tasks that may be performed during DM irrespective of their level of complexity. The main purpose of these guidelines is to lay down the roles and responsibilities of different functionaries and stakeholders at State and District levels and how it coordinates with the multi-tiered institutional mechanisms at the national, state and district level will be done. It also emphasizes the need for proper documentation of various activities for better planning, accountability and analysis. It will also help new responders to immediately get a comprehensive picture of the situation and go in for immediate action.

21.3 IRS Organisation:

The IRS Organisation functions through Incident Response Teams (IRTs) in the field. In line with our administrative structure and DM Act of 2005, responsible officers have been designated at the state and district level as overall in-charge of the incident response management. The responsible officers may however, delegate responsibilities to the incident commander, who in turn will manage the incident through IRTs. The IRTs will be pre-designated at all levels; state, district, sub-division and Tehsil/block. On receipt of early warnings, the responsible officers will activate them. In case a disaster occurs without any warning, the local IRT will respond and contact responsible officers for further support, if required. The nodal officer has to be designated for proper co-ordination between the district, state and national level in activating air support for response.

21.4 Features of IRS:

IRS is categorized with features like management by objectives, unity of command and chain of command, organizational flexibility, span of control, unified command, accountability, rescue management, etc.,

21.5 Summary of Action Points:

IRS constitutes an important part of the disaster response at the state and district level. These guidelines will help the states and districts in their disaster response. It will also help to reduce chaos and confusion during response. The important thing is to get the team members trained in their respective roles. A time bound strategy with fixed responsibilities is essential to achieve this objective.

****

CHAPTER XXII

NDMA GUIDELINES ON SCALING, TYPE OF EQUIPMENT AND TRAINING OF FIRE SERVICES

22. 1 Emergent needs and recent initiatives:

Recent and earlier fire incidents have clearly demonstrated some of the major shortcomings in our fire fighting capabilities along the length and breadth of the country. The recent fire incident in a hospital in Eastern India has added another dangerous possibility and dimensions to fire accident. Unless there is a conscious and planned effort in all the states, the fire fighting capabilities of the country are not likely to improve and an unacceptable number of deaths along with huge loss of property will continue to occur. T prevent such unwarranted deaths and loss of property there is an urgent need therefore, to start a planned and determined move towards revamping and fire services in India.

22.2 Enactment of Fire Act in every State:

It is sad that in many states even today a comprehensive Fire Act does not exist. Considering the increasing vulnerabilities to fire all over the country, it is of utmost importance that every state enacts its own Fire Act so that fire vulnerabilities in the state are adequately dealt with and unacceptable loss of life and property is prevented. The Government of India had prepared a draft model fire bill and circulated to all the states way back in 1958. The states which have not enacted their own Fire Act should immediately enact a suitable Fire Act within a year.

22. 3 Fire Hazard Response and Mitigation Plan:

Fire hazard response and mitigation plan should include a calendar of activities for mass awareness and inspection of fire fighting facilities and equipment especially in schools, busy shopping malls, high rise buildings and residential clusters to reduce the fire accidents by controlling it in time. Fire hazard response and mitigation plan broadly includes availability of infrastructure, health care system, industrial locations, school and educational institutions, resource and institutions that can help and support the fire hazard response system, risk and vulnerability assessment, identify the role of the Government Departments, NGOs, expert agencies, continuous evaluation and monitoring is necessary.

22.4 Training:

The aim of training is to ensure that all fire service personnel are given the necessary exposure to develop the knowledge, skills, attitude, physical fitness, vision

and mental alertness that they require to carry out their jobs efficiently and provide every opportunity for career development. The role of Fireman in fire services is to extinguish fire, rescue trapped persons, provide medical first aid and also respond to the various manmade fire accidents and natural disasters. The roles cannot be performed well until and unless sufficient training is imparted to the fire service personnel. The type of training, duration, etc., will depend upon the level of entry.

22.5 Scaling of Fire Stations, Equipment and Manpower:

Operational efficiency of any fire service depends to a large extent upon the location of fire stations in relation to the entire area and population which is required to be protected by the fire station. In the cities with population of more than one million, the type of hazard may be termed as either high or moderate. In the areas of high fire risk, the scale the type of fire station and additional firefighting and rescue equipment should be determined by an actual survey of the area by fire experts. The key to proper response in disasters lies equally in a good communication set up. the fire services need to have all possible connectivity like telephone, fax, computerized voicelogger, GIS, HAM Radio, static and mobile wireless sets like Tetra system and satellite based communication. It is recommended that a standard 3 watch duty system should be introduced in fire services in which the first watch should be on duty for 24 hours at a stretch. On being relieved by the second watch, the fire watch should be on 4 hours off duty and again come on duty for 8 hours on the third day. Similarly, the second watch on being relieved by the third watch should remain off duty for 24 hours and come on 8 hours duty on the third day and so on.

****

CHAPTER-XXIII

GUIDELINES ON PREVENTION & MANAGEMENT OF THUNDERSTORM & LIGHTNING/SQUALL/DUST/HAILSTROM & STRONG WINDS

23.1 Definition of Thunderstorm: A thunderstorm is said to have occurred if thunder is heard or lightning is seen. Usually, the thunder can be heard up to a distance of 40 km from the source of origin. Thunderstorms fall in the category of **Meso-gamma weather systems** with a spatial extent of around 2-20 km and temporal scale of a few hours. These are of two types-

1. **Moderate thunderstorm*:*** Loud peals of thunder with associated lightning flashes, moderate to heavy rain spells and maximum wind speed of 29 to 74kmph.
2. **Severe thunderstorm**: Continuous thunder and occasional hailstorm and maximum wind speed exceeding 74kmph.

Thunder storms occur round the year in different parts of the country. The frequency and intensity are maximum during summer months (March to June) as the most important factor for the occurrence of thunderstorms is the intense heating up of the atmosphere at the surface level.

Thunder storms have some typical characteristics such as the formation of the squall strongest updraft and down draft; towering cumulonimbus clouds associated with turbulence and icing in- cloud electrification and associated lighting.

The “Guidelines for preparation of Action plan” – Prevention and Management of Thunder storm and Lighting aim to facilitate and improve the capacity of the divisions/Zones in preparing their action plan and respond promptly and effectively to mitigate the adverse effects of these incidents.

23.2 Definition of ‘Lightning’: - **Lightning** is a high-energy luminous electrical discharge accompanied by thunder.

It is of three types:

1) Thundercloud or Intra-Cloud Lightning(IC)
2) Cloud-to Cloud or Inter – Cloud Lightning(CC)
3) Cloud-to-Ground **L**ightning (CG)

Among the three, third type of lightning takes a toll on lives and property, and therefore, is of more concern to us. Inter-Cloud and Intra-Cloud lightings are also dangerous as they may hit aircrafts. These are also the precursor to Cloud-to- Ground lightning.

Peak currents in a lightning discharge range up to hundreds of Kilo Amperes (KA) with its typical value being 40KA. Predicting the precise time and location of lightning is very difficult. However, a season or a period of lightning occurrence is known for many regions.

Lighting is yet another weather related disaster associated with thunderstorms. Lightning occurs due to electrically charged regions in a cloud which is called intra-cloud lightning (IC) or between cloud to cloud (CC lightning) or between a cloud and the ground (CG lightning). A lightning flash becomes a strike if it involves an object on the ground.

The low of electric charges can affect any electrically conductive body. Hence electrical appliances if operated during lightning can after their normal functioning and have a risk of becoming faulty. Similarly, living beings coming in contact with lightening, either directly or indirectly through electrical conductors, can be affected, which may lead to severe burns or even death.

Rural and forest areas are the most vulnerable given the presence of tall trees and water bodies. A majority of the lightning victims are people working in the fields in rural areas.

23.3 Definition of Squall (Storm): - A Squall is defined as a sudden increase of wind speed of at least 29 KMPH (16knots) with the speed rising to 40KMPH (22knots) or more and lasting for at least one minute.

It is of two types:

1. **Moderate Squall**: If the surface wind speed (in gusts) is up to 74 KMPH.
2. **Severe Squall:** If the surface wind speed (in gusts) is greater than 74 KMPH**.**

Rural and forest areas are the most vulnerable given the presence of tall trees and water bodies. A majority of the lightning victims are people working in the fields in rural areas. Lightning is also major cause of electrical power breakdowns and forest fires. It can also damage communication and computer equipment and affect aircraft navigation systems.

A moderate thunderstorm can damage thatched huts, kutcha roads, standing crops, orchards and power and communication lines.

A severe thunderstorm can cause major damage to thatched houses/huts. Rooftops may also blow off. Unattached or loosely tied metal sheets may fly. It can also damage power, Railway communication lines, signalling system etc.,

23.4 HAILSTORM:

Hailstorms are mainly observed during the winter and pre-monsoon seasons with virtually no events after the onset of the southwest monsoon. It appears to be associated with a particular cell of convective cloud rather than storm as a whole. Hail occurs in the mature stage, if at all it occurs. Cells in which hails occur have updrafts ofgreater than average intensity, exceeding 15 meters per second.

It is of three types:

- **Slight Hailstorm**: If it is sparsely distributed, usually small in size and often mixed withrain.
- **Moderate Hailstorm**: If it is abundant enough to whiten the ground.
- **Strong Hailstorm**: If it includes at least a proportion of large stones.

23.5 DUST STORM:

Northwest India experiences convective dust storms, locally called *"aandhi",* during the pre- monsoon season with maximum frequency and intensity in May. The frequency of dust storms is maximum over Rajasthan followed by Haryana, Punjab and West Uttar Pradesh.

It is of three types:

- **SLIGHT DUST STORM**: If the wind speed is up to 41 KMPH and visibility is less than 1000 Meters but more than 500 Meters.
- **MODERATE DUST STORM**: If the wind speed is between 42-74 KMPH and visibility is between 200 and 500 Meters.
- **SEVERE DUST STORM**: If the surface wind speed (in gusts) exceeds 74 KMPH and visibilityis less than 200 Meters.

23.6 Key Strategies

Severe and extended incidents of thunderstorm & lightning/ squall / dust storm /hailstorm /strong winds can disrupt social and economic services. Government agencies have a critical role to play in preparing and responding to such incidents at the local level, working closely with all stakeholders on a short, medium and long-term strategic plan.

a) Establish a qualitative and effective Early Warning System
b) Inter-agency coordination and communication
c) Develop advanced preparedness, mitigation and response plan
d) Preparedness at the local level for an effective incidence response plan
e) Capacity building and training
f) Public awareness and community outreach
g) Collaboration with Non-Government Organisations and civil society
h) Assessing the impact – getting feedback for reviewing and updating the plan.

23.7 Checklist for States to develop Heat Action Plan

Step-1: Government Engagement: Setting up a Heat Action Plan requires participation from State and District Government leaders, municipal health agencies, disaster management authorities and local partners. For example, Odisha has dedicated heat wave committee chaired by the Odisha State Disaster Management Authority and has representatives for all other relevant departments such as water and sanitation, animal husbandry etc.

Step-2: Appointing a State Nodal Agency and Officer: The State should appoint a head nodal officer at the State of District levels and depute an agency to oversee the Heat Action Plan. It should also build the capacity of key officials and agencies to recognize their roles in the State Heat Action Plan. The State Nodal Agency and Officer can then conduct table-top exercises, simulations and drills before the heat

wave season as well as identify and resolve communication gaps between participating departments, partners and the public.

Step-3: Vulnerable Assessment and Establishing Heat-Health Threshold Temperatures: It is important to identify vulnerable areas and populations in order to establish priorities and minimum thresholds for heat alerts and activities. Threshold temperatures can be determined by several methods: percentile approach and specific approach as well using combined temperature metrics or a departure-from-normal approach. The state should coordinate with the Indian Meteorological Department (IMD) to develop threshold as well. Identifying local academic/research institutes like medical colleges can provide additional useful partners for coordination.

Step-4: Drafting and Developing the Heat Action Plan: The State Nodal Officer and Agency can then coordinate with the local IMD office to start receiving summer season forecast annually from March to June and set up the early warning and daily alert system with colour codes based on predicted peak daily temperatures relative to different local threshold temperatures.

Step-5: Team Preparation and Coordination: Government should ensure that State Officials and agencies are well prepared for the heat season, key officials are well-trained and have information regarding pre, during and post heat session activities. Team members then develop a clearly defined interagency emergency response plan with roles and information flows clearly marked out.

Step-6: Implementation and Monitoring: While the Government departments (and partners) are responsible for implementing many components of heat action plan concerned, the public should be made aware of how to prepare and respond to extreme heat. Information, education and communication (IEC) plays important role in widely disseminating key messages to committees in advance. Specific messages should be developed to cater to vulnerable such as elderly, young children, outdoor workers and slum residents. ”Do’s–and-Don’ts” during a heat wave should be available in local languages and disseminated through media, including social media such as SMS that is easily accessible by vulnerable sections of population.

Step-7: Evaluating and Updating the Plan: The approach towards heat must be flexible and frequently updated to deal with unintended consequences. The process should determine if the strategies to deal with heat wave are effective, such as traditional remedies for mitigating heat that includes eating onions and drinking beverages like raw mango juice that cool the body. After every heat season, the city or State must assess the efficacy of the heat action plan, including the processes, outcomes and impacts. Stakeholders should then identify changes and improvements for the next heat season. The plan should be revised and updated as required. The changes carried out should be brought to notice of key officials and other stakeholders.

Step-8: Strategies for Reducing Extreme Heat Exposures and Adapting to Climate Change (Long term Plans): State should consider mitigation strategies to reduce the impact of extreme heat such as increasing the green cover in a city to

reduce the urban heat island effect or implementing cool roofs to provide comfort as well as reduce the impact of increased urbanization. Vulnerability assessment should also consider climate change scenarios wherever possible.

23.8 STEPS TO DEVELOP AN ACTION PLAN:

Step 1: Government Engagement

Setting up an Action Plan requires participation from the State and district administration, line departments, municipal authorities, health agencies, disaster management authorities and local partners. For example, each state can form a dedicated policy decision-making committee chaired either by the Principal Secretary of the State or the State Disaster Management Authority (SDMA) and develop an implementation strategy with the line departments.

Step 2: Appointing a Nodal Department and Officers

The State should appoint nodal officers at the State and district levels, and depute an agency to oversee the implementation of the Action Plan. It should also build the capacity of its key officials and agencies to fulfil their roles and responsibilities as mentioned in the State Action Plan. The State should conduct table-top exercises, simulations, and drills before the thunderstorms and lightning season besides resolving communication gaps between all concerned departments, partners and the public.

Step 3: Vulnerability Assessment and Early Warning System

It is important to identify vulnerable areas, assets and populations in order to establish priority areasfor Early Warning, forecast/ alerts activities. The State should coordinate with the IMD to develop reliable and accurate localized early warnings and dissemination plan.

Step 4: Drafting and Developing the Action Plan

The State nodal officer and agency should coordinate with all the concerned line departments and prepare an Action Plan with clearly defined roles and responsibilities.

Step 5: Team Preparation and Coordination

State officials and agencies should be well-prepared, well-trained and informed for the thunderstorms and lightning season. The State should develop a clearly defined inter-agency emergency response plan with clearly marked out roles and information flows.

Step 6: Implementation and Monitoring

While the government departments (and partners) are responsible for implementing many components of the Action Plan, the public should be made aware of how to respond to extreme weather incidents. Information, education and communication (IEC) play an important role in widely disseminating key messages to communities in advance. Specific messages should be developed to cater to vulnerable groups. During the season, “DOs" and Do NOTs” should be available in

local languages and disseminated through various media channels. Pre-season consultations should be held at the State as well as the District level every year before the commencement of the peak season (summer season).

Step 7: Evaluating and Updating the Plan

The approach towards extreme weather incidents must be flexible and iterative to determine whether the strategies to deal with them are effective and have no unintended negative consequences. After every season, the State must assess the efficacy of its Action Plan, including the processes, outcomes and impacts. Stakeholders should then identify gaps and make improvements for the next season. The plan should be updated annually with name, designation, contact details, etc., of key officials and concerned department/stakeholders should be made aware of these changes.

Step 8: Strategies for Adapting to Climate Change (Long-term plans)

States should undertake mitigation strategies to reduce the impact of climate change on extreme weather incidents. For example developing disaster-resilient infrastructure and implementing the "Manual on Hazard Resistant Construction in India" for non-engineered buildings.

23.8 STRUCTURAL MITIGATION MEASURES

The most effective structural measures against thunderstorms, lightning, squall and strong winds are meant to protect against the strong, high-speed winds and against the electric discharge due to a lightning strike.

(a) Protection against Strong Winds –

During strong winds associated with thunderstorms or squalls, the wind velocity is high but it rarely reaches cyclonic levels. Typical wind speeds during thunderstorms are in the range of 50- 80 KMPH. During severe thunderstorms, the wind speeds may reach around 100 KMPH. The wind velocity is highest in storms that are associated with extensive lightning activities.

Structures do not require any special protection against storms with wind speeds up to 100 KMPH if they are designed and constructed as per approved standards. Buildings that are constructed informally or those which are made using non-engineered materials may not be able to resist the wind forces. These may get damaged even in low wind speed unless special protection mechanisms are adopted. In general, components that provide large areas for the application of wind forces are the first to be damaged. They can become loose and pose a threat to humans as flying debris. In buildings that use lightweight sheets for roofing, the panels may collapse on occupants.

Protection against the lightweight panels under such wind speeds can be provided byproperly securing them with their supporting frames. The connection has to ensure that shearing or punching is avoided. The supporting frames also need to have adequate strength to safely transfer the forces imposed on them.

(b) Protection against Lightning — Lightning Shields

Installation of lightning arrestors and sound earthling for each building is essential. Lightning shields are the most commonly employed structural protection measure for buildings and other structures. A lightning shield consists of the installation of a lightning conductor at a suitably high location at the top of the structure. The conductor is grounded using a metal strip of suitable conductance. The grounding of the conductor is also specially designed to ensure rapid dissipation of the electrical charge of a lightning strike into the ground.

Lightning shields are not foolproof in their effectiveness. The ability of lightning shields to complete the cloud-to-ground circuit depends on several variables such as the height of the conductor, the shape and size of adjoining structures or natural conductors. The cone of protection is also highly variable and the angle of protective cone decreases with the increase in height of the shield's conductor. Very tall buildings may require lightning conductors at intermediate levels of the building in addition to the ones at its roof.

Internationally, lightning shields are not used for the protection of open areas such as agricultural fields due to their very high cost and reliability issues.

23.9 ACTION – TO BE TAKEN BEFORE, DURING AND AFTER:

(a) BEFORE THUNDERSTORM AND LIGHTNING-

To prepare for a thunderstorm, you should do the following:

1. Do remember that vivid and frequent lightning indicates the probability of a strong thunder storm.
2. Build an emergency kit and make a family communication plan.
3. Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm.
4. Postpone outdoor activities.
   Remember the 30/30 Lightning Safety Rule: Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.
5. Secure outdoor objects that could blow away or cause damage.
6. Get inside a home, building, or hard top automobile (not a convertible). Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.
7. Remember, rubber-soled shoes and rubber tyres provide NO protection from lightning. However, the steel frame of a hard-topped vehicle provides increased protection if you are not touching metal.
8. Unplug appliances and other electrical items such as computers and turn off air conditioners. Power surges from lightning can cause serious damage.
9. Shutter windows and secure outside doors. If shutters are not available,

close windowblinds, shades or curtains.

10. Unplug any electronic equipment well before the storm arrives.

(b) DURING A HAILSTORM and LIGHENING:

1. Farmers are advised to use hail net for orchard crops to protect from mechanical damage.
2. Provide support to banana crops, young fruit plants and cropping up in sugarcane crop/staking of vegetables to prevent the crops from lodging.
3. Keep harvested produces at a safe place.
4. Keep cattle/goats indoor during a hailstorm.

If thunderstorm and lightning are occurring in your area, you should:

5. Use your battery-operated radio/TV for updates from local officials.
6. Avoid contact with corded phones and devices including those plugged for recharging.Cordless and wireless phones not connected to wall outlets are OK to use.
7. Avoid contact with electrical equipment or cords.
8. Avoid contact with plumbing or pipes. Do not wash your hands, do not take a shower, do not wash dishes, and do not do laundry. Plumbing and bathroom fixtures can conductelectricity.
9. Stay away from windows and doors, and stay off porches.
10. Do not lie on concrete floors and do not lean against concrete walls.
11. Avoid hilltops, open fields, the beach or a boat on the water.
12. Take shelter in a sturdy building. Avoid isolated sheds or other small structures in openareas.
13. Avoid contact with anything metal - tractors, farm equipment, motorcycles, golf carts,golf clubs, and bicycles.
14. If you are driving, try to safely exit the roadway and park. Stay in the vehicle and turn on the emergency flashers until the strong rain ends. Avoid touching metal or other surfaces that conduct electricity in and outside the vehicle.

(c) AFTER LIGHTNING STRIKES A HUMAN BEING

If lightning strikes you or someone, call for medical assistance as soon as possible. You should check the following when you attempt to give aid to a victim of lighting:

(i) **BREATHING** – If breathing has stopped, begin mouth-to-mouth resuscitation.

(ii) **HEARTBEAT** – If the heart has stopped, administer Cardiopulmonary Resuscitation (CRH)

(iii) **PULSE** – If the victim has a pulse and is breathing, look for other possible injuries. Check for burns where the lightning entered and left the body. Also be alert for nervous system damage, broken bones and loss of hearing and eye sight.

CHAPTER-XXIV

PREVENTION AND MANAGEMENT OF HEATWAVE EXECUTIVE SUMMRY

24.0 Heat wave has emerged as one of major weather hazards in India. Heat Wave is a period of abnormality high temperatures, more than the normal maximum temperature that occurs during the pre-monsoon summer season. Heat wave season typically occurs from March to June and in some cases even extends up to July. On an average, five-six heat wave events occur every year over the Northern parts and eight to ten heat wave events in Southern parts of the country.

There has been an increasing trend of heat wave phenomenon in India over the past several years whereby several States/Districts/Cities/Towns in India have been severely affected.

Consequently, there is an urgent need to evaluate impacts of the heat wave and plan adaptation and mitigation strategies for prevention, preparedness and community outreach to safeguard human lives, live stock and wild life.

24.1 OBJECTIVE:

The Heat Wave Guidelines aims to provide a framework for developing Heat Action Plans for implementation, inter-agency coordination and impact evaluation of heat wave response activities in Cities/Towns.

24.2 BACKGROUND & STATUS - INTRODUCTION

Increasing urbanization and unique challenges associated with it such as Urban Heat Island (UHI) effect in cities will further exacerbate (worsen) the problem of heat wave in many parts of our country.

Extreme temperatures combined with high humidity and associated atmospheric conditions adversely affect people leading to physiological stress, loss of productivity, illness and sometimes even death. Heat wave can affect human and animal health and also cause major disruption in community infrastructure such as power supply, public transport and other essential services.

Heat wave is also called a '**silent disaster**' as develops slowly and kills and injures Human and Animals. India too is feeling the impact of climate change in terms of increased instances of heat wave with each passing year. The adverse impacts heat wave can be significantly reduced by educating people on the DO's and Don'ts of Heat Wave (Annexure-4) and developing a culture of reporting health issues pertaining heat wave to medical facilities in time thereby ensuring timely diagnosis and treatment.

24.3 Definition:

Heat Wave: Heat Wave is a condition of atmospheric temperature that leads to physiological stress which sometimes may cause death. The World Meteorological Organization defines a heat wave as five or more consecutive days during which daily maximum temperature exceeds the average maximum temperature by five degrees Celsius. In India, heat wave conditions are considered if maximum temperatures of a station reaches at least 40^0 C or more for plains, 37^0C or more for coastal areas and at least 30^0C or more for hilly regions.

Following criteria is used to declare a heat wave conditions prevailing-

a) Based on Departure from Normal:
   - Heat Wave Departure from normal is 4.5^0C to 6.4^0C
   - Severe Heat Wave : Departure from normal is > 6.4^0C

b) Based on Actual maximum Temperature (for plains only)
   - Heat Wave: When actual maximum temperature ≥ 4.5^0C
   - Severe Heat Wave: When actual maximum temperature ≥ 4.7^0C.

To declare a heat wave the above criteria should be met for at least at two stations in a Meteorological sub-division for at least two consecutive days. A heat wave will be declared on the second day.

On an average, more than eight heat wave days and one to three severe heat wave days are experienced during summer season from March to July over North and Central parts of the country. Also, many of the stations in North West India, Gangetic Plains, Central India and East Coast India have experienced continued heat wave spell of more than 10 days, mostly during May and June. There has been an increasing tendency of extreme summer temperature over most parts of the country in last five decades. Hence, the impact of extreme temperatures is higher along the West Coast of India.

24.4 PREPARING A HEAT WAVE PLAN

24.4.1 Heat Wave and Disaster Management

"Disaster" is defined under section 2(d) of the DM Act 2005 as a catastrophe, mishap, calamity or grave occurrence in any area arising from natural or manmade causes and is of such a nature or magnitude as to be beyond the coping capacity of the affected area. Heat Wave has not been notified as disaster by the GOI yet. It is not in the list of twelve disasters eligible for relief under National/State Disaster Response Fund norms.

24.4.2 Rationale for Heat Wave Action Plan (HAP)

Firstly many States are affected during the heat wave season such as Andhra Pradesh, Telangana, Odisha, Gujarat, Rajasthan, Madhya Pradesh, Chhattisgrah, Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Bihar, Jharkhand, West Bengal, Haryana, Punjab and Delhi.

Secondly, the actual numbers of deaths resulting from heat wave are higher that the reported numbers. Mostly the deaths in rural areas due to heat waves are often not reported.

Thirdly, the booming service sector with large number of vegetable vendors, auto repair mechanics, cab drivers, construction workers, road side kiosk operators etc particularly vulnerable to the heat wave conditions.

Fourthly, though the richer sections of India have ability to cope with higher temperatures by investing air conditioners and coolers, the proper population remain vulnerable to the higher temperatures. Therefore, it is not surprising that these workers, homeless people and the elderly constitute the majority of heat wave casualties in India.

Fifthly, these heat related deaths can be prevented with an evidence based plan, effective implementation and frequent updating in line with recent scientific development. Hence, a National level strategy and plan to combat heat wave should be developed. A comprehensive heat preparedness and response requires involvement form government authorities, non-governmental organization and civil society.

24.5 Objective of Heat Wave Action Plan

The Heat Wave Action Plan aims to provide a framework for developing plans for implementation, inter-agency coordination and impact evaluation of heat wave response activities in cities/towns that reduce the negative impact of extreme heat. The plan's primary objective is to alert those at high risk of heat-related illness in places where extreme heat conditions either exist or are imminent and to take appropriate precautions. The plan also calls for preparedness measures to protect livestock/animals as extreme heat causes significant stress to them as well. The heat wave action plan intends to mobilise departments and communities to help protect communities, neighbours friends, relatives and themselves against avoidable health problems during spells of very hot weather. The plan also intends to help early warning agencies as well as the media to be protective on steps taken to negate heat wave impacts.

24.6 Key Strategies

Severe and extended heat waves can also cause disruption to general, social and economic services. Government agencies will have critical role to play in preparing and responding to heat waves at the local level, working closely with health and other related departments on a long term strategic plan.

- Establish Early Warning System and communication systems.
- Developing inter-agency response plan and coordination in field.
- Preparedness at the local level for health eventualities.
- Health care systems capacity building

- Public awareness and community outreach.
- Collaboration with private, non-government and civil society.
- Assessing the impact – feedback for reviewing and updating the plan.

24.7 Roles and Responsibilities of Managing Heat Wave

24.7.1 Need for Data and Analysis

As heat wave is not a notified disaster at the National Level, accurate information and data related to heat wave deaths and illness are not available. In order to prepare for and take necessary mitigative action against heat wave, we need data on age group, sex and occupation of those who die of heat wave. We also need to collect the data on whether the deaths occurred indoors or outdoors. Similarly, data on the economic status of the people who died also needs to be collected.

Data from various domains are very much needed to have a sound evidence-based policy and its proper strategization. Valid and reliable data is needed for mortality as well as morbidity, the health outcomes directly as well as indirectly related heat. Most of the recent work exploring the effects of ambient temperature on human health has not considered the direct heat related health events such as heat strokes, heat exhaustion and fatigues. However, counterintuitive it might seem, these direct health outcomes are often not preferred by the research community. This is because their definitions are not always standardized and application of under estimation of such events. These direct heat outcomes are often biased by other factors the affected area, thus comprising their validity. Instead, the research community has frequently examined the effects of heat on general health indicators that include all-cause mortality, disease-specific mortality and morbidity- cardiovascular and respiratory events being prominent among them, visits to emergency departments of health facilities, demand for ambulance services and others- which might be casually associated to soaring temperatures.

Reliable meteorological data which constitute the exposure variables are also necessary for robust of evidence generation in this field, this includes data regarding various dimensions of ambient at atmospheric temperature, relative humidity, rainfall and wing flow, standardized atmospheric pollution data are often used to control their variations in these health prediction models which can refine the dependency estimates of health outcomes on atmospheric heat.

Mortality data must be acquired from Register of Births/Deaths at different levels. The determination of threshold values and characterizing the temperature-mortality relationship and vulnerability assessment. It would help in preparation of heat action plan.

24.7.2 Prevention, Preparedness and Mitigation Measures

Cool roofs to provide Affordable Thermal Comfort: Urban residents living in slums have fewer options available to adapt to rising temperatures. This increases their vulnerability to heat and results in great adverse impacts of extreme heat on these communities. In their issue brief “Rising Temperatures, Deadly Threat”, the NRDC and IIPH Gandhinagar identified several specific factors that increase the vulnerability of slum residents to extreme heat:

- **Higher Exposure to Extreme Heat**: Slum residents are more likely to be exposed to heat since they work primarily outside or in unventilated conditions, they live in homes constructed of heat trapping materials with tin or tarpaulin roofs and their communities lack trees and shade.
- **Greater Susceptibility to Heat Effects of Extreme Heat**: Lack of access to clean water, poor sanitation, over-crowding, malnutrition and a high prevalence of undiagnosed/untreated chronic medical conditions due to poor access to healthcare heighten slum community members’ susceptibility to extreme to extreme heat’s effects on health.
- **Fewer Adaptation Options Available**: Slum residents lack control over their home and work environments with limited access to(and inability to afford) reliable electricity and cooling methods like fans, air conditioning , insufficient access tp cooling spaces and a dearth of health information on which to act. All these factors reduce slum residents opportunities adapt to increasing temperatures.

  An affordable solution is cool roofs. A cool roof is a white reflective roof that stays cool in the Sun b minimizing health absorption and reflecting thermal radiation to help dissipate the solar heat gain.

Livestock preparedness during hot weather: Extreme heat causes significant stress to livestock. There is a need to plan well for reducing the impacts of high temperatures on livestock. Keeping an eye on the weather forecasts, and developing a mitigation plan for high to extreme temperature can be effective in ensuring that the 'livestock has sufficient shade and water on hot days.

Prevention, Preparedness and mitigation measures for various stakeholders are enumerated in the Table given below-

24.7.3 Roles and Responsibilities of Managing Heat Wave

S.NO	Key Strategy	Task/Activity	Centre/state Agencies & their Responsibilities			
			Centre	Responsibility	State	Responsibility
Investing in DRR Non-Structural Measures:						
		Ministry of Railways		1. Repair/maintenance of mechanical /electrical system on priority basis including fan and cooling system. 2. Ensure drinking water facilities in trains and Railway Stations. 3. Issue directives to States for construction of green building. Energy Conservation Building Code (ECBC) related to heat wave risk mitigation. 4. Policy formulation to increase forest coverage and green area in view of increasing heat wave risks. 5. Afforestration and Mass plantation		1. Repair/maintenance of mechanical / Electrical system on priority basis including fan and cooling system. 2. Ensure drinking water facilities in trains and Railway Stations. 3. Ensure construction of green building Energy Conservation Building Code (ECBC) related to heat wave risk mitigation. 4. Construction Department for plantation of trees at road side, barren lands and other areas. 5. Prevention of forest fire and control measures.

****

CHAPTER-XXV

NATIONAL DISASTER MANAGEMENT GUIDELINES
ON
DISABILITY INCLUSIVE DISASTER RISK MANAGEMENT

25.1 BACKGROUND

India has seen a tremendous increase in the severity and frequency of disasters in the recent years, as a result of which human and material costs have been on a steady rise. Research is simultaneously exposing links between climate change, extreme events and disasters across the world. One group at heightened risk is persons with disabilities. They experience the impact of disasters and climate change disproportionately and are negatively affected due to additional exposure to risk than the general population. Disable citizens who often fall below the poverty line suffer from additional health conditions and lack family support. Disabled citizens rarely have personal means of evacuation or escape or escape due to limited resources and lack of transportation. Additionally a significant percentage of affected disabled citizens are women, children or elderly who might be left behind due to the family's limited resources. Many persons with disabilities are aware of their needs in times of disasters but planners seldom consult them or even if they do so, their views are rarely included in disaster management work.

To address disaster and climate related risks inclusive strategic have to promoted as a key solution. Persons with disability should play an active role in contributing to building resilience as their lived experiences of disaster reduction can make meaningful contributions to the disaster Risk Reduction and Management process. In the National Disaster Management Plan, the DRR framework is comprehensive covering disaster preparedness disaster response and post disaster recovery. It is assumed that mainstreaming climate and DRR into development could reverse the rising trend of disaster losses. DRR is thus of critical concern to persons with disabilities as the impact of natural disasters from global warming from 1.5^{0} to 2.0^{0} will intensify major fluctuations in weather systems with poverty and disadvantages expecting to increase. It can be assumed that it will affect the population with disability.

We have further challenges about how to convert these transformed strategies into practical implementation, train disabled individuals to become active participants in such implementation steps and offer additional training to disaster management personnel. During the last decade disasters and increasing climate change have had a significant impact on persons with disabilities in India. Their vulnerabilities are linked to a lack of understanding about disabled personnel in times of disasters, under-preparedness of disaster management personnel to serve their needs and their general

socio-economic conditions. Their capacity to cope is further compromised by the deteriorating social attitudes towards the disabled group.

25.2 INTRODUCTION TO THE GUIDELINE: PURPOSE AND SCOPE

National hazards pose threats to the well-being of all people. However, it affects some people disproportionately such as those with disabilities. The purpose of the guideline is to provide practical directions to support implementation mechanisms of DiDRR and Climate change basing on the established and nationally accepted norms and practices so that all stake holders will implement and carry forward the process.

Thus this guideline will-

i. Contribute to knowledge base by providing disability inclusion actions in disaster mitigation, preparedness and response and recovery efforts.
ii. Highlight the strength of persons with disabilities and their representative organization to facilitate action.

It is a short but focussed guideline divided into six sections. This section explains the purpose of the guideline; section Two describes the intersection between disaster and disability, the legal framework and the existing institutional structures. Section Three elaborates the risks faced by persons with disabilities and approach to be developed for meeting the challenges. Section Four provides the action to be taken by specific stakeholders for disability inclusion. Section Five gives examples of disability inclusive practices and last section includes with a suggestive timeline followed by important bibliography and URLs on the laws, accessibility, alternative language formats and stakeholders for further assistance to users of these guidelines.

The guidance proposed through this document will inform and assist implementation, aid the stakeholders in reducing vulnerabilities and increasing resilience of persons with disabilities in DRR.

These guidelines intended primarily for Government Officials /Administration working in the field of DRR at National, State and Local Level, International NGOs(INGOs), Persons with Disabilities, Disable People's Organization(DPO), Other stakeholders include Non-Government Organizations(NGOs) working in disability disasters, disability activists, care givers, schools, health actors, elected representatives working in DRR.

25.3 METHODOLOGY

The Guideline is drawn from a detailed review of existing available resources and guidelines and governance mechanisms practiced in disaster risk reduction. It consists of diverse government, UN and academic sources as well as information from Disability International Non-Government Organizations (INGOs) and DPOs. The methodology took into account the activities and sectoral priorities of various stakeholders, available

capacities at National, State and Local Levels. An important contribution was made by persons with disabilities and DPOs.

25.4 DISASTER AND DISABILITY FRAMEWORK - PRESENT CONTEXT

25.4.1 INTRODUCTION

Vulnerability of persons with disabilities in disasters is created or reinforced as a result of unequal resource distribution, hierarchy in power relationships and diverse cultural attitudes. Individuals with disabilities are disproportionately affected by disaster because evacuation, response and recovery efforts not geared to their needs. Surveys on disaster and disability highlighting the issues of exclusion show very high levels of non-participation due to lack of training and Information. Education and Communication (IEC) material. While United Nations International Strategy for Disaster Reduction (UNISDR) stated that 85.7% did not participate in community disaster management and risk reduction process. 72.20% therefore had no personal preparedness plans. Thus it is required that India's disaster risk reduction system understands the obstacles persons with disabilities face during disasters. It needs to institutionalize the inclusion mechanism (details in section Four) so the gap in the disaster reduction policy framework is filled.

25.4.2 DETERMINING NUMBERS AND MAGNITUDE of DISABILITY

An estimated approximately one Billion of the World's population live with some form of disability. Of the 26.8 Million in India (2.2% of the population) men with disabilities constitute 56% and women with disabilities make up the rest of 44% as per Census 2011. Though prevalence in terms of percentage depicts a low incidence, numerically it is a large population equivalent to the population of Australia. Another Data set is National Sample Survey Organization which was carried out in 2002 is dated.

The disability population faces discrimination and exclusion and therefore is confronted with considerable challenges in accessing the same opportunities as the rest of the population in disaster situations. Inclusion in the legal framework and its implementation however gives them an opportunity of overcoming the barriers in participation.

25.4.3 DISABILITY INCLUSIVE DISASTER RISK MANAGEMENT IN RAILWAYS

Implementation of Di DRR management in Railways:

- SLR is partially converted for 'Divyangs (Physically Handicapped)' with improved toilet facilities. This SLR is called as SLRD in general.
- Ramps with railing, Wheel chairs and separate Toilet facilities are made available for at Railway Stations.

- Lifts are used for physically challenged Public at Major Railway Stations.
- Drinking water Taps provided at lower levels in stations.
- Stretchers are provided as Brake Van Equipment in SLRs.
- Stretchers and Wheel Chairs are also provided in SM's Office.
- For Blind /Vision impaired people Sign Boards at certain locations, Berth Numbers in reserved coaches and special instructions were provided in 'Braille' script.
- Separate recruitments are carried out to recruit people of Divyang Category into our system. Their services are made use in suitable locations such as at Officers Rest House, Booking Offices etc.,

****

CHAPTER-XXVI

NDMA GUIDELINES ON TRAINING AND CAPACITY BUILDING OF CIVIL DEFENCE AND SISTER ORGANISATION

26.1 Objective:

The main objective of the guidelines are to promote awareness on various types of disasters and their challenges besides improving competency and skill level of Civil Defence trainers and volunteers on DM and to enable trainees to develop action plans on DM, mitigation and risk reduction at all stages, building the capacity of Civil Defence personnel to work as master trainers, etc.,

26.2 Response to accident related and other disasters:

Every year about 90,000 people in India succumb in road accidents and about 70,000 major and minor accidents occur across the country. Further, every year about 140 accidents occur on IR which operate nearly 12,000 trains and carry more than 20 million passengers every day. The number of deaths due to train accidents is around 200 per year. The main objective of the guidelines is to educate people and the government, road and rail authorities about safety measure, improved capacity to respond to such hazards.

26.3 Riots / Violence – DO's and DON'Ts:

Take down all the emergency phone numbers of Police, Fire Brigade, Red Cross volunteers trained in first aid, psychological support, health, develop communal harmony within the Railway fraternity both in office and in the colonies. Also, we need to avoid discussions / debate of controversial subjects or sensitive topics particularly on religion, etc,

****

CHAPTER-XXVII

PRIME MINISTER'S 10 POINT AGENDA

ON

DISASTER RELATED ISSUES

359

SOUTH CENTRAL RAILWAY

Headquarters Office,
Safety Branch,
Rail Nilayam,
Secunderabad – 500 025.

No. Safety.157/DM Plan/Vol. VII. Dt. 12.7.2021.

PED / Safety,
Railway Board,
New Delhi.

Sub: Hon'ble Prime Minister's 10 Point Agenda on disaster related issues – Reg.

Ref: Railway Board's letter No. 2020/Safety/DM/6/14 dated 16.4.2021 and 2.7.2021.

With reference to the above, Action Taken Report (ATR) of S. C. Railway on Hon'ble Prime Minister's 10 Point Agenda and vulnerability atlas as per the directions of NDMA on Disaster Management and disaster risk reduction is furnished hereunder:-

Sl. No.	10 Point Agenda items	Action Taken Report (ATR)
1	All development sectors must imbibe the principles of disaster risk management.	• The S.C.R. formulated Disaster Management Plan in conformity with the recommendations of High Level Committee on Disaster Management – 2003, Disaster Management Act, 2005 and the guidelines issued by National Disaster Management Authority (NDMA), which is updated periodically from time to time. • The objective of this DM Plan is to make the system prompt, receptive and efficient enough to respond quickly in case of any disaster and to establish a disaster management culture and make all officials aware of their respective roles and responsibilities.
2	Work towards risk coverage for all – starting from poor households to small and medium enterprises to multi-national corporations to nation states	• All the railway employees have been covered under free medical treatment in Railway hospitals and referral to approved Corporate Hospitals. • The provision for appointment of the eligible ward of the deceased railway employee on compassionate grounds is also available in Railways as part of risk coverage apart from grant of family pension. • In case of any rail accident, risk coverage for train passengers and goods transported through rail is covered in terms of relevant provisions contained in Indian Railways Act.

Sl. No.	10 Point Agenda items	Action Taken Report (ATR)
3	Encourage greater involvement and leadership of women in disaster risk management.	• Many women employees are associated with Disaster Risk Management activities in Railways like rescue and relief operations, medical services at the site of disaster / rail accident, communication of information to general public and security services (RPF/GRP) etc. • Services of Guides are also rendered during such exigencies. • Women employees are encouraged by suitably rewarding for their contribution towards Railway work including disaster related activities by Railway administration. • Women employees (especially doctors, nursing staff, hospital attendants etc.) have rendered commendable services with utmost commitment and dedication during COVID-19 pandemic.
4	Invest in risk mapping globally.	• Multi hazard risk assessment and risk mapping on account of disasters such as cyclones, floods, breaches, landslides, earthquakes, fire etc. is incorporated in the SCR Disaster Management Plan. • Further, detailed risk mapping indicating the vulnerable locations like bridges, tunnels, RATs, deep cutting locations, landslide etc. have also been included in the SCR Blue Book on Monsoon Instructions and Standard Instructions for Monsoon Patrolling, which are updated periodically. • Rescue and relief machinery is kept ready at strategic locations as part of disaster risk reduction.
5	Leverage technology to enhance the efficiency of our disaster risk management efforts.	• The appropriate latest technology is adopted by Railways in regard to various aspects / activities involved in the disaster risk management process such as: • Establishment of reliable communication system even from remote areas with installation of satellite based communication equipment (VSAT) and dissemination of information to the general public and the media about the incident. • Communication equipments like (VHF sets) walkie- talkies, mobile phones (CUG) provided to the field staff involved in train operations, maintenance of assets etc. in safety categories for conveying / passing on the information about disaster. • Fibre Optic assisted PLC based highly reliable communication system for remote access of Brake down sirens installed at SC, KZJ & BPA for faster information of any breakdown/ accidents. • The latest technology systems for prevention of train collisions / accidents viz. TCAS, TCWS, ATP etc are being provided on IR and TCAS is under implementation and has been commissioned on some sections over SCR. • Modern tools and equipment, machinery etc. are provided in rescue and relief special trains SPART/SPMRV. • In addition, the system is in place for mobilizing any extra equipment, machinery, skilled personnel etc. from open market / private agencies in the quickest possible time.

Sl. No.	10 Point Agenda items	Action Taken Report (ATR)
6	Develop a network of universities to work on disaster issues.	• Zonal Railways have established network of institutions, training centres such as ZRTI, MDTS, ETTC, STC etc. to cater for the training of Supervisors and staff in different disciplines in regard to train operations, maintenance of assets, disaster management efforts etc. • Further, centralized training institutions such as NAIR, IRIMEE, IRICEN, IRIEEN, IRISET, IRITM etc. who have collaboration with reputed technical and Management institutions, Universities, research organisations etc. cater to the training of the Railway officers in different streams in respect of train operations, maintenance of assets, disaster management etc. • In the recent past, IRIDM, which caters for training of Officers and Supervisors and staff exclusively in Disaster Management and relief efforts, has been established in Bangalore.
7	Utilize the opportunities provided by social media and mobile technologies.	• Helpline numbers are provided at major stations for giving information on disaster to all concerned and public. Also these numbers are shared with electronic and print media for communicating to the people. • Various platforms of Social media i.e., twitter / facebook are being used to disseminate information to rail users and their relatives in case of any untoward incident. • Wireless remote monitoring of power supply at CLS panels to monitor real time status of CLS panel input & output power supplies at various remote locations& display the same in the PC of divisional control office and send alarms in the form of SMS to the concerned official mobile phones for faster rectification. This was implemented as a pilot project in BPA section of SC Division. • To ensure better DM, VSAT, drones are effectively utilized for real time onsite videography to provide required inputs even in those areas which are not approachable and inaccessible.
8	Build on local capacity and initiative.	• Station wise DM phone numbers are exhibited in every station to take the help of local bodies for relief and rescue operations during train accidents. DM board is provided at all stations showing the information of local authorities like Dist. Collector, S.P., hospitals, Disaster Management Teams etc. Whenever it is needed, Railways seek assistance from the local authorities. • On hand practical training and skill development programmes are imparted periodically / regularly to the Supervisors and staff in different technical categories in handling of equipment, tools & plant, machinery etc, by senior railway staff / OEM officials is imparted. • Further, Mock drills in coordination with respective regional NDRF units, Fire department of the respective State Government are conducted at different stations / mid sections duly simulating disaster / accident scenario. This enables better co-ordination of Railways with other local agencies and facilitates better disaster management. • Electrical Safety Week, International Level Crossing Awareness Week etc. are organised involving railway staff, road users and all concerned stake holders.

Sl. No.	10 Point Agenda items	Action Taken Report (ATR)
9	Ensure that the opportunity to learn from a disaster is not wasted.	• The mechanism is in place on Railways for detailed analysis of every disaster / accident so as to improve the response and disaster governance and also to improvise policy guidelines. Each Railway Disaster / Accident is analyzed through inter-disciplinary committee of officials at appropriate level to arrive at the cause of the accident and recommendations to avoid recurrence of such incidents and also to bring out the system deficiencies if any and to make suggestions for further improvement and to enhance safety. • Serious accidents are analysed through enquiry by Commissioner of Railway Safety (an independent Authority under the Ministry of Civil Aviation), their recommendations are considered by Ministry of Railways for implementation. • All the accident enquiry reports are uploaded by zonal railway in SIMS (Safety Information Management System), so that the information is shared among the Officers and Supervisors of all Zonal Railways, which serves as a platform for learning so as to set right such shortcomings / deficiencies (that resulted in accidents), if any, in their respective work areas. • Apart from the above, the case studies of such disasters / accidents are also discussed as part of the Initial and Refresher courses in the training institutes at different levels. • Periodical safety bulletins at zonal and divisional level are published by safety wing of zonal Railways for circulation among the Railway staff. In addition, monthly fly leaves are issued by safety wing detailing the safety precautions to be observed, rules and regulations to be adhered to etc. in respect of the disasters / accidents that have occurred in the recent past. • Fortnightly / Monthly safety drives are ordered and undertaken by Railways on different aspects related to safe train operations, maintenance of assets so as to prevent accidents. The deficiencies noted in such safety drives are attended in time-bound manner as part of disaster risk reduction.
10	Bring about greater cohesion in international response to disasters	• Indian Railways have played a vital role in providing logistic support, in terms of transport of requisite relief materials like food grains, clothes etc. in case of disasters / exigencies to neighbouring countries as per the guidelines of Govt. of India. • During the COVID 19 pandemic, Liquid Medical Oxygen (LMO) in containers by rail has been transported by running oxygen express trains across length and breadth of the country which served as life saving to many hospitalized patients due to COVID 19 pandemic. This LMO produced domestically and imported from other countries has been transported through these oxygen specials via. Green corridors to meet the oxygen demand during the peak surge of COVID 19.

II. Vulnerability Atlas

S No.	Subject/Topics	Action Taken Report (ATR)
i	Using the Vulnerability Atlas prepared by Building Material Technology Promotion Council (BMTPC) in 2019 for various preparedness, mitigation and prevention activities for Disaster Management by the stakeholders. Everyone concerned with building construction (real estate, road construction, laying gas pipelines etc.) industry to use this atlas for reducing the vulnerability and while carrying development State and central Government development works need to take into consideration the Vulnerability Atlas and the Tenders may be prepared accordingly.	Vulnerability Atlas issued by BMTPC consists Earth quake Hazard map, wind hazard map, flood hazard map, land slide incidence map etc. The relevant details are incorporated in various Railway Codes & Rules such as concrete substructure code, bridge rules, steel bridge code which are made use of for the Design & Construction of new structures such as buildings, bridges etc. The relevant ISI codes pertaining to Earth quake forces, wind loads etc., are adopted in respect of design of the different type of structures on Railways. The vulnerability aspect specific to different reasons/areas is accounted for in railway developmental works. Structural drawings are issued accordingly based on which works are executed.

12/7/2021

. (M. Ravindranath Reddy)

Principal chief safety officer

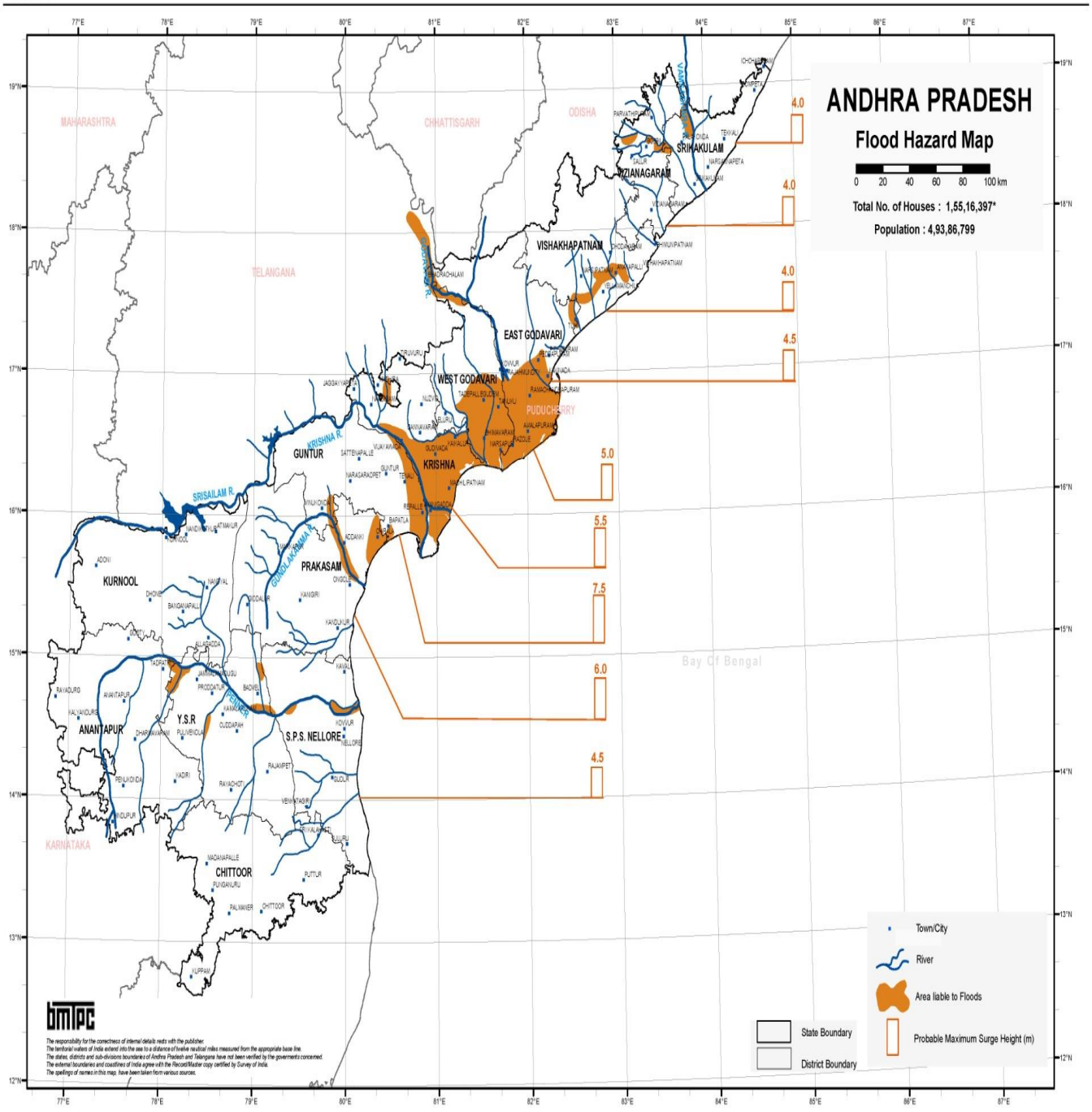
CHAPTER XXVIII

(OFFICERS NOMINATED TO REPORT TO DISASTER CONTROL, RAILNILAYAM AND TO PROCEED TO THE SITE OF ACCIDENT)

Zonal Headquarter's-level

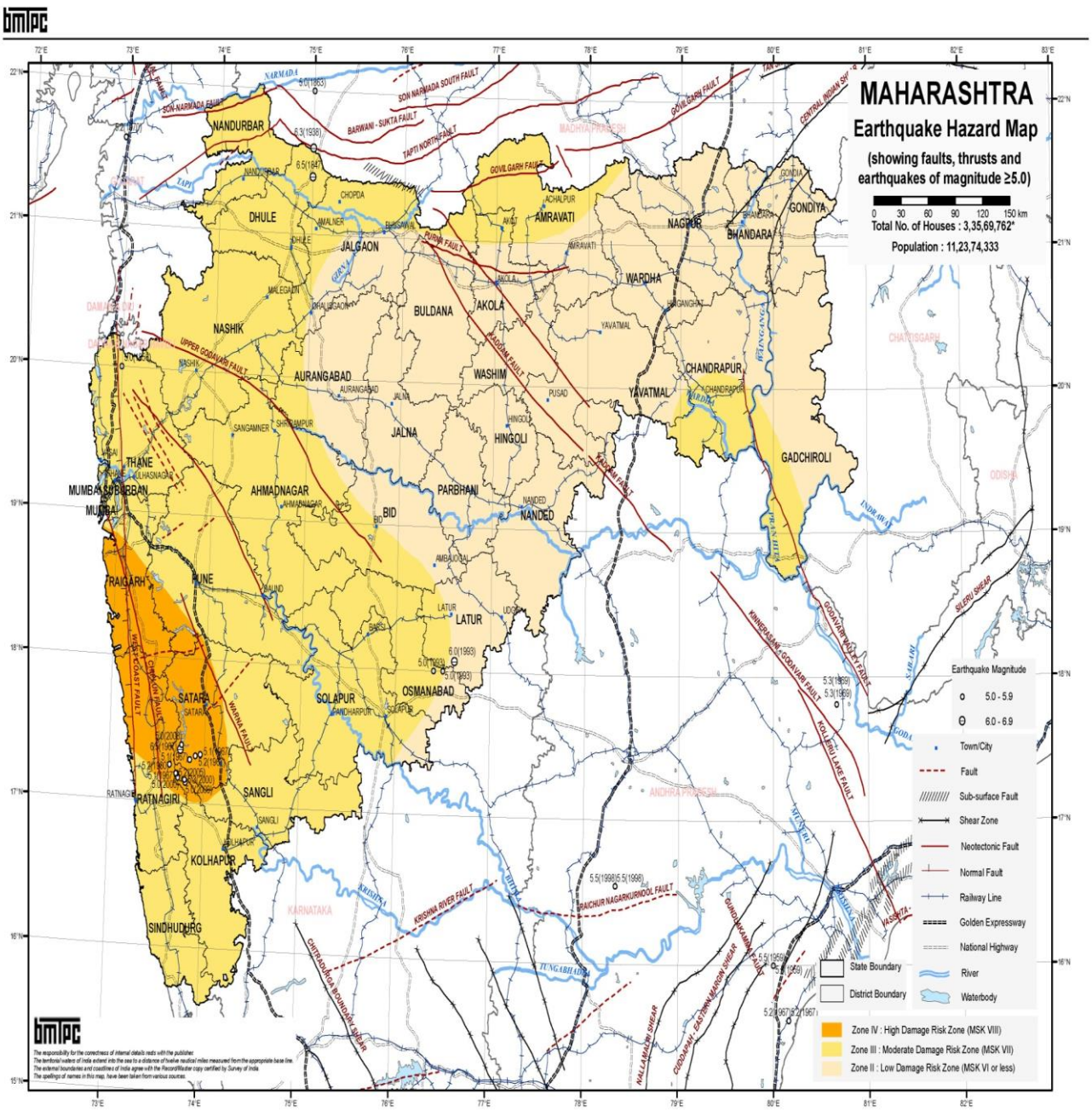
Department	To report to Disaster Control (Main Line)		To report to Disaster Control (Branch Line)		To proceed to Spot		
	Passenger carrying trains	**Goods**	**Passenger carrying trains**	**Goods**	**Passenger carrying trains**	**Goods ML**	**Goods BL**
Engineering	CTE **Stand-by** CE/TM or CE/TP	Dy. CE-Tr.I **Stand-by** Dy. CE-Tr. II	CTE **Stand-by** CE/TM or CE/TP	Dy. CE-Tr.I **Stand-by** Dy. CE-Tr. II	**Will be nominated by PCE on case to case basis**		
Mechanical	CME/Plg **Stand-by** CWE	CRSE **Stand-by** CMPE/Dsl	CME/Plg. **Stand-by** CWE	Dy.CME/C&W **Stand-by** Dy.CME/WS	CRSE **Stand by** CMPE/Dsl	CRSE **Stand-by** CMPE/Dsl	Divisional Officers
Electrical	CELE (OHE) **Stand-by** Dy.CEE/Loco CEGE(Non-OHE) **Stand-by** Dy.CEE/Plg.	CELE(OHE) **Stand-by** Dy.CEE/Loco CEGE(Non-OHE) **Stand-by** Dy.CEE/Plg.	CELE(OHE) **Stand-by** Dy.CEE/Loco CEGE(Non-OHE) **Stand-by** Dy.CEE/Plg.	CELE(OHE) **Stand-by** Dy.CEE/Loco CEGE(Non-OHE) **Stand-by** Dy.CEE/Plg.	CEDE(OHE) **Stand-by** Dy.CEE/TRD CESE **Stand-by** Dy.CEE/TRD	CEDE(OHE) **Stand-by** Dy.CEE/TRD CESE **Stand-by** Dy.CEE/TRD	CEDE (OHE) **Stand-by** Dy.CEE/ TRD CESE **Stand-by** Dy.CEE/ TRD
Operating	CPTM **Standby**	CPTM **Standby**	Dy.COM/Chg **Standby**	Dy.COM/Chg **Standby**	**Depending upon the severity of the accident,**		

	Dy.COM/Chg	Dy.COM/Chg	STM/Chg	STM/Chg	**COM will nominate, if required**		
Commercial	CCM/PS **Stand-by** Dy.CCM/G Dy.CCM/PRS	CCM/PS **Stand-by** Dy.CCM/CL&PO	CCM/PS **Stand-by** Dy.CCM/FS Dy.CCO	**….**	**….**	**….**	**….**
Security	ASC/CIB & IPF/CIB	ASC/CIB & IPF/CIB	ASC/CIB & IPF/CIB	ASC/CIB IPF/CIB	*CSC/Dy.CSC (*major accidents only)	**….**	**….**
Medical	CHD/Dy.CMD	CHD/Dy.CMD	CHD/Dy.CMD	CHD/Dy.CMD	CMD **Stand-by** CHD	**….**	**….**
S&T	Dy.CSTE/Tele **Stand-by** SSTE/Tele *CSE/CCE to give information to Signal Directorate	Dy.CSTE/Tele **Stand-by** SSTE/Tele *CSE/CCE to give information to Signal Directorate	Dy.CSTE/Tele **Stand-by** SSTE/Tele *CSE/CCE to give information to Signal Directorate	Dy.CSTE/Tele **Stand-by** SSTE/Tele *CSE/CCE to give information to Signal Directorate	CSE (within station limits) CCE (Outside station limits) **Stand-by** CSTE/P or CSTE/Plg.	CSE (within station limits) CCE (Outside station limits) **Stand-by** CSTE/P or CSTE/Plg.	CSE (within station limits) CCE (Outside station limits) **Stand-by** CSTE/P or CSTE/Plg.



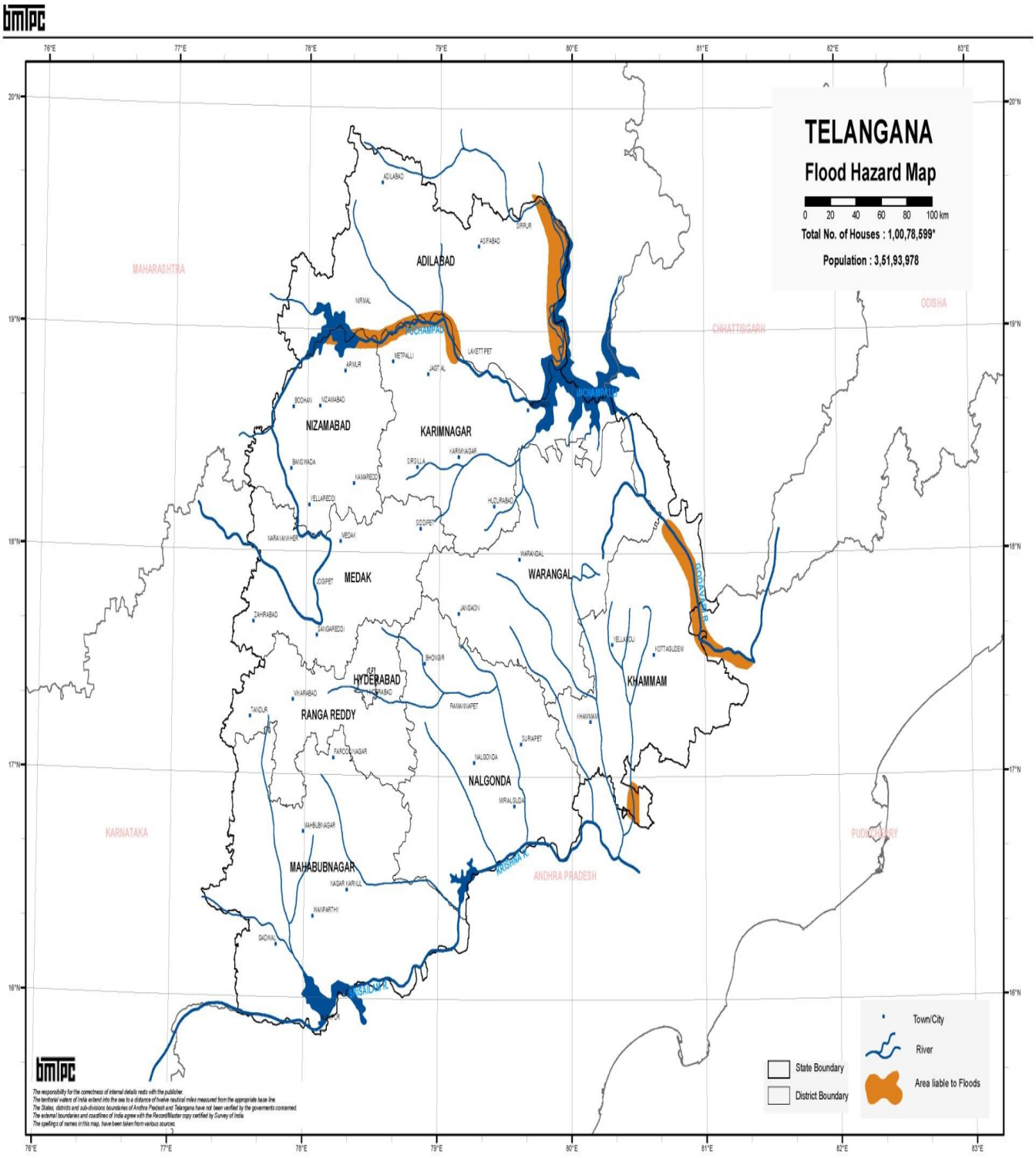
BMTPC : Vulnerability Atlas - 3rd Edition; Peer Group, MoHUA; Map is Based on digitised data of SOI, GOI; Census of India 2011; Flood Atlas (1987), Task Force Report (2004), C.W.C., G.O.I. Houses/Population as per Census 2011; * Houses including vacant & locked houses.
Disclaimer: The maps are solely for thematic presentation.

40



BMTPC : Vulnerability Atlas - 3rd Edition : Peer Group, MoHUA, GOI; Map is Based on digitised data of SOI; Seismic Zones of India Map IS: 1893 (Part I): 2002, BIS; Earthquake Epicentre from IMD; Seismotectonic Atlas of India and its Environs, GSI; Houses/Population as per Census 2011; *Houses including vacant & locked houses. Disclaimer: The maps are solely for thematic presentation.

252



BMTPC : Vulnerability Atlas - 3rd Edition; Peer Group, MoHUA; Map is Based on digitised data of SOI, GOI; Census of India 2011; Flood Atlas, Task Force Report, C.W.C., G.O.I. Houses/Population as per Census 2011; * Houses including vacant & locked houses.Disclaimer: The maps are solely for thematic presentation.

364

SOUTH CENTRAL RAILWAY

ZONAL DISASTER MANAGEMENT PLAN

PART - II

(SEP - 2021)

HEADQUARTERS

SAFETY ORGANISATION

Important telephone numbers of Railway Board's official for reporting accidents:

The following list is as per the priority of officers to be informed at the time of an accident –

Designation	Office Tel. No.		Residence Tel.No.		Mobile No. Fax No.
	Railway	MTNL	Railway	MTNL	
Principal Executive Director (Safety)	030-43302 & 47406	011-23381344	030-44712	011-23210429 011-23386215	9910487525 011-23386215
ED (Safety)	030-44505 & 47407	011-23782546		- 011-4555551 (0120)	9870424000, 011-23782546
ED(Safety)-II	030-43446 & 47407	011-23389987		- 011-4548501	9810017905
Director(Safety)-I	030-43667 & 47409	011-23387009			09910487477
Director(Safety)-II	030-43446	011-23389987		0120-4548501	09810017905
Director(Safety)-III	030-43239 & 47411	011-23385047		011-49053824	09910487542
Director(Safety)-IV	030-43574 & 47412			011-23070944	09910487540
Control Office (Safety) Chief Controller-(Safety)	030-43399 030-47423	011-23382638			9717645611

Designation	Office		Resident		Mobile
	Rly. (030)	BSNL(011)	Rly. (030)	BSNL(011)	
Minister	44740	23386645 23381213	44741	23012625 23012777	- - - -
CRB	44700	23384010 23382753	44701	26884922	9810099310
FC	44702	23382754	44703	26886851	9810099315
ME	44706	23383879	44707	26883923	9910487474
ML	44710	23385100	- - - -	- - - -	9810099323
MM	44708	23381477	44709	24675513	9810099317
MT	44712 44726	23382776	44901	26877379	9810561144
MS	44704	23382762	23676	23740027	9810099318
Secy. RB	44714	23385227	55014	26881117	9810099312
G. BRANCH	43776	2338-9773	43426	2330-3766	

Telephone numbers of the CRS Organisation

Sno	Name & Designation	Office & Residence

1	C.C.R.S. Lucknow. Email:chiefcom@rediffmail.com	STD Code – 0522 (O) 2233108, FAX – 2233095, (R) 2237702 Rly.23-290 (NR) Rly.31-140 (NER) O/o CCRS, DRM office N.E.Rly. Campus, Ashok Marg, Lucknow
2	CRS/W. Circle, Mumbai Email:crswc@wr.railnet.gov.in	STD Code - 022, Rly. 090 (O) 22034351, (F) 22034351 Rly. 22694 (WR), (R) 22020304, Rly. 54951 (CR) Churchgate Stn. Bldg. Annex (2nd Floor) Maharshi Karve Road, Mumbai 400 020.
3	CRS/C. Circle Mumbai. E-mail:crscc@rediffmail.com	STD – 022, Rly. 090 (O) 22056058 (R) 22045495, (F) 22056058 Rly. 54950 (CR) Rly. 22695 (WR) Churchgate Stn. Bldg. Annex (2nd Floor), M.K. Road, Mumbai
4	CRS/E. Circle Kolkata. Email: crsec@er.railnet.gov.in	STD – 033, Rly. 020 (O) 22483945, Rly. 27061 (FP), DoT 22227061 New Koilaghat Bldg. 14, Strand Road,(12th Floor) Kolkata 700 001.
5	CRS/S.E.Circle, Kolkata E-mail: crssec@er.railnet.gov.in	STD Code – 033, Rly. 020 (O) 22484858, (O) 22227062, (R) 24483530 Rly. NKG 27062, FAX – 22105514, GRC (O.S) 44604 (SER), New Koilaghat Bldg. 14, Strand Road,(12th Floor) Kolkata 700 001.
6	CRS/N.F.Circle, Kolkata E-mail: crssec@er.railnet.gov.in	STD Code – 033, Rly. 020 (O) 22481493, Rly. 27060 (FP), FAX – 033-22484225, New Koilaghat Bldg. 14, Strand Road, (12th Floor) Kolkata 700001
7	CRS/S. Circle, Bangalore. E-mail:crsscsbc@sr.railnet.gov.in	STD Code – 080, Rly. 066 (O) 22260650, FAX 080-22260650, Rly. 53200 (SR) (R) 22265926 Rly. 53702 (FAX) 22260650 7, Seshadri Road, Gandhinagar, Bangalore 560009.
8	CRS/S.C.Circle, Secunderabad. E-mail:crs@scr.railnet.gov.in	STD Code 040, Rly Code 070 (O) 27820104,

		(O) 27786980, (F) 27820104 (R) 27000219 Rly. 86980 (SCR), Rly. 86979 (SCR), Opp. Rail Nilayam, Sarojini Devi Road, Secunderabad PIN 500 071.
9	CRS/N.E.Circle, Lucknow. Email: crsnecircle@gmail.com	STD Code 0522, Rly-032 (O) 2234515, (F) 2234538, (R) 2235232 Rly. 23-291 (NR), Rly. 31-141 (NER), DRM/N. Railway Bldg, Lucknow 226 001.
10	CRS/N. Circle, New Delhi E-mail: crs@nr.railnet.gov.in	STD Code 011, Rly. 030 (O) 26886589, (R) 26111385, (F) 26886589 Rly.54752, Rly. 54753 Safdarjung Rly. Station (Near CRIS) Chanakyapuri, New Delhi 110 021.
11	Dy. CRS(G)Lucknow	(O) 2233043, Rly. 23-413 (NR), (NE)- 31-142
12	Dy. CRS(M)/Lucknow	(O) 2233086 (R), Rly. 23-293, NE 31-143
13	Dy. CRS(O)/Lucknow	(O) 2233088, Rly. 23-293, NE 31-145
14	Dy. CRS(ET)/Lucknow	(O) 2233088, Rly. 23-293, NE- 31-146
15	Dy. CRS(S&T)/Lucknow	(O) 2233086, Rly. 23-214, NE 31-144
16	Dy. CRS(S&T)/Kolkata	(O) 22105514, Rly. 27063
17	Dy. CRS(S&T)/ Bangalore	-
18	Shri Avinash Sangoley, Dy. CRS(S&T)/Mumbai	(O) 22097608 (CR) 54951, (WR) 22693,
19	Shri G. P. Garg Dy. CRS(ET)/Mumbai	-

NDMA CONTROL ROOM

Name & Designation	Contact Nos.	E-mail address & Mobile No.
NDMA	011-26701728	9868891801

Control Room	011-1078 Fax- 011-26701729	9868101885 controlroom@ndma.gov.in, ndmacontrolroom@gmail.com,

NATIONAL DISASTER MANAGEMENT AUTHORITY STD Code -011

Name of Officer/ Designation	**Tel (Office)**
Vice Chairman	26701701
Sh. M. Chand Marwah,	26701775
Sh. R.K. Jain, Member	26701777
Sh. D.M. Sharma, Member	26701735
Sh. Kamal Kishor, Member	26701736
Member	26701778
Member	26701738
Member	26701740
Member	26701781
Sh.R. K. Jain, Spl Secy. & Secy. NDMA	26701710 26161106 (Telefax)
Advisor	26701709
Advisor & JS (Mitigation)	26701812
JS (Policy & Planning)	26701816
Sh. B. Pradhan, JS (Admn & Coord)	26701812
Specialist NDRF	26701745

NDRF-Force Head Quarters

Designation	Address	Telephone No.	Fax No.	E-Mail
Director General	Directorate General, NDRF, 6th Floor, NDCC-II Building, Jai Singh Road, New Delhi - 110001	011-23438020, 011-23438119	011-23438091	dg.ndrf@nic.in
Inspector General	-- Do --	011-23438021	011-23438091	ig.ndrf@nic.in
Financial Advisor	-- Do --	011-24368148	011-23438091	--
Deputy Inspector General (Proc/Prov)	-- Do --	011-23438022	011-23438091	digprov-ndrf@nic.in
Deputy Inspector General (Trg/Pro /Academy/NCDC/East & North East Sector)	--Do--	011-23438140	011-23438091	dig.es.ndrf@nic.in
Deputy Inspector General (Estt/ Ops / North-West Sector)	--Do--	011-23438023	011-23438091	dig.ns.ndrf@nic.in
Deputy Inspector General (Adm/Works/South Sector)	-- Do --	011-23438185	011-23438091	dig.ss.ndrf@nic.in
Commandant (PROC/PROV/NDRR)	-- Do --	011-23438183	011-23438091	--
CMO (SG)	-- Do --	011-23438091	011-23438091	cmo-ndrf@gov.in
Second-in-Command (DDO)	--Do--	--	011-23438091	--
Deputy Commandant (ADM)	--Do--	--	011-23438091	hq.ndrf@nic.in
Deputy Commandant (Trg)	--Do--	011-23438138	011-23438091	hq.ndrf@nic.in
Deputy Commandant (OPS)	--Do--	011-23438024	011-23438091	hq.ndrf@nic.in
Deputy Commandant (Engineer)	--Do--	--	011-23438091	--
DC (IT/COMN/PRO)	--Do--	011-23438024	011-23438091	deep.del@gov.in
AC(ADM & SO to DG)	--Do--	011-23438118	011-23438091	dc.adm.ndrf@nic.in
AC/MIN	--Do--	011-23438091	011-23438091	hq.ndrf@nic.in
--	--Do--	011-23438091,8136	011-23438091	hq.ndrf@nic.in

CONTROL ROOM DETAILS

NO. - 011-24363260, FAX NO. - 011-23438091,

CISF NDRF Battalion, Arakkonam has Tamil Nadu, Puducherry, Kerala and Andhra Pradesh (except Srikakulam and Vizianagaram Districts) in its areas of responsibility. The Battalion is headed by Senior Commandant, under the administrative/operational control of Inspector General (Adm.), CISF HQRs., New Delhi and Deputy Inspector General (DM), CISF HQRs., New Delhi..

Details of NDRF battalions are as under :-

Designation	Address	Telephone No.	Fax No.	Mobile No.	Unit Control Room No.	E-Mail
Commandant	1st BN NDRF, Patgaon PO - Azara,Distt. Kamrup Metro, Guwahati-781017	0361-2840027	0361-2849080	--	0361-2840284 09401048790 09435117246	assam01-ndrf[at]nic[dot]in
Commandant	2nd BN NDRF, Near RRI Camp. Haringhata, Mohanpur, Nadia, (West Bengal) Pin - 741246	033-25875032	033-25875032	-	033-25875032 09474061104 09474116775	wb02-ndrf[at]nic[dot]in
Commandant	3rd BN NDRF, PO-Mundali, Cuttack - Odisha Pin - 754013	0671-2879710	0671-2879711	--	0671-2879711 09437581614	ori03-ndrf[at]nic[dot]in
Commandant	4th Bn NDRF, PO - Suraksha Campus , Arrakonam , Distt. Vellore Tamilnadu-631152	04177-246269	04177-246594	--	04177-246594 09442140269	tn04-ndrf[at]nic[dot]in
Commandant	5th Bn NDRF, Sudumbare Taluka, Distt - Maval Pune (Maharashtra) Pin - 412109	02114-247010	02114-247008	--	02114-247000 09422315628	mah05-ndrf[at]nic[dot]in
Commandant	6th Bn NDRF, Chilora Road , Gandhinagar, Pin - 382042	079-23202540	079-23201551	--	079-23201551 09723632166	guj06-ndrf[at]nic[dot]in
Commandant	7th Bn NDRF, Bibiwala Road, Bhatinda (Punjab) Pin 151001	0164-2246193	0164 - 2246570	--	0164-2246193 0164-2246570	pun07-ndrf[at]nic[dot]in
Commandant	8th Bn NDRF, Kamla Nehru Nagar, Ghaziabad (UP) Pin - 201002	0120-2766013	0120 - 27666012	--	0120-2766618 09412221035	up08-ndrf[at]nic[dot]in
Commandant	9th Bn NDRF, Bihata Patna, Bihar Pin - 801103	06115-253942	06115-253939	--	06115-253939 08544415050	patna-ndrf[at]nic[dot]in

					09525752125	
Commandant	10th Bn NDRF, ANU Campus, Nagarjuna Nagar, Guntur (AP) Pin - 522510	0863-2293178	0863-2293050	--	0863-2293050 08333068559	ap10-ndrf[at]nic[dot]in
Commandant	11 th Bn NDRF, Sanskritik Sankul, Maqbool Alam Road, Varanasi, UP - 221002	0542-2501201	0542 - 2501101	--	0542-2501101 08004931410	up-11ndrf[at]gov[dot]in
Commandant	12 th Bn NDRF, Itanagar, Arunachal Pardesh791112	0360-2277109	0360-2277106	--	0360-2277104 09485235464	bn12[dot]ndrf[at]gov[dot]in

NDRF RRCs

Name of RRC	Landline Number	Mobile Number
NDRF RRC, Port Blair, Andaman	03192289174	09442112269
NDRF RRC, Adayar, Chennai	04424420269	09442112269
NDRF RRC, Vizag Steel Plant, Vishakhapatnam, Andhra Pradesh	--	08333068565 08333068560
NDRF RRC, Fire Station Mahadevapura, Bengluru, Karnatka	--	09482978719 09482978715
NDRF RRC, Shaikpet Sport Complex, Hyderabad, Telangana	04023565666	08333068536 08333068547

Railway Board have also empowered Divisional Railway Managers to directly requisition the relevant NDRF Battalion for relief and rescue operations depending upon the gravity of situation so that their services could be made available expeditiously at the time of major Railway disasters without any loss of time. However, requisitioning of NDRF should be judicious and NDM Control Room under **Ministry of Home Affairs (Tele No.011-23092885 Fax No.011-23093750) and Security Control Room (Tele No.011-23387981 Fax No.011-23303983) and safety cell (Tele Fax No.011-23382638) in the office of Railway Board must be kept informed**.

This instruction is issued by Railway Board in consultation with National Disaster Management Authority (NDMA) having the administrative control on NDRF.

SOUTH CENTRAL RAILWAY – IMPORTANT OFFICIALS

Designation	Rly. Office	Rly. Residence	MTNL/BSNL Office	MTNL/BSNL Residence	E-mail.ID
GM	070-86499	070-86500	040-27822874	044-27825309	gm@scr.railnet.gov.in
AGM	070-86497	070-89791	040-27824216	040-27833170	-
SDGM	070-86495	-	040-27830516	-	-
Pr.CE	070-86399	070-89000	040-27823710	040-27789000	-
PFA	070-86599	070-89955	040-27833355	040-27002775	-
PCSO	070-86438	070-89952	040-27832342	040-27789952	-
PCSC	070-86849	070-89956	040-27822223	040-27004446	-
PCMD	070-86809	070-89397	040-27821373	040-27789397	-
PCPO	070-86969	-	040-27820462	-	-
PCEE	070-86929	-	040-27825243	-	-
PCME	070-86749	070-89782	040-27822582	040-27014425	-
PCOM	070-86439	-	040-27834267	-	-
PCCM	070-86249	070-89954	040-27834275	040-27000077	-
PCSTE	070-86299	070-85023	040-27824755	040-27785023	-
PCMM	070-86339	-	040-27832181	-	-
CPRO	070-86481	-	040-27820583	-	-
DRM/SC	070-86199	070-89988	040-27830449	040-27789988	drm@sc.railnet.gov.in
ADRM/Infra/SC	070-86197	-	040-27831600	-	-
ADRM/OP/SC	070-86198	-	040-27834083	-	-
ADRM/Genl/SC	070-86192	-	040-27831631	-	-
DRM/HYB	070-86099	070-89960	040-27820152	040-27006868	drm@hyb.railnet.gov.in
ADRM/OP/HYB	070-86098	070-89575	040-27825757	040-27014161	-
ADRM/Infra/HYB	070-86097	-	040-27786097	-	-
DRM/NED	070-52200	070-52400	02462-260333	02462-260435	drm@ned.railnet.gov.in
ADRM/NED	070-52201	070-52401	02462-260694	02462-223629	-

DRM/BZA	070-67000	070-67001	0866-2572690	0866-2475425	drm@bza.railnet.gov.in
ADRM/OP/BZA	070-67010	070-67011	040-2574300	040-2471300	-
ADRM/Infra/BZA	070-67002	070-67003	0866-2573302	0866-2492926	-
DRM/GNT	070-32000	070-32003	0863-2234229	0863-2596656	drm@gnt.railnet.gov.in
ADRM/Infra/GNT	070-32002	070-32003	0863-2243541	0863-2596054	-
ADRM/OP/GNT	070-32008	070-32009	0863-2227903	-	-
DRM/GTL	070-27000	070-27001	08552-226467	08552-226468	drm@gtl.railnet.gov.in
ADRM/Infra/GTL	070-27002	070-27003	08552-226674	08552-226792	-
ADRM/OP/GTL	070-27009	070-27010	08552-2227903		

Zonal Railway Disaster Management Cell

Division	Location	Rly No.	PSTN	Satellite Phone Nos.
-	HQ/Operating	070-88430 88431 88517	1072 040-27821430	-
-	HQ/Safety	070-88432	040-27821466	-
-	HQ/Commercial	070-85430	-	-
-	HQ/Security	070-88434	-	-
-	HQ/Medical	070-88435	-	-
-	HQ/Electrical	070-88512 88518	-	-
-	HQ/Signal&Telecom	070-88562 88513	-	-
-	HQ/Engineering	070-88563 88561	-	-
-	HQ/Mechanical	070-88560	-	-
-	HQ/Accounts	070-88564	-	-
-	HQ/FAX	070-88433	040-27821488	-
-	HQ/Central control	-	-	-
-	HQ/Emergency control	-	-	-
-	HQ/Commercial control	-	-	-
Secunderabad Div.	DM Cell /Control Conf.Hall	070-86664 86134 86641	1072 040-27820377, 040-27821612, 040-27821657	8991112745 8991112742
Hyderabad Div.	DM Cell /Control Conf.Hall	070-86800	1072 040-27823902 040-27823909	8991112746 8991112756
Nanded Div.	DM Cell /Control Conf.Hall	070-52600 52601 52602 52603 52604	1072 02462-261729	8991112760
Vijayawada Div.	DM Cell /Control Conf.Hall	070-67233 67040 67070	1072 0866-2576796	-
Guntakal Div.	DM Cell /Control Conf.Hall	070-27652 27653 27654	1072 08552-226417	-

Guntakal Div.	Dy.Punctuality	-	08552-229780	8991112752
Guntur Div.	DM Cell /Control Conf.Hall	070-32928 32929	1072 0863-2216434 0863-2216435	8991112758

ARTs Number

Division	ART	PSTN	Satellite Phone Nos.
Secunderabad Div.	-	-	8991112741
Kazipet	-	-	8991112743
Bellampalli	-	-	8991112744
Hyderabad Div. Nizambad	-	-	8991112757
Nanded Div. Purna	-	-	8991112761
Akola	-	-	-
Vijayawada Div.	-	-	8991112747
Rajahmundry	-	-	8991112749
Bittragunta	-	-	8991112750
Guntakal Div.	-	-	8991112751
Gooty	-	-	8991112754
Dharmavaram	-	-	8991112753
Renigunta	-	-	8991112755
Guntur Div.	-	-	8991112759

ARMV Numbers

Names of Zones, Division Railways and stations	Location	PSTN	Satellite Phone Nos.
Secunderabad Div.	-	-	-
Kazipet	-	-	-
Hyderabad Div.	Nizabad	-	7093551085
Nanded Div.	MRV/Purna, MRV/Akola	-	7028085615, 7028085616
Vijayawada Div.	-	-	8991112748
Guntakal Div.	-	-	-
Guntur Div.	-	-	-

Railway Hospitals and Health units on SCR

South Central Railway Central Hospital
3.4 (167) · Government hospital
Rail Kalyan

Secunderabad division

There are ten Health units at Hyderabad, Chilakalaguda, Poly clinic, kazipet, Diesel Shed Colony, Kazipet, Ramagundam, Bellampalli, Vikarabad, Parlivaidynath, Dornakal, Bhadrachalam road

Vijayawada Division

There is one Divisional Hospital at Vijayawada, one Sub-divisional Hospital at Rayanapadu and 11 health units at Bhimavaram, Samalkot, Bitragunta, Ongole, Tenali, Rajahmundry, Tuni, Eluru, Gudur, Satyanarayanapuram, Gudiwada

Guntakal Division

There is one divisional Hospital at Guntakal and 10 Health units at Pakala, Nandaluru, Reniguntal, Raichur, CRS/TPSY/RU, Dharmavaraam, Dhone, Madanapalli Road, Gooty,. Kadapa

Guntur division

There is one divisional Hospital at Guntur and three health unit at Donakonda, Nadikudi, Nandyak

Nanded division

There is one divisional hospital at Nanded, one sub divisional hospital at Purna and three HU at Kinwat, Jalna and Akola.

Hyderabad division

Five Health Units are located at Kacheguda, Moul-ali, Mahaboobnagar, Kurnool Town and Nizamabad.

IMPORTANT CONTACT NUMBERS – GOVERNMENT OF TELANGANA
REVENUE (DM) DEPARTMENT – TELANGANA SECRETARIAT

Officer/Office	Contact Number/s
CM Office	
Principal Secretary	040-23454664, 9491144333 ;
Secretary	Fax: 040-23454828, 09830056753
Special Secretary	040-23454664, 9491144333
Special Secretary	040-23452421
Principal Secretary	040-23454071, 66975289
Secretary	
Additional Secretary	
Chief Secretary	(O) 040- 23455340 (F) 040- 23452620 Mob-09908569998 Email-cs@telangana.gov.in
Principal Secy/Relief Commissioner	(O) 040-23450779 (F) 040-23454293 (M) 9246542888 Email- commr_dm@telangana.gov.in
Revenue (DM) Department	
Commissioner for Disaster Management	
Commissioner & EO Secretary	040-23450779, 9246542888, Fax: 23454293
Special Commissioner	040-23450779, 23454088, 23454293, 9491105705
Commissioner Spl. Chief Secretary (FAC)	040-23450779 9849020575 Fax: 23451819

Telangana State Disaster Response Fire Services,

2nd floor, Police Head Quarters Building, (CID Building), Lakdi-ka-pul, Hyderabad-500004

Contact No. (040) 23442944,23442955,
e-Mail: ts_firechief[at]yahoo[dot]com

.No.	Designation	Contact Details	Address
1	Director General	04023442944 ts_firechief[at]yahoo[dot]com 04023442955	Hyderabad, Telangana State
2	Director	04023442944 9849906105 adfire.telangana[at]gov[dot]in	
3	Addl.Director	04023442944 7396888101 adfs4u[at]yahoo[dot]com	
4	Administrative Officer	8978823440 aofire.telangana[at]gov[dot]in	
5	Junior Administrative Officer	9963741793 jaofirehyd.telangana[at]gov[dot]in	
6	Junior Administrative Officer	9701367590 jaofire.telangana[at]gov[dot]in	
7	P.A. to DGFS	8096311013 dgpafire.telangana[at]gov[dot]in	
8	Addl. Public Prosecutor	addlpp_fire[at]yahoo[dot]com	

Regional Officers

S.No.	Designation	Contact Details
1	Regional Fire Officer-Central Region	8008559142 rfo_cr[at]yahoo[dot]com
2	Dy. Director, TFSCDTI, Vattinagulapalli	9989607711 rfo_dd[at]yahoo[dot]com

Web Information Manager/Nodal Officer

S.No.	Designation	Location	Contact Details	Address
1	Dy. Director, TFSCDTI, Vattinagulapalli		9989607711 rfo_dd[at]yahoo[dot]com	Telangana State Disaster Response & Fire Services, 2nd floor, Police Head Quarters Building, (CID Building),Lakdi-ka-pul, Hyderabad-500004.

IMPORTANT CONTACT NUMBERS – GOVERNMENT OF ANDHRA PRADESH
REVENUE (DM) DEPARTMENT – A.P. SECRETARIAT

Officer/Office	Contact Number/s
CM Office **1st Block, 1st Floor,** **Interim Government Complex,** **A.P Secretariat Office, Velagapudi,** **Guntur, Andhra Pradesh.**	**Sri. Adityanath Das, IAS, Chief Secretary to Government of Andhra Pradesh,** Phone: 0863-2441024 Email:cs@ap.gov.in **Sri Solomon Arokia Raj,IAS, Secretary to C.M.** Phone:0863-2446680/81 Email:secy-cmo@ap.gov.in **Sri K.Dhanajaya Reddy,IAS, Additional Secretary to Chief Minister**, Phone:0863-2446667/624 9849908692 Email:addlsecy.apcm@gmail.com **Dr. Mukthapuram Hari Krishna, Special Officer to Chief Minister,** Phone:0863-2441111 8332007777 Email:splofficer-cm@ap.gov.in **Sri.P.Krishna Mohan Reddy, OSD to CM** 0863-2446603 9849904123
NDMA **Vice Chairman** **Member** **Member** **Member** **Member**	**BSNL: 011-26701710 Mobile: 09211822999** **BSNL: 011-26701775 Mobile: 09871837999** **BSNL: 011-26701777 Mobile: 09810111328** **BSNL: 011-26701735 Mobile: 09810203406** **BSNL: 011-26701736 Mobile: 09848046677 & 09810809456**
Army Commander, **HQ (Andhra Sub-area)** **Colonel, General Staff (-do-)**	**BSNL: 040-27862278 Mobile:09849044764** **BSNL: 040-27862086 Mobile:09849005243**
Air Force **Wing Commander** **Group Captain,** **Begumpet Air Force Stn.** **Air Office Commander, Hakimpet**	**BSNL: 040-27862282 Ext.407 Mobile:09866638796** **BSNL: 040-27753905 Mobile:09849022747** **BSNL: 040-27862064, 2282 to 87**
D M Control Room	**Phone/Fax : +91 8645246600** **Email : seoc-apsdma@ap.gov.in** **Toll Free No : 18004250101**
Command control vijayawada	**08520909409**
Police control room vijayawada	**0866-2576956, Cell: 9440906878, DIAL 100**
Control Room/s	**Toll free No.1077 common to all districts within the district limits only** **Toll free No.1070 – Main Control Room, Secretariat**

1.Nodal Officers>>A P Flood Control Room

Office MobileNo : 0866-2574726, Office Email : apfloodcell@gmail.com
Address : Vijayawada

2.Nodal Officers>>AIR FORCE

Chief Operations Officer

Office LandLine No : 040-27813064, Office MobileNo : 9441697054
Office Email : coobegumpet@gmail.com
Address : Hyderabad

Chief Administrative officer

Office LandLine No : 040-27813064, Office MobileNo : 9441697054
Office Email : coobegumpet@gmail.com Address : Hyderabad

3. Nodal Officers>>AP Fire Services

Addl.Director

- Office LandLine No : 0866-2570102, Office MobileNo : 9849906390
- Office Email : adfs_apfireservices@yahoo.com
- Address : Vijayawada

4.Nodal Officers>>Cost Guard

Asst.Commd

Office MobileNo : 9987497241
Office Email : cgs_knd@indiancoastguard. nic.in

5.Nodal Officers>>Indian Army Area Commander Secunderabad

Area Commander

- Office MobileNo : 9403567888
- Office Email : goldenpalmasa@gmail.com

6.Nodal Officers>>National Institute of Disaster Management (NDMA)

Duty Officer(Nodal Officer)

Office LandLine No : 011-26701728
Office MobileNo : 9810340841
Office Email : do.ops@ndma.gov.in

Sh.Deepak AhlawatDuty Officer(Alternate Nodal Officer)

Office LandLine No : 011-26701728, Office MobileNo : 7678537083
Office Email : ahlawat@ndma.gov.in

7.Nodal Officers>>NAVY

Commander

Office LandLine No : 0891-2812415, Office MobileNo : 7382264169
Office Email : noicap_navy@nic.in
Address : Visakhapatnam

8.Nodal Officers>>NDRF

Dy.Commandant

Office LandLine No : 0863-2293050, Office MobileNo : 9440998619
Office Email : commandant10thndrf @gmail.com
Address : Guntur

NDRFNDRF Control Room, A N U Cappus, Guntur Dt.,

Office LandLine No : +918632293050

9.Nodal Officers>>Petroleum and Explosives Safety Organization-Visakhapatnam Sub Circle Office

Office Deputy Chief Controller of Explosives
Office LandLine No : 0891-2722257

10.Nodal Officers>>SC RAILWAY

Dy.CE

Office LandLine No : 040-27823720, Office MobileNo : 9701370212
Office Email : dy.celchq@gmail.com
Address :: Hyderabad

Andhra Pradesh State Disaster Management Authority (APSDMA)

Designation	Phone	
Special Commissioner (Disaster Management) & Ex-Officio Additional Secretary to Government, Revenue (DM) Department, Managing Director (FAC), APSDMA	0863-2377099	commr_relief_rev@ap.gov.in
Executive Director	+91-9676957788, 0863-2377105	ed-apsdma@ap.gov.in
Administrative Officer	+91-8333905039	seshasrip-plg@ap.gov.in
SEOC Incharge	+91-8333905033	seoc-apsdma@ap.

Fire services
Director General of Fire Services, Government of Andhra Pradesh,
Govt. Offices, B.R.K. Rao Building, 1st Floor, B-Block, Tankbund Road,
Hyderabad – 500029, Andhra Pradesh.040-23451094/95 (F) 23451333
0866 - 2570101ap_firechief[at]yahoo.com

IMPORTANT CONTACT NUMBERS – GOVERNMENT OF MAHARASHTRA

S. No.	Designation	Telephone Nos. (Office)	Telephone Nos. (Residence)
1	Mumbai DM Helpline	**108**	**….**
2	Chief Secretary	**022 – 22025042**	**022 – 22846604**
3	Principal Secretary & Special Enquiry	**022 – 22028762 / 22025162**	**022 – 22040546**

4	Additional Chief Secretary (Home)	**022 – 22029059**	**022 – 22836688**
5	Principal Secretary (Home & Law and Order)	**022 – 22023572**	**022 – 23678620**
6	Principal Secretary (Earthquake rehabilitation)	**022 – 22025073 / 22023039 / 22021984**	**022 – 22818226**
7	Principal Secretary (Public Health)	**022 – 22873848 / 22026579**	**022 – 24966116**
8	Director General of Police	**022 – 22026672**	
9	Commissioner of Police	**022 – 22621855 / 22625020**	
10	Civil Defense	**022 – 22611928**	
11	BEST	**022 – 22085888 / 22856262**	
12	GRP Control (Byculla)	**022 – 23081725**	
13	IG – GRP, Byculla	**022 – 22051914**	**022 – 24965887**
14	Air Force Exchange	**022 – 23714982 / 23714963**	
15	Naval Exchange	**022 – 22663030 / 22664949**	
16	Military Exchange, Coast Guard	**022 – 22151701**	
17	HPCL – Sr. Manager	**022 – 25540531**	**022 – 25545169**
18	IOC	**022 – 26400926 / 26423272**	
19	GM Operation / IOC	**022 – 26400524**	**022 – 28147764**
20	BPCL Ballard Pier	**022 – 22713000 / 22714000**	
21	Fire Brigade	**101** **022 – 23076111 / 23086181**	
22	Chief Fire Officer	**022 – 23086181, 182, 183**	**022 – 22882787**
23	Commissioner, MGCM	**022 – 22620251 Ext. 3109 / 22620525**	**022 – 24937290 / 24954680**
24	Additional Commissioner, MGCM	**022 – 22620251 Ext. 2314 / 22620149**	**022 – 23670078**

Director & Fire Adviser,
Government of Maharashtra, Headquarter of Directorate of Maharashtra Fire Service,
Vidyanagari, Hans Bhugra Marg, Santacruz East, Mumbai – 400098,
022-26677555/26670438/439 (F) 26660287, 26871144
directormfs[at]live[dot]com
directormfs[at]mahafireservice[dot]gov[dot]in

IMPORTANT CONTACT NUMBERS – GOVERNMENT OF MADHYA PRADESH

S. No.	Designation	Telephone Nos. (Office)	Telephone Nos. (Residence)
1	Chief Secretary	**0755 – 2441370 / 2441848**	**0755 – 2553090**
2	Dy. Secretary	**0755 – 2441085**	**0755 – 2441145**
3	Secretary (CM's Secretariat)	**0755 – 2441742**	**0755 – 2441514**
4	Secretary (CM's Secretariat)	**0755 – 2441386**	**0755 – 2466153**
5	Principal Secretary (Home)	**0755 – 2441619**	**0755 – 2441738**
6	DGP	**0755 – 2443500**	**0755 – 2443333**
7	ADG(Railway)	**0755 – 2773405**	**0755 – 2768021**
8	IG (Railway)	**0755 – 2770652**	**0755 – 2575011**
9	Principal Secretary (Information & PR)	**0755 – 2441816 / 2556831**	**0755 – 2571466**
10	Principal Secretary (Medical, Health & FP)	**0755 – 2441424**	**0755 – 2441681**

IMPORTANT CONTACT NUMBERS – GOVERNMENT OF KARNATAKA

Designation	Office	Residence	Mobile
Chief Secretary	080 – 22252442	080 – 22353124	09880003696
Home Secretary	080 – 22256774	080 – 25355353	09845666077
DGP	080 – 22842111	080 – 22293525	09741262262
ADGP (L&O)	080 – 22211834	080 – 26684668	09449084688

State Police Control Room	080 – 22211777	….	….
Disaster Management Agency (Secretary)	080 – 22032582	080 – 23512222	09448290807
Deputy Secretary	080 – 22392451	080 – 23118988	09449446182

Director General of Police Fire Service, Government of Karnataka, Karnataka State Fire Force, No. 1 & 2 Annaswamy Mudaliar Road, Bangalore – 560 042, Karnataka. 080-25570733, 22971504/ 22971501/ (F) 22971501 , directorksfes[at]gmail[dot]com/ ghcdhqrsban[at]gmail[dot]com

TELANGANA STATE DISTRICT OFFICIALS(COLLECTOR AND SP)

District Name	Designation	Office Phone	Email
Adilabad	Collector	08732-227402	collector_adbd@telangana.gov.in
Adilabad	Superintendent of Police	9440795000	sp@add.tspolice.gov.in
Bhadradri Kothagudem	Collector (FAC)	08732-226203	collector-bdd@telangana.gov.in
Bhadradri Kothagudem	Superintendent of Police	08744-243666	sp@kgm.tspolice.gov.in
Hyderabad	Collector	040-23202833	collector_hyd@telangana.gov.in
Hyderabad	Commissioner of Police	040-23261666	cp@hyd.tspolice.gov.in
Jagtial	Collector	08724-222204	collector-jgtl@telangana.gov.in
Jagtial	Superintendent of Police	08724-222133	sp@jgl.tspolice.gov.in
Jangaon	Collector	8978600744	collector-jgn@telangana.gov.in
Jangaon	Deputy Commissioner of Police	9491089147	dcpwestzonejgn@gmail.com
Jayashankar Bhoopalpally	Collector	7995088365	collector-jsk@telangana.gov.in
Jayashankar Bhoopalpally	Superintendent of Police (I/c)	08713-222380	sp@bhp.tspolice.gov.in
Jogulamba Gadwal	Collector	9100901600	collector-gdwl@telangana.gov.in
Jogulamba Gadwal	Superintendent of Police	08546-273000/01	spjlmb@jlmb.tspolice.gov.in
Kamareddy	Collector	8468220252	collector-kmr@telangana.gov.in
Kamareddy	Superintendent of Police	8332931100	sp@kmr.tspolice.gov.in
Karimnagar	Collector	0878-2265206	collector_krmn@telangana.gov.in
Karimnagar	Commissioner of Police	0878-2262303	cp@knr.tspolice.gov.in
Khammam	Collector	08742-224641	collector_kmm@telangana.gov.in
Khammam	Commissioner of Police	08742-220000	cp@kmm.tspolice.gov.in
Kumuram Bheem Asifabad	Collector	08733-279401	collector-kb@telangana.gov.in
Kumuram Bheem Asifabad	Superintendent of Police	08733-279833	-
Mahabubabad	Collector (FAC)	7995085423	collector-mbd@telangana.gov.in
Mahabubabad	Superintendent of Police	08719-242666,	sp@mbd.tspolice.gov.in

District Name	Designation	Office Phone	Email
		240000	
Mahabubnagar	Collector	08542-242210	collector_mbnr@telangana.gov.in
Mahabubnagar	Superintendent of Police	08542-243300	sp@mbnr.tspolice.gov.in
Mancherial	Collector	9492120800	collector-mncl@telangana.gov.in
Mancherial	Deputy Commissioner of Police	08736-252534	
Medak	Collector	08452-223111	collector_mdk@telangana.gov.in
Medak	Superintendent of Police	08452-221666/67	sp@mdk.tspolice.gov.in
Medchal-Malkajgiri	Collector (FAC)	040-29700824	collector-mdl@telangana.gov.in
Medchal-Malkajgiri	Superintendent of Police	040-27854081	
Mulugu	Collector	08715-223322	collector-mlg@telangana.gov.in
Mulugu	Superintendent of Police	7901100333	sp-mulugu@tspolice.gov.in
Nagarkurnool	Collector	9100101425	collector-ngkl@telangana.gov.in
Nagarkurnool	Superintendent of Police	08540-230333	sp@nkl.tspolice.gov.in
Nalgonda	Collector	08682 - 232302, 232345	collector_nlgd@telangana.gov.in
Nalgonda	Superintendent of Police	08682-222306	sp@nlg.tspolice.gov.in
Narayanpet	Collector	9000342342	collector-nrpt@telangana.gov.in
Narayanpet	Superintendent of Police	9440795700	-
Nirmal	Collector	8331997099	collector-nml@telangana.gov.in
Nirmal	Superintendent of Police	08734-240233	-
Nizamabad	Collector & District Magistrate	08462-221966	collector_nzbd@telangana.gov.in
Nizamabad	Superintendent of Police	08462-232203	sp@nzb.ts.gov.in
Peddapalli	Collector	8978887713	collector-pdpl@telangana.gov.in
Peddapalli	Commissioner of Police	8332941100 / 9440900683	cp.rgm.tspolice@gov.in
Rajanna Sircilla	Collector	7032867111	collector-rsl@telangana.gov.in
Rajanna Sircilla	Superintendent of Police	8332831100	spsircilla@gmail.com
Rangareddy	Collector	040-23235642, 23234774	collector_rr@telangana.gov.in
Rangareddy	Superintendent of Police	08416-255601	
Sangareddy	Collector	08455-276555	collector-srd@telangana.gov.in
Sangareddy	Superintendent of Police	08455-276600	sp@sgr.tspolice.gov.in
Siddipet	Collector	7893206745	collector-sdpt@telangana.gov.in

District Name	Designation	Office Phone	Email
Siddipet	Commissioner of Police	08457-226533	cp@sdpt.tspolice.gov.in
Suryapet	Collector	9493721234	collector-srpt@telangana.gov.in
Suryapet	Superintendent of Police	08684-254100	sp@spt.tspolice.gov.in
Vikarabad	Collector	9959090781	collector-vkb@telangana.gov.in
Vikarabad	Superintendent of Police (FAC)	08416-255601/02	sp@vkb.ts.gov.in
Wanaparthy	Collector	08545-233550	collector-wnp@telangana.gov.in
Wanaparthy	Superintendent of Police	08545-233321	sp@wnp.tspolice.gov.in
Warangal (Rural)	Collector	0870-2511777	collector-wglr@telangana.gov.in
Warangal (Rural)	Commissioner of Police	0870-2578155	sp@wrlr.tspolice.gov.in
Warangal (Urban)	Collector	0870-2567107	collector_wgl@telangana.gov.in
Warangal (Urban)	Commissioner of Police	0870-2567107/65	cp@wrlc.tspolice.gov.in
Yadadri Bhuvanagiri	Collector	8331997001	collector-ydr@telangana.gov.in
Yadadri Bhuvanagiri	Deputy Commisioner Of Police	08685-242504	dcp-bngr-rck@tspolice.gov.in

DISTRICT COLLECTORS OF ANDHRA PRADESH

Name/Designation	District	Contact Numbers
AP Division		
Collector collector_antp@ap.gov.in	Anantapur ***Website***	+91 8554 275806 **(O)** +91 8554 240801 **(OF)**
Collector collector_ctr@ap.gov.in	Chittoor ***Website***	+91 8572 241200 +91 8572 240500 +91 8572 240744 **(O)** +91 8572 227201 **(OF)**
Collector collector_kdp@ap.gov.in	YSR District	+91 8562 244301 +91 8562 244676 +91 8562 244168 **(O)** +91 8562 244437 +91 8562 244302 **(OF)**
Collector collector_egd@ap.gov.in	East Godavari ***Website***	+91 884 2361200 **(O)** +91 884 2361300 **(OF)**

Collector collector_gntr@ap.gov.in	Guntur	+91 563 2234200 +91 563 2234458 **(O)** +91 563 2234824 **(OF)**
Collector collector_krsn@ap.gov.in	Krishna	+91 8672 252882 +91 8672 252668 **(O)** +91 8672 252000 +91 8672 252222 **(OF)**
Collector collector_krnl@ap.gov.in	Kurnool ***Website***	+91 8518 231877 +91 8518 230947 **(O)** +91 8518 220131 **(OF)**
Collector collector_nlr@ap.gov.in	Nellore ***Website***	+91 861 2331999 **(O)** +91 861 2325025 +91 861 2331235 **(OF)**
Collector collector_pkm@ap.gov.in	Prakasam	+91 8592 231222 **(O)** +91 8592 231443 **(OF)**
Collector collector_sklm@ap.gov.in	Srikakulam ***Website***	+91 8942 222555 **(O)** +91 8942 222565 **(OF)**
Collector collector_vspm@ap.gov.in	Visakhapatnam ***Website***	+91 891 2526999 **(O)** +91 891 2754106 **(OF)**
Collector collector_vznm@ap.gov.in	Vizianagaram ***Website***	+91 8922 276720 **(O)** +91 8922 276177 **(OF)**
Collector collector_wgd@ap.gov.in	West Godavari ***Website***	+91 8812 230051 **(O)** +91 8812 231844 **(OF)**

Superintendent of Police of Andhra Pradesh

District	Designation	Land line	Mobile No.	Email
Ananthapuram	Supdt. of Police	08554 240105 274307 274802 ®	**9440796800**	**spatp1@gail.com**
chittoor	Supdt. of Police	**08572-235700 234000 233303**	**9440796700**	**sp@ctr_appolice.gov.in**

Tirupathi urban		**0877 228900 228901**	**9440796702**	
East godavari	Supdt. of Police	**0884 2362000**	**94407 96500**	**sp@eg_appolice.gov.in**
Rajamundry urbanb	Supdt. of Police	**0883 2461330**	**9440796502**	**sp@rjyu.appolice.gov.in**
Guntur rural	Supdt. of Police	0863 2234000	9440796200	**sp@gtrr.appolice.gov.in**
Guntur urban	Supdt. of Police	0863 2233222(O) 2260151(R)	8688831300	
Kadapa Dr.Y.S.Raja sekhar reddy	Supdt. of Police	**08562-242198 244993**	**9121100500,**	**spkadapa2014@gmail.com**
Vijayawada city	Comm. Of police	(O)0866-2493333 (R) 0866-2492222	9440050945	cp@vza.appolice.gov.in
Krishna	Supdt. of Police	(O) 08672-223666 (R) 08672-252800	9440796400	sp@kri.appolice.gov.in
Kurnool	Supdt. of Police	**08518 235442 229078**	**9440627214**	
Nellore	Supdt. of Police	(O) 0861-2331933, 2331700, (R)2331633	9440796300	sp@nlr.appolice.gov.in
Prakasam	Supdt. of Police	(O)08592-231700 (R) 08592-231202	9121102100, 9440627100	
Visakhapatnam	Comm. Of police	(O) 0891-2551104, 2562709 (R) 0891-	9849900200	

		2754431		
Visakhapatnam city		562709 (O) 2562763(F) 2525500(R) 2569811(F)		
West Godavari	Supdt. of Police	(O) 08812-232662; 222890 (R) 08812-230503	9440796502	

MAHARASHTRA STATE DISTRICT OFFICIALS (COLLECTOR AND SP)

District Name	Designation	Office Phone	Mobile
Beed	Collector	02442-222201	
Beed	Superintendent of Police	02442-222302	
Latur	Collector	02382-224001	
Latur	Superintendent of Police	02382-243000	
Nanded	Collector	02462-237101	9004444338
Nanded	Superintendent of Police	02462-234504	9158888338
Parbhani	Collector	02452-223555	9422434299
Parbhani	Superintendent of Police	02452-223444	7798885176
Jalna	Collector	02482-224700	7798977831
Jalna	Superintendent of Police	02482-225601	8007611453
Aurangabad	Collector	0240-2331200	7720010751
Aurangabad	Superintendent of Police R	0240-2380808	9823691000
Nashik	Collector	0253-2578500	9922648400
Nashik	Superintendent of Police	0253-2309700	9823133910
Hingoli	Collector	02456-221701	9922897000
Hingoli	Superintendent of Police	02456-221744	9421887774
Washim	Collector	-07252233400	8806268811
Washim	Superintendent of Police	07252-232134	9594477714

District Name	Designation	Office Phone	Mobile
Akola	Collector	0724-2424442	9921044466
Akola	Superintendent of Police	0724-2435002	9823885899

KARNATAKA STATE DISTRICT OFFICIALS(COLLECTOR AND SP)

District Name	Designation	Office Phone	Email
Bidar	Collector	08482-225409	
Bidar	Superintendent of Police	08482-226700	
Kalaburagi	Collector	08472-263602	
Kalab	Superintendent of Police	08482-278601	

Vellore District Disaster Management Contact Details

Toll Free No. : 1077

Tahsildar , Disaster Management :-

Mobile No : 93840 56214

Telephone : 0416 – 2258016

Fax No : 0416 – 2253034

Personal Assistant (General) to The District Collector :-

Mobile No : 9445008159

Telephone : 0416 – 2252501

Fax No : 0416 – 2253034

Designation	Mobile No	Landline No	Email
DISTRICT COLLECTOR		**0416-2252345**	**collrvel[at]nic[dot]in**
District Revenue Officer	**9445000904**	**0416-2253502**	**dro[dot]tnvlr[at]nic[dot]in**
Superintendent of Police	**9498111101**	**0416-2256802**	**spvellore[at]gmail[dot]com**

FORECASTING OF CYCLONE/STORM
TELEPHONE NUMBERS OF WEATHER WARNING CENTERS

S.No.	Weather Warning Center	STD number	Telephone Number
1	Visakhapatnam	0891	2746506, 2755214
2	Machilipatnam	08672	231291
3	Secunderabad	040	27904852
4	Chennai	044	28271951, 28271004

I Amount of rain fall 5 Cm and above in 24 Hrs. considered to be dangerous.
II Amount of wind velocity 65 Kmph and above considered to be dangerous.

LIST OF HOSPITAS – PRIVATE AND GOVERNMENT WITHIN THE TERRITORY OF SC RAILWAY WITH FACILITIES AVAILABLE SUCH AS NO. OF BEDS, AMBULANCE SERVICES, BLOOD BANKS, ETC.,

(WITHIN HYDERABAD METRO CITY)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	Apollo	Secunderabad	040 – 27718888, 1860 500 1066
2	Apollo	Kukatpally	040 – 23160039, 23160041 & 23607777
3	Apollo	Jubilee hills	91-40-2360 7777 / 5555 / 2000
4	Andhra MahilaSabha	Vidyanagar	040 – 27681100
5	BHEL Hospital	Ramachandrapuram	040 – 23183228
6	Continental Hospital	Gachibowli	040-97000000
7	CDR	Hyderguda	040 – 23221221
8	CARE Hospital	Nampally	040 – 30114500, 61656565
9	CARE Hospital	Banjara Hills	040 - 55517777
10	CARE Hospital	Secunderabad	040 61656565
11	Gandhi Hospital	Secunderabad	040 – 27505560, 9849902979
12	Government Chest Hospital	Hyderabad	040 – 23814421
13	Government ENT Hospital	Kothi	040 - 24740245
14	KamineniHositals	LB Nagar	040 – 39879999
15	Mahaveer Hospital	Mehdipatnam	040 – 23497399
16	Mediciti	Near Secretariat	040 – 23231111, 23237646
17	Medwin	Hyderabad	040 – 23206666
18	NewcitiHosp[ital	Hyderabad	040 – 23546318, 23240258
19	Nilofer Hospital	Hyderabad	040 – 23314095, 9866894898
20	Osmania Hospital	Kothi	040 – 24600146
21	Railway Hospital	Lallaguda	040 – 27001134
22	Usha Mullapudi	Gajularamaram	040 – 23090609
23	Yashoda	Somajiguda	040 – 23312783
24	Yashoda	Malakpet	040 – 24556257
25	Heritage Medical Centre	Hyderabad	9848878697
26	LV Prasad Eye Institute	Banjara Hills	040 – 23548339
27	St. Theresa Hospital	Hyderabad	040 – 23701013
28	NIMS	Hyderabad	040 – 23390933
29	Yashoda Hospital	Secunderabad	040 – 45674567
30	Sunshine hospitals	Secunderabad	07947291637
31	Shenoy hospitals	East Maredpally	07947316170
32	Srikara Hospitals	Secunderabad	46460000
33	Srikara Hospitals	LB Nagar	66000108
34	Care Hospital	Gachibowli	9866390032
35	KIMS Hospital	Ministers Road Secunderabad	040 – 44885000

36	Vijaya Health Care	Secunderabad	040 – 67222999
37	Meena Narsing Home	Tukaram gate, lallaguda	040 – 27730674
38	KG Hospital	Tukaram Gate, Lallaguda	040 – 27730384
39	Manjari Narsing Home	Lalapet	040 – 27061399
40	Military Hospital	Lalbazar	9100733311

(Within HYB Division other than Hyderabad city area)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1.	Government Hospital	ALPR	9640949141
2.	Government Hospital	AKE	08452 – 224888
3.	Government Hospital	BDVL	8790409496
4.	Government Hospital	BKU	9440113494
5.	Government Hospital	BLSA	7588628559
6.	Government Hospital	BSX	8885893830
7.	Government Hospital	NVT	9550277599
8.	Government Hospital	DAB	9423436531
9.	Government Hospital	DHP	9985940043
10.	Government Hospital	DKC	08504-280201
11.	Government Hospital	DUU	08518 – 255422
12	Government Hospital	GLY	08542-241111,08542-242431
13.	Government Hospital	GWD	08546 – 272111
14.	Government Hospital	IDL	08462-226310
15.	Government Hospital	JCL	9848290835
16.	Government Hospital	JKM	9440409542
17.	Government Hospital	KEK	02465-244438, 8329347252
18.	Government Hospital	KMC	9848346657
19.	Government Hospital	KQQ	08504-230201
20.	Government Hospital	KRNT	08518 – 255422
21.	Government Hospital	MBNR	08542 – 241111, 242431
22.	Government Hospital	ME	08454 – 235260, 9849612080
23.	Government Hospital	MED	9963643373
24.	Government Hospital	MOA	08502-2461019963643373
25.	Government Hospital	MOB	9963643373
26.	Government Hospital	MZL	08452 – 247066, 9502550027
27.	Government Hospital	NVT	9550277599
28.	Government Hospital	NZB	08462 – 221813, 221513, 9440409242
29.	Government Hospital	PASR	08546-272111
30.	Government Hospital	PDO	08546-272111
31.	Government Hospital	SCP	9849056381
32.	Government Hospital	SHNR	9849225655
33.	Government Hospital	SRNR	9949240834
34.	Government Hospital	SVN	8007817821, 7588425880
35.	Government Hospital	TMD	9848346657
36.	Government Hospital	TMX	9440495450

37.	Government Hospital	UKD	08518-255422
38.	Government Hospital	UPW	9848346657
39.	Government Hospital	UMRI	8007817821, 7588425880
40.	Government Hospital	UR	8790409496
41.	Government Hospital	VDI	08516 – 275705, 9440676890
42.	Government Hospital	WDR	9014510845
43.	Government Hospital	WPR	08545 – 227799, 9441510668

(Within SC Division other than Hyderabad city area)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	Government Hospital	ALER	08685 – 281644
2	Area Hospital (Rly)	BDCR	08744 – 242267 244955
3	Rajeshwari Maternity Hospital	BGSF	08727 – 253225
4	Government Hospital	BHLK	08464 – 262400
5	Methodist Hospital	BHLK	08464 – 261061
6	Government Hospital	BIDR	08482 – 227392 225474 226426
7	Lalithamma Hospital	BIDR	08482 – 225323 09440042491
8	Apex Hospital	BIDR	08482 – 225728 220501 09449825728
9	Government Hospital	BKL	08749 – 275511
10	Government Hospital	BN	08685 – 278244 278384 9440439164
11	PHC Hospital	CKN	08742 – 284686 284372
12	Government Hospital	CT	08474 – 236180 09248163770
13	Dr. Girish Clinic	DKJ	08719 – 117877 9966059088
14	Government Hospital	GNP	08711 – 220889 9849467513
15	Teja Nursing Home	”	08711 – 220468
16	JVM Nursing Home	”	08711 -220348
17	Sai Nursing Home	”	08711 -220219
18	Government Hospital	GTU	02446 – 252539
19	Government Hospital	HBU	08484 – 263625
20	Siddappa Hospital	HBU	08484 – 263615
21	Government Hospital	HER	02385 – 267686
22	Government Hospital	HSP	0870 – 255211
23	Government Hospital	JMKT	08727 – 9849310138

24	Umapriya Nursing Home	”	08727 – 253307
25	JMKT Nursing Home	”	08727 – 253453
26	Government Hospital	JOA	02381 – 254082
27	Government Hospital	JPTN	08654 - 222484
28	Government Hospital	KDM	9440166578
29	Government Hospital	KMNR	08485 – 285228 285229
30	Dr. Vishwanadha Hospital	”	08485 – 285234 09448519207
31	Cure Hospital	KMT	08742 – 234077 234088
32	Kinnera Hospital	”	08742 – 228366
33	Government Hospital	KOHR	08451 – 289323
34	Government Hospital	KQT	08441 – 228573
35	Railway Poly Clinic	KZJ	0870 – 2546124
36	T.B. Hospital	KZJ/HNK	0870 – 2578100 2423090
37	Jaya Hospital	KZJ/HNK	0870 – 2553844 2578100
38	Government Hospital	LTRR	02381 – 222008
39	Government Hospital	MABD	08719 – 240403
40	Private Hospital	”	08719 – 240332
41	G.V. Hospital	MAGH	07173 – 222136
42	Government Hospital	MCI	08736 – 252028
43	Krithi Nursing Home	”	08736 – 253854
44	Samatha Nursing Home	MDR	08749 – 273212 274224 274811 273390 274201
45	Praja Vidyasala	”	08749 – 274243
46	Government Hospital	MRF	08416 – 268236
47	Private Hospital	MTMI	09440186056 09948849451
48	Sai Ramprasad Hospital	NAW	08411 – 248256 248604
49	Dr. Krishnamurthy Nursing Home	PBP	08716 – 255152 220210
50	Government Hospital	PDPL	08728 – 221014 9603366784 9949016111
51	Gupta Hospital	”	08728 – 224010
52	Jaya Nursing Home	”	08728 – 222227
53	Government Hospital	PNF	02382 – 236554 236478
54	Railway Hospital	PRLI	02446 – 225606 09730471544
55	Government Hospital	”	02446 -223098
56	Accident Hospital	”	02446 – 222086
57	Munde Hospital	”	02446 – 223111 0942240866

58	Karad Hospital	”	02446 – 223344 09422330358
59	Laxmi Clinic	PTKP	9849608407
60	Sirua JPS	RDM / GDK	08728 – 242700 244567 246789
61	Medbone Hospital	”	08728 – 247788
62	Railway Health Unit	”	08728 – 2551088
63	Kavitha Clinic	RGP	9490854252
64	Government Hospital	SEM	08441 – 276163 09448577384
65	Dr.Desai Hospital	”	08441 – 276229
66	Dr.Deshpande Hospital	”	08441 – 276239
67	Government Hospital	SKP	08417 – 222294 9440684466
68	Government Hospital	SKZR	08738 – 238078 238038
69	G.V. Hospital	SRUR	08738 – 241418
70	Private Hospital	SSPD	08416 – 267536
71	Government Hospital	TDU	08411 – 272100
72	Balaji Nursing Home	”	08411 – 274066
73	Venkata Padmavathi Hospital	”	08411 – 272116
74	Government Hospital	UDGR	02385 – 256336 09422468082
75	Private Hospital	VKB	08416 – 255888
76	Private Hospital	”	9440248777
77	Private Hospital	”	9866761949
78	Private Hospital	”	9949135143
79	P.V. Hospital	WIRR	07173 – 255124
80	MGM Hospital	WL	0870 – 2433376 2421398
81	CKM Hospital	”	0870 – 2435606
82	ESI, Shivanagar	”	0870 – 2444936
83	Pruthivi Hospital	”	0870 – 2435804
84	Laxmi Nursing Home	”	0870 – 257611
85	Warangal Hospital	”	0870 – 2434353 2434363
86	Lifeline Hospital	”	0870 – 2568378
87	Apple Hospital	”	0870 – 2565230
88	Jaya Hospitals	”	0870 – 2577234
89	Rohini Hospital	”	0870 – 2579297
90	Dr. Srinivas Nursing Home	YSPM	08716 – 224210
91	Government Hospital	ZB	08451 – 282361
92	Ravali Nursing Home	ZN	08716 – 220921
93	Madhavi Nursing Home	“	08716 – 220505

(Within BZA & BZA Division)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	BBC	BZA	0866 – 2492300
2	Nagarjuna	”	0866 – 2554030
3	S.V.R. Neuro	”	0866 – 2494930
4	Help	”	0866 – 5515552, 2430112
5	Ravi Neuro	”	0866 – 2471031
6	City Cardiac	”	0866 – 2470881
7	CARE Hospital	”	0866 – 2431866
8	Usha Cardiac	”	0866 – 2483744
9	ESI	”	0866 – 2450215
10	RICH	”	0866 – 5566977
11	Railway Hospital	”	0866 – 2573437
12	Government Hospital Private Hospital	MBL	0861-2390692 0861-2390487
13	Government Hospital Private Hospital	VKT	
14	Government Hospital Private Hospital	VDE	40861-2330024 0861-2326751 0861-2315838
15	Government Hospital Private Hospital	NLR	0861-2326833, 2327009, 2331845, 2326751, 23252999
16	Government Hospital Private Hospital	KJJ	08622-275130 275144
17	Government Hospital Private Hospital	TTU, KVZ, UPD	08626-243524 08599-274022
18	Government Hospital Private Hospital	SKM	9848118549 08598-236215 236248, 236755, 236292
19	Government Hospital Private Hospital	TNR	08592-242305 & 9848635614 242537, 242640,242605
20	Government Hospital Private Hospital	SDM	08592-233270 242588, 242640
21	Government Hospital Private Hospital	OGL	08592-233270 231212, 232012, 283222, 232023
22	Government Hospital Private Hospital	KRV	08592-274629
23	Government Hospital Private Hospital	ANB	08592-270523
24	Government Hospital	UGD	08594-241700 & 9440144140 08592-275220

	Private Hospital		
25	Government Hospital Private Hospital	CJM	08594-241700& 9440144140 241268, 241268
26	Government Hospital Private Hospital	GALA	0866-257284 0866-2554702, 2770283
27	Government Hospital Private Hospital	MBD	08676-250042 & 9885423549 9391277250
28	Government Hospital	GWM	8676-253811
29	Government Hospital Private Hospital	PAVP	08676-259634, 08676-253811
30	Government Hospital	TOU	08656-221096
31	Government Hospital	VAT	08812-230401
32	Government Hospital	EE	08812-230401
33	Government Hospital Private Hospital	BMD	08812-230401 08829-222205
34	Government Hospital Private Hospital	PUA	08812-230401 08829-222205
35	Government Hospital Private Hospital	CEL	08829-282229 9849860444
36	Government Hospital Private Hospital	BPY	08818-221144
37	Government Hospital Private Hospital	TDD	08818-221144
38	Government Hospital Private Hospital	NBM	08818-221144
39	Government Hospital Railway Hospital	NDD	08813-221049 0883-2428837
40	Government Hospital Private Hospital	CU	8813-271192 9440104673
41	Government Hospital	GVN	0883-2473022
42	Government Hospital	RJY	0883-2473022
43	Government Hospital	DWP	08857-227260
44	Government Hospital	APT	08857-227260
45	Government Hospital	BVL	8857-236079
46	Government Hospital	MPU	0884-2375831
47	Government Hospital	SLO	328900
48	Government Hospital	SVPM	0884-2302021,2302131

49	Government Hospital	RBCS	08857-242303
50	Government Hospital	KPLH	08857-242303
51	Government Hospital	CCT	0884-2362842, 2302001, 2302008
52	Government Hospital	COA	2375831
53	Government Hospital	PAP	08869-251710
54	Government Hospital	GLP	08869-251723
55	Government Hospital Private Hospital	RVD	08869-251723 08854-253722 08854-276526
56	Government Hospital	ANV	08854-253722
57	Government Hospital Railway Health Unit/TUNI	HVM	253722-08854 9908261541
58	Government Hospital	TUNI	08854-253722& 9848066136
59	Government Hospital	GLU	08931-227125
60	Government Hospital	YLM	08931-231088
61	Government Hospital	REG	08931-231088
62	Government Hospital	YLM	08924-231088
63	Government Hospital	KSK	08924-220403
64	Government Hospital	BVM	08924-223340
65	Government Hospital ESI Hospital	RYP	0866-2572854 2540215
66	Government Hospital	KI	2827633
67	Government Hospital	RMV	0866-2572854
68	Government Hospital	NDM	0866-2572854
69	Government Hospital Private Hospital	GWM Kankipadu	08676-253811 0866-2821754
70	Government Hospital	DPD	08674-247050
71	Government Hospital	GDV	08674-247050
72	Government Hospital	KVM	08674-248513
73	Government Hospital	PAV	08672-248513
74	Government Hospital Private Hospital	MTM	08672-248513 08672-222302

			252628
75	Government Hospital	OTR	236420
76	Government Hospital	KKLR	08677-222079 994941386
77	Government Hospital	BVRM	08816-233662
78	Private Hospital	VVM	286864
79	Government Hospital	AVLI	08819-257724
80	Government Hospital	TNKU	08819-222175
81	Government Hospital	KLDI	08819-222175

(Within GNT city & in GNT Division)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	Government Hospital	GNT	0863 – 2220035, 2226007
2	St. Joseph's Hospital	"	0863 – 2234700, 0863 221 7137
3	Venkateswara Nursing Home	"	0863 – 2356111
4	Ashwini Clinic	"	0863 – 2220806
5	Padmavathi Nursing Home	"	0863 – 2222222 9440808621,22
6	Lalitha Super Specialities	"	0863 – 2222866, 2217401
7	Rangarao Nursing Home	"	0863 – 2223479
8	Samatha Hospitals	"	0863 – 2222487
9	People's Nursing Home	"	0863 – 2220038
10	Nightingale Hospital	"	0863 – 2235221
11	Ambulance Services	GNT	0863 – 2224487 2233971 2223222
12	Blood Bank/GNT Kumar Blood Bank	GNT	0863 3 – 2224080 2225313
13	NRI Hospital	MAG	08645 – 248521, 230101
14	Soumya Apollo Hospital	KCC	0866 – 2470577 2490577
15	Ramesh Hospital	GNT	0863-2377777
16	SHRI hospital	GNT	0863-2213999
17	Government Hospital	MRK	08596 – 222822
18	Samatha Hospital	MRK	08596-222801
19	Sravani Hospitals	"	08596 – 222550
20	Madhu Clinic	"	08596 – 226461
21	Santhi Nursing Home	"	08596 – 222222
22	Narasimha Reddy Hospital	TLU	9441076501
23	Appalagiri Hospital	TLU	9866644547
24	Government Hospital	CBM	08406 – 233777
25	Bhavani Nursing Home	CTYL	9951409849

26	Vennela Nursing Home	”	9885604454
27	Haritha Hospital	”	08682 – 242089
28	Divya Hospital	”	08682 – 243641
29	12th Batallion Police Hospital	SRMR	08682 – 284002 9848181874, 76
30	Kamineni Hospital	”	08682 – 304500
31	Government Hospital	NRT	08647 – 223232
32	Government Hospital	VKN	08646 – 275328
33	St. Xavier Hospital	”	08646 – 272084
34	Government Hospital	SYM	08646 – 275238, 9000936029
35	ICL Hospital	VNUP	9490758063, 9550444005
36	Government Hospital	PGRL	08649 – 256126, 7989615886
37	Government Hospital	KDGL	08689 – 242050
38	Nagarjuna Nursing Home	NDKD	9849888281, 9966621881
39	Government Hospital	MAG	08645 – 232530
40	NRI Hospital	”	08645 – 248521
41	Kali Gardens	NBR	0863 – 2293442, 2293564
42	Government Hospital	NLDA	08682 – 222001
43	Government Hospital	NDL	08514 – 242575
44	PHC	GZL	08514 – 282528, 7013699776
45	Government Hospital	GID	08405 – 242044, 241460
46	Government Hospital	MCLA	08642 – 222180
47	Sri Sai Multi Speciality Hospital	MRGA	08689 – 230456, 8520046888
48	Sri Srinivasa ENT Hospital	‘’	08689-243957, 9440787559
49	Ankitha Nursing Home	”	9581203626
50	Jeevan Jyothi Hospital	”	08689 – 244858
51	Sri Sai Ortho care, Dr. Srinivasa Raju		08689-240552, 230522 9848475782

(Within GTL Division)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	Government Hospital	AD	08512 – 253566, 231006, 253500, 253703
2	Private Hospitals	”	08512 – 253792, 253703, 252739, 253507, 252677, 252856
3	Government Hospital	ATP	08554 – 275001, 277762, 270332
4	Private Hospital	”	08554 – 274194
5	Government Hospital	BAY	08392 – 276250, 273411, 230575
6	Private Hospital	”	08392 – 230575, 230975
7	Government Hospital	CTO	08572 – 233437, 272585, 233515, 232554, 228102, 252440
8	Private Hospital	”	08572 – 229324
9	Government Hospital	DMM	08559 – 220313

10	Private Hospital	”	08559 – 220082, 222429
11	Government Hospital	DHNE	08516 – 223001, 222523
12	Private Hospital	”	08516 – 222564
13	Government Hospital	GY	08551 – 242305
14	Private Hospital	”	08551 – 252331
15	Government Hospital	GTL	08552 – 226897, 252331
16	Private Hospital	”	08552 – 227143, 226999, 226099, 227237, 226104
17	Government Hospital	GDR	08624 – 251804, 25153
18	Government Hospital	KDI	08494 – 224966
19	Private Hospital	”	08494 – 224330, 224188, 224284, 224094, 224237, 224112
20	Government Hospital	HX	08562 – 256800, 250351
21	Private Hospital	”	08562 – 253703, 256800
22	Government Hospital	KDP	08560 – 274221
23	Government Hospital	KHT	08578 – 222217
24	Government Hospital	KOU	08566 – 244463, 244077
25	Government Hospital	MALM	08512 – 279596
26	Government Hospital	NRPD	08473 – 262455
27	Private Hospital	”	08473 – 222445
28	Government Hospital	RU	0877 – 2274280
29	Private Hospital	”	0877 – 2275370, 2275375, 2275303, 2275150
30	Government Hospital	RC	08532 – 235740, 236201
31	Private Hospital	”	08532 – 233108, 227031, 230777, 236201
32	Government Hospital	RJP	08565 – 240258, 249324
33	Government Hospital	TPTY	0877 – 2286666, 2287777, 2255967, 2240522
34	Private Hospital	”	0877 – 2222196, 2228250, 2240001, 2232081, 2223636
35	Government Hospital	WADI	08474 – 202295
36	Government Hospital	YG	08473 – 252311, 252424

(Within NED Division)

S. No	Name of the hospital	Location	Telephone nos. with STD code
1	Government Hospital	ABZ	07258 – 231120
2	Private Hospital	”	07258 – 237757, 237731, 237763
3	Government Hospital	ADB	08732 – 232200, 226461
4	Private Hospital	”	08732 – 231325, 233547, 227057
5	Government Hospital	AK	0724 – 2434401
6	Railway Hospital	”	0724 – 2426228
7	Private Hospital	”	0724 – 2433398, 2417222, 2440120
8	Government Hospital	AKOT	07258 – 222570
9	Private Hospital	”	07258 – 222115, 222081, 222578
10	Government Hospital	ABX	02469 – 234003
11	Private Hospital	”	02469 – 223078, 222243
12	Government Hospital	AMW	07252 – 232001

13	Private Hospital	”	07252 – 232056, 232200, 232371
14	Government Hospital	AWB	0240 – 2334412 to 17
15	Private Hospital	”	0240 – 2321239, 2341894, 2335418
16	Government Hospital	BDU	02482 – 232182
17	Private Hospital	”	02482 – 261008, 261114
18	Government Hospital	BSQ	07255 – 242047
19	Private Hospital	”	07255 – 242038, 24244
20	Government Hospital	BMF	02454 – 220284
21	Private Hospital	”	02454 – 224199, 224202
22	Government Hospital	CTH	0240 – 2334412 to 17
23	Private Hospital	”	0240 – 2485332, 2485907, 2331994
24	Government Hospital	CRU	02452 – 255902
25	Private Hospital	”	02452 – 258219, 258277
26	Government Hospital	DLB	0240 – 2334412 to 17
27	Private Hospital	”	0240 – 227576, 261589
28	Government Hospital	GUX	0733 – 2225990
29	Private Hospital	”	0733 – 2286444, 2286522
30	Government Hospital	NED	02462 – 234003
31	Railway Hospital	”	02462 – 243120
32	Private Hospital	”	02462 – 222212, 220003, 233827
33	Government Hospital	J	02482 – 224942
34	Private Hospital	”	02482 – 230149, 234355
35	Railway Hospital	”	02482 – 223865
36	Government Hospital	KNRG	02456 – 220253
37	Private Hospital	”	02456 – 266113, 266099, 266012
38	Government Hospital	KMV	0240 – 2334412
39	Private Hospital	”	0240 – 2623488, 2623266
40	Government Hospital	KXX	07252 – 232001
41	Private Hospital	”	07252 – 232056, 232200, 232371
42	Government Hospital	KNW	0733 – 2223238
43	Private Hospital	”	0733 – 2227787, 2223133, 2223251
44	Railway Hospital	”	0733 – 2221122
45	Government Hospital	KNVT	02462 – 234003
46	Private Hospital	”	02462 – 223078, 222243
47	Government Hospital	KODI	02482 – 224942
48	Private Hospital	”	02482 – 2233149
49	Government Hospital	KSAE	08732 – 232200, 226461
50	Private Hospital	”	08732 – 231325, 233547, 227057
51	Government Hospital	LSR	02433 – 221259
52	Government Hospital	LBG	02462 – 270035, 270038
53	Private Hospital	”	02462 – 270096, 234003
54	Government Hospital	MVO	02451 – 240606
55	Private Hospital	”	02451 – 240417,240422, 240358
56	Government Hospital	MQL	02452 – 223584
57	Private Hospital	”	02452 – 223270, 224200, 225026
58	Government Hospital	MRDD	0733 – 2225990
59	Private Hospital	”	0733 – 2223133
60	Government Hospital	MUE	02462 – 275535
61	Private Hospital	”	02462 – 275457, 275462, 275561
62	Government Hospital	MGC	02462 – 222212, 220003
63	Private Hospital	”	02462 – 277227, 277389, 235174

64	Government Hospital	NSL	02559 – 261240, 265016
65	Private Hospital	”	02559 – 261249, 268382
66	Government Hospital	NDPR	02455 - 220202
67	Government Hospital	NVLN	02456 – 220253
68	Private Hospital	”	02456 – 224757, 220359
69	Government Hospital	PBN	02452 – 223458
70	Private Hospital	”	02452 – 222830, 333036, 330167
71	Government Hospital	PSD	02436 – 222238
72	Private Hospital	”	02436 – 283560
73	Government Hospital	POZ	02433 – 221259, 221414
74	Private Hospital	”	02433 – 241410, 241641
75	Government Hospital	PTU	02484 – 221293
76	Private Hospital	”	02484 – 221095, 221010
77	Government Hospital	PKNS	02452 – 223548
78	Private Hospital	”	02452 – 223270, 221635, 225026
79	Government Hospital	PAU	02452 – 255259, 254589
80	Private Hospital	”	02452 – 255104, 254589, 220357, 220037
81	Railway Hospital	”	02452 - 254589
82	Government Hospital	RNE	02482 – 271351
83	Private Hospital	”	02482 – 271215, 232400, 231111
84	Government Hospital	SVD	02482 – 224942
85	Private Hospital	”	02482 – 230149, 239001
86	Government Hospital	SCO	02484 – 221283
87	Government Hospital	SELU	02451 – 222542
88	Private Hospital	”	02451 – 222844, 222467
89	Government Hospital	UPR	02484 – 221293
90	Government Hospital	WHM	07252 – 232001
91	Private Hospital	”	07252 – 232056, 232371, 232200, 232256

****

ANNEXURE-I

NAME AND ADDRESSES OF THE MEMBERS/ALTERNATIVE MEMBERS FROM THE MINISTRY OF RAILWAYS IN NCMC

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses		Remarks
			Office & Rly. no	Residence & Mobile No	Office	Residence	
1	Chairman and & Railway board	All Indian Railwaymen Strike	23384010 Rly. 44700 Fax 23381453	7701801000	236, Rail Bhawan New Delhi	D-2/203, Kakanagar, New Delhi	**Member**
	Member Traction & Rolling stock Railway Board	All Indian Railwaymen Strike	23382427 Rly. 44708 Fax 23385113	Rly. 44711 24121019 7217726000	217,Rail Bhawan, New Delhi	RB Banglow No.5 Hospital Road, Moti Bagh-1 New Delhi- 21	**Alternate Member**
2	Chairman and CEO Railway board	Terrorism/ Security related crisis	23384010 Rly 44770 Fax 23381453	7701801000	236, Rail Bhawan, New Delhi	D-2/203, Kakanagar, New Delhi	**Member**
	Member Operations & Business Development Railway Board	Terrorism/ Security related crisis	23382776 Rly. 44712 Fax 23388237	Rly. 44709 24675513 7217725000	228, Rail Bhawan New Delhi	RB Banglow No.7 Hospital Road, Moti Bagh, New Delhi- 21	**Alternate Member**
3	Member Traction & Rolling stock Railway Board	All Indian Railwaymen Strike	23381477 Rly. 44708 Fax 23385113	Rly. 44711 24121019 7217726000	217, Rail Bhawan New Delhi	RB Banglow No.5 Hospital Road, Moti Bagh-1 New Delhi-21	**Member**
	Member Operations & Business Development Railway Board	Terrorism/ Security related crisis	23382776 Rly. 44712 Fax 23385237	Rly. 44709 24675513 7217725000	228, Rail Bhawan, New Delhi	RB Banglow No.7 Hospital Road, Moti Bagh-1 New Delhi- 21	**Alternate Member**
4	Member Operations & Business Development Railway Board	Terrorism/ Security related crisis	23382776 Rly. 44712 Fax 23385237	Rly. 44709 24675513 7217725000	228, Rail Bhawan, New Delhi	RB Banglow No.7 Hospital Road, Moti Bagh-1 New Delhi- 21	**Member**
	Member Traction & Rolling stock Railway Board	All Indian Railwaymen Strike	23381477 Rly. 44708 Fax 23385113	Rly. 44711 24121019 7217726000	217, Rail Bhawan, New Delhi	RB Banglow No.5 Hospital Road, Moti Bagh-1 New Delhi-21	**Alternate Member**
5	Member Operations & Business Development Railway Board	Terrorism/ Security related crisis	23382776 Rly. 44712 Fax 23385237	Rly. 44709 24675513 7217725000	228, Rail Bhawan, New Delhi	RB Banglow No.7 Hospital Road, Moti Bagh-1 New Delhi- 21	**Member**
	Chairman & CEO Railway board	Crisis where IR have to help other ministries	23384010 Rly. 44700 Fax 23381453	7701801000	236, Rail Bhawan, New Delhi	D-2/203, Kakanagar, New Delhi	**Alternate Member**

ANNEXURE-II

IMPORTANT CONTACT NOS. FOR DEALING ON DISASTER MANAGEMENT

(a) **Ministry of Home Affairs Control room, Room No.-12, North Block**

Tele No.	**23093054, 23093563, 23092885, 23092923, 26701728**
Fax	**23093750, 23092398**

(b) **For Natural Disaster**

(i) Ministry of Home Affairs and Central Relief Commissioner

Tele No.	**23438096(O) 23438098(F) E-mail jsdm@nic.in**
Mobile	**9910391422**

(ii) Director, DS(DM-II) Ministry of Home Affairs(Nodal Officer)

Tele No.	**23438154(O) 23438154(F)**
Mobile	**9958200960**

(iii) DS(DM-III) Ministry of Home Affairs

Tele No.	**23438071(O) 23438071(F)**
Mobile	**8745986863**

(c) **For Manmade Disaster**

(i) Dir, IC(1) (Counter Terrorism and Counter Radicalisation(CTCR)-II, Room No.10-B-C, North Block, Ministry of Home Affairs) Nodal Officer)

Tele No.	**23092159(O)**
Mobile	**886058049**

(i) Counter Terrorism and Counter Radicalisation(CTCR)-II, Room No.171-A, North Block, Ministry of Home Affairs

Tele No.	**23092736 (O) 23092569(F)**
Mobile	**9839099965**

(d) **Ministry of Defence**

(e)

Director/Air/Ministry of Defence	**23011896 (O)** **9911104048**
Joint Sexretary/Air/Ministry of Defence	**23014222 (O)** **9810868862**
Control Room of Defence Ministry (INSP) **Department of Ops Lgs, INCP HQ IDS** **Ministry of Defence, Gate No. 11, South Block,** **New Delhi – 110011** **(INCP – Interim National Command Post)**	**8794744149** **230065467,** **23015285** **(fax)**

ANNEXURE-III

CMC COMMITTEE FOR THE CRISIS SITUATION ALL INDIA RAILWAYMEN STRIKE

Sl No	Name of the Member with designation	Name of the Ministry	Telephone Nos.		Address	Remarks
			Office	Residence	Office	
1	Addl. Member, staff	Ministry of Railways	23382674	23364317 8595954838	202,Rail Bhavan, New Delhi	Convener
2	Principal Executive Director (I.R.)	Ministry of Railways	47172(Rly) 23383086	55244(Rly) 859595267	402, Rail Bhavan, New Delhi	Alternate Convener
3	Addl.Member (Finance)	Ministry of Railways	23047011 47011(Rly)	24675204 8595954847	207, Rail Bhavan, New Delhi	Member
4	Director General,RPF	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan, New Delhi	Member
5	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	Member
6	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	Member
7	Addl. Member, (Traction)	Ministry of Railways	23381227 44645	7827936620	115, Rail Bhavan, New Delhi	Member
8	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	Member
9	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	Member
10	Addl.Member (Tele)-vacant					Member
11	AM (Signal)-vacant	Ministry of Railways	23382122 44600		119, Rail Bhavan New Delhi	Member
12	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	Member

ANNEXURE – IV

CENTRAL MANAGEMENT COMMITTEE FOR THE CRISIS SITUATION FOR MAJOR TRAIN ACCIDENTS

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses	Remarks
			Office	Residence	Office	
1	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	**Convenor**
2	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	**Alternate Convenor**
3	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	**Member**
4	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	**Member**
5	Addl. Member, (Traction)	Ministry of Railways	23381227 44645	7827936620	115, Rail Bhavan, New Delhi	**Member**
6	Addl.Member (Tele)-vacant					**Member**
7	Director General,RPF	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan, New Delhi	**Member**
8	PED/Safety	Ministry of Railways	23381344 43302	22100439 9910487448 9818798391 (Mobile)	301,Rail Bhavan, New Delhi	**Member**
9	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	**Member**

ANNEXURE-V

CENTRAL MANAGEMENT COMMITTEE FOR THE CRISIS SITUATION – TERRORISM/SECURITY RELATED CRISIS

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses	Remarks
			Office	Residence	Office	
1	Director General, Railway Protection Force	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan New Delhi	**Convenor**
2	ADG (Admn)	Ministry of Railways	23385140 44055	859595483	435, Rail Bhavan New Delhi	**Alternative convenor**
3	DG (RHS)	Ministry of Railways	47843130 43130	26873611 55571 8178247900	214, Rail Bhavan New Delhi	**Member**
4	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	**Member**
5	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	**Member**
6	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	**Member**
7	AM (Signal)-vacant	Ministry of Railways	23382122 44600		119, Rail Bhavan New Delhi	**Member**
8	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	**Member**
9	AM (Tele)	Ministry of Railways				**Member**
10	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	**Member**

ANNEXURE-VI

CENTRAL MANAGEMENT COMMITTEE FOR THE CYBER CRISIS SITUATION-

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses	Remarks
			Office	Residence	Office	
1	Addl Member (M&BD)	Ministry of Railways,	23384725 47845394 43610 45394	8595526715	476-E, Rail Bhavan, New Delhi	Convenor
2	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	Alternate convenor
3	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	Member
4	Addl. Member, (Traction)	Ministry of Railways	23381227 44645	7827936620	115, Rail Bhavan, New Delhi	Member
5	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	Member
6	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	Member
7	AM (Tele)	Ministry of Railways				Member
8	Director General, Railway Protection Force	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan New Delhi	Member
9	PED/Safety	Ministry of Railways	23381344 43302	22100439 9910487448 9818798391 (Mobile)	301,Rail Bhavan, New Delhi	Member
10	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	Member

ANNEXURE-VII

CENTRAL MANAGEMENT COMMITTEE FOR THE CRISIS SITUATION -

NATURAL DISASTERS

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses	Remarks
			Office	Residence	Office	
1	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	**Convenor**
2	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	**Alternate convenor**
3	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	**Member**
4	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	**Member**
5	Addl. Member, (Traction)	Ministry of Railways	23381227 44645	7827936620	115, Rail Bhavan, New Delhi	**Member**
6	AM (Tele)	Ministry of Railways				**Member**
7	AM (Signal)	Ministry of Railways				**Member**
8	Director General, Railway Protection Force	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan New Delhi	**Member**
9	DG (RHS)	Ministry of Railways	47843130 43130	26873611 55571 8178247900	214, Rail Bhavan New Delhi	**Member**
10	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	**Member**

ANNEXURE-VIII

CENTRAL MANAGEMENT COMMITTEE FOR THE CRISIS SITUATION WHERE RAILWAYS HAVE TO HELP AND ASSIST OTHER MINISTERS

Sl No	Name of the Member with designation	Name of the Crisis	Telephone Nos.		Addresses		Remarks
			Office	Residence	Office	Residence	
1	Addl Member (TT)	Ministry of Railways	23382427 43575(Rly)	24672247 9717600117	264, Rail Bhavan, New Delhi	**Convenor**	Addl Member (TT)
2	Addl. Member (Comml.)	Ministry of Railways	23047351 47351	9910487453 55251	473, Rail Bhavan New Delhi	**Alternate Convenor**	Addl. Member (Comml.)
3	Add. Member (Mechanical Engineering.)	Ministry of Railways	23047431 47431	53205 9810422383	120, Rail Bhavan, New Delhi	**Member**	Add. Member (Mechanical Engineering.)
4	Add. Member, (Civil Engineering.)	Ministry of Railways	23382607 44800	8595928074	125, Rail Bhavan, New Delhi	**Member**	Add. Member, (Civil Engineering.)
5	Addl. Member, (Traction)	Ministry of Railways	23381227 44645	7827936620	115, Rail Bhavan, New Delhi	**Member**	Addl. Member, (Traction)
6	Addl.Member (Tele)-vacant					**Member**	Addl.Member (Tele)-vacant
7	Director General,RPF	Ministry of Railways	23382209 43480(Rly)	24104473 9821130622	440, Rail Bhavan, New Delhi	**Member**	Director General,RPF
8	PED/Safety	Ministry of Railways	23381344 43302	22100439 9910487448 9818798391 (Mobile)	301,Rail Bhavan, New Delhi	**Member**	PED/Safety
9	ADG/Public Relations	Ministry of Railways	23381332 43435		302, Rail Bhavan New Delhi	**Member**	ADG/Public Relations