कोंकण रेलवे कॉर्पोरेशन लिमिटेड

FOREWORD

It gives me immense pleasure and pride to present the updated Disaster Management Plan 2025 of Konkan Railway Corporation Limited (KRCL) – a critical document reflecting our unwavering commitment to safety, preparedness, and resilience across our entire operational network.

The Konkan Railway, with its unique geographical terrain and challenging engineering structures makes our responsibility towards disaster preparedness and mitigation even more vital. In recent years, the increasing frequency of extreme unpredictable weather events and man-made threats has highlighted the need for a comprehensive and dynamic disaster management strategy.

This updated plan integrates lessons learnt from past experiences, leverages modern technologies such as real-time monitoring systems and enhances coordination with National and State-level disaster response agencies. Special focus has also been given to Crowd Management, a situation, if not given due attention could turn into a serious disaster.

Disaster management is not the responsibility of one department alone, but a collective effort. I encourage every officer and staff member of Konkan Railway to familiarize themselves with the plan and actively involve themselves for its execution when required. Our preparedness today ensures the safety and continuity of safe operations tomorrow.

Best wishes.

Santosh Kumar Jha
Chairman & Managing Director

October – 2025
Belapur, Navi Mumbai.

कोंकण रेलवे कॉर्पोरेशन लिमिटेड

FOREWORD

It is with great responsibility and foresight that we introduce the Disaster Management Plan –2025 of Konkan Railway, a comprehensive framework designed to enhance our preparedness, response, and recovery capabilities in the face of natural and man-made emergencies

The Konkan Railway operates through one of the most geographically sensitive and environmentally dynamic corridors in the country. The route, though a testament to engineering excellence, faces recurring challenges such as heavy monsoon, high winds and storms and terrain-related vulnerabilities. Recognizing these unique challenges, the Disaster Management Plan has been developed to strengthen operational capabilities and ensure uninterrupted services.

This Plan incorporates key updates based on recent risk assessments and improved coordination mechanisms. It outlines clear roles and responsibilities for field and control office staff, emergency response units, and coordination with local administration, NDRF, and Indian Railways authorities. Additionally, emphasis has been laid to updated medical infrastructure along the route. The plan also aims to minimize disruptions, protect lives and assets, and build a culture of safety at every level of the organization.

I urge all departments associated with train operations and frontline personnel to study this plan closely and integrate it into daily working protocol. Our collective effort is to ensure the route continues to be a safe and trusted transportation corridor for all.

Best wishes.

Sunil Gupta
Director (Operations & Commercial)

October – 2025
Belapur, Navi Mumbai.

कोंकण रेलवे कॉर्पोरेशन लिमिटेड

Introductory Note

Safety has always been the cornerstone of our operational philosophy at Konkan Railway Corporation Limited (KRCL). As we continue to navigate complex terrains and challenging climatic conditions, the need for a robust and responsive disaster management system becomes ever more essential.

It is with this vision that we present the Disaster Management Plan – 2025, a comprehensive and updated roadmap that aims to further enhance our preparedness, mitigate risks, and ensure quick and coordinated response in the event of any emergency.

This plan has been developed with a safety-first approach, aligning with the latest guidelines of National Disaster Management Authority (NDMA). It integrates modern tools of using INSAT images for real-time weather monitoring, early warning systems by use of third-party applications and mapping by Lat-Lon of all stations and important assets on online maps for precise locations. Other Key areas of focus include of this plan includes Strengthening field-level response capacity, clearly defined roles and responsibilities for all departments, Enhanced coordination with local authorities and disaster response forces.

As the Chief Safety Officer, I strongly believe that preparedness is our most effective defense. This plan is not just a document - it is a living, evolving framework that must be understood, adopted and executed by every employee of KRCL.

Let us all reaffirm our commitment to safety and operational excellence.

N.M. Telang
Chief Safety Officer

INDEX

कोंकण रेलवे कॉर्पोरेशन लिमिटेड

PART – A

DISASTER MANAGEMENT PLAN

CHAPTER NO. 1
KRCL PROFILE
"A Little care makes mishaps rare"

Introduction:

Konkan Railway Corporation Limited is a Public Sector Undertaking under the aegis of Ministry of Railways. A 739 Km Railway Route passes through the mountain ranges along the west coast of the country. There are numerous tunnels, bridges, deep cuttings and high-end embankments along the route which makes it vulnerable specially during the monsoon as the region receives about 4000 plus annual rain fall.

The engineering features in brief are tabulated as under:

Description	Unit	Maharashtra	Goa	Karnataka	Total
		RN Region	KARWAR Region		
Gauge	1676 mm BG (Electrified) / Ruling Gradient: 1 in 150				
Route length	KM	738.94 (S/L- 681.514, D/L- 57.426)			
Route KM	KM	381.18	106.00	251.76	738.94
Track KM	KM	525.79	168.29	309.01	1003.09
Stations	Nos	36	9	23	68
Halt Stations	Nos	01	01	02	04
Major Bridges	Nos	104	36	50	190
Tunnels	Nos	68	10	13	91
Cutting	Nos	352	65	146	563
LC Gates	Nos	29	15	43	87
ROB/RUB	Nos	134	44	140	318

The Corporation like; Indian Railways operates freight and passenger trains along its routes connecting various destination across the country. Few prestigious trains like Madgaon Rajdhani, Thiruvananthpuram Rajdhani, Goa – Mumbai Vande Bharat, Mangalore Goa Vande Bharat are run on this route. The Corporation follows all the rules and manuals as applicable for train applications on Indian Railways. Similarly, the Corporation also follows the Disaster Management Plan as applicable and adopted by Indian Railways. The brief of this Plan is detailed as under:

The Government of India vide gazette notification dated 26 December 2005 defined "Disaster" as a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade 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 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.

Based on the definition of the ‘Disaster’ in the Disaster Management Act 2005, Ministry of Railways adopted the following definition of ‘Railway Disaster’ in the Disaster Management Plan of Indian Railways 2009 and 2014.

“Railway Disaster is a serious train accident or an untoward event of grave nature, either on railway premises or arising out of railway activity, 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 etc, necessitating large scale help from other Government/Non-government and Private Organizations.” Different types of disasters as described by Indian Railway Disaster Management Plan 2009 are as follows: -

- Natural disaster- Earthquake, Floods, Cyclones, Landslides, Tsunami;
- Train accident-related disaster- Collision, Train Marooned, Derailment, Tunnel Collapse, Fire Explosion in train etc. and
- Man-made disaster - Act of Terrorism and Sabotage

Disasters can cause injuries, fatalities and widespread infrastructure and property destruction. The associated economic and environmental costs can be devastating but it can be contained if the management systems in place to plan for, respond to or recover from them fail.

Organization Structure

At Railway Board Level:

- Implementation of the Disaster Management Plan is the collective responsibility of various Directorates of Railway Board such as Civil Engineering, Works, Finance, Signalling, Electrical and Security etc and Safety department of the Railway Board being the nodal department.
- The Disaster Management Plans (DMP) of Indian Railways (IR) is prepared by the Safety Directorate at Railway Board level.
- Railway Board has also nominated General Managers, Additional General Managers or Chief Safety Officers (when General Manager/Additional General Manager is not available) for declaring an untoward incident as Railway Disaster.

At Zonal and Divisional Railway Level:

- At the Zonal level, there is Safety department headed by Chief Safety Officer and assisted by Senior Divisional Safety Officer posted at respective Divisions of the Zonal Railways.
- The Disaster Management Plan of Zonal Railway is prepared by the Safety Department of the concerned railway.
- In respect of hospitals and security arrangements, Disaster Management Plan is prepared and coordinated by the Medical and Security department respectively.
- The management of floods, cyclones, earthquakes, landslides etc. is coordinated by the Civil Engineering Department.
- Procurement of specialized equipment and rescue centric training of personnel is coordinated by the Mechanical Department at the Zonal Headquarters and Divisional level.

CHAPTER NO. 2
DISASTER MANAGEMENT
"Prepare and Prevent, Don't Repair & Repent"

Overview

Disaster Management is a multiphase approach by a group of professionals or individuals 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 socioeconomic and technical issues. The technique, 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.

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

"Disaster Management Plan" outlines broadly the various activities by different departments to cope-up with the situation. All officers and staff must familiarize themselves with the guidelines included in the Disaster Management Plan of Konkan Railway which will help the Railway system to respond effectively in case of any disaster. Disaster management plan of Konkan Railway can be referred for detailed guidelines to provide relief / rescue and mitigation on the occurrence of a disaster.

b) National Policy on Disaster Management

The objectives of the National Policy on Disaster Management are:

1. Promoting a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education.
2. Encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability.
3. Mainstreaming disaster management into the developmental planning process.
4. Establishing institutional and techno legal frameworks to create an enabling regulatory environment and a compliance regime.
5. Ensuring efficient mechanism for identification, assessment and monitoring of

disaster risks.

6. Developing contemporary forecasting and early warning systems backed by responsive and fail-safe communication with information technology support.
7. Ensuring efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society.
8. Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.
9. Promoting a productive and proactive partnership with the media for disaster management.

c) Areas of focus on Disaster Management

The main areas of focus on disaster management are:

1. Faster Response
2. Better facilities and equipment
3. Expanding resources to meet requirements in major accidents
4. Better customer focus
5. Training and Preparedness
6. Art management to undergo major changes covering rolling stock management, status of equipment, monitoring of utilization of assets and availability and consumption of stores etc.

d) Objective of Disaster Management

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

1. Prevention of danger or threat of any disaster.
2. Mitigation or reduction of risk of any disaster or its severity or consequences.
3. Capacity building including research and knowledge management.
4. Preparedness to deal with any disaster.
5. Prompt response to any threatening disaster situation or disaster.
6. Assessing the severity or magnitude of effects of any disaster.
7. Evacuation, rescue and relief.
8. Rehabilitation and reconstruction.

*****

CHAPTER NO. 3
DISASTER MANAGEMENT

"Safety is a best tool in a Disaster"

I. Introduction

The word disaster is derived from two Latin words 'Dis' & Aster. "Dis" means 'Bad' and 'Aster' means 'Star'. In fact, BAD STAR would probably cause DISASTER. This is based on the assumption that 'Disasters' are caused by forces beyond human control and there are less chances of preventing them. After a passage of time, the meaning of 'Disaster' changed. It was understood that it is not beyond the control of human being and it can be managed. Thus, the "Theory of Fatalism" changed to "Management of Disasters".

This can be achieved when there is an advance planning, preventive measures & preparedness to reduce the impact of 'Disaster' on men & material. This can be achieved with collective efforts of Indian Railways, Central and State Government agencies, supported by local people and NGOs, to meet with any kind of real Disaster.

II. Definition of 'Disaster'

Normally any incident which disrupts normal and smooth activity, movement of the life and machine is termed as "Disaster" in general. 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 of the society.

As per Disaster Management Act-2005, Disaster is defined as "A catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade 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".

III. Types of Disasters and Mitigation

Disaster in the Railway context was traditionally understood as serious train accident, caused by human / equipment failure, which may affect normal movement of train services with loss of human life or property or both. This is now extended to include natural and other manmade disasters. Disasters are broadly classified as:

1. **Natural Disaster**:

Natural calamities may also cause serious disruption to traffic with loss of life / property. Some of the natural calamities are Earthquakes, Floods, Cyclones, Land Slides, Tsunami, Tornadoes, Pandemic, etc. Unlike man-made disasters, natural hazards. However, with mitigation measures along with proper planning of developmental work in the risk prone area, these hazards can be prevented from turning into disasters.

Mitigation:

- Proper liaison to be maintained with the meteorological dept of the Region / HQ by the control,
- Use of INSAT images or third-party Apps on mobile related to weather updates
- Proper maintenance of Anemometer where provided,
- Regular weather forecast to be recorded by Central Control & repeated to concerned SMs and concerned officials.

I. Earthquake

i. When first tremors are sensed during an Earthquake, all personnel should immediately come out of buildings and assemble at safe places
ii. Train movement should be regulated.
iii. Emergency shutdown should be declared.
iv. Emergency response plan to be activated.
v. After normalcy is restored, personnel should inspect all facilities for damage assessment, clean up, restoration and recovery.

II. Landslide:

i. Whenever landslide is expected / Experienced due to heavy down pour, all train services should be regulated and monitored at higher level.
ii. Rescue team to be rushed for review or restoration work.

III. Floods:

Based on weather forecast warnings regarding impending flood condition, following steps to be taken

i. Watchman to be provided at vulnerable locations like cuttings, bridges and suspected flooding locations to inform flow of water.
ii. Shifting all personnel and movable equipment around the bank.
iii. If time permits sandbag dykes can be constructed for safe passage of trains.
iv. Regulate train service till flood recedes.
v. Evacuate people on train/ at station and move them to a safer place.
vi. Contact Fire brigade, Navy, Army, Air force, NDRF, Local boat men and arrange divers and boats.

vii. Intimate State Government authorities for shifting stranded passengers to temporary shelters.
viii. Seek assistance from voluntary organization and arrange drinking water, food, medicines, etc.
ix. RPF & GRP in coordination with local police shall arrange protection.
x. Keep communication with Regional control office.
xi. When people are marooned by floods arrange air dropping of food packets, cloths, etc. with the assistance of Civil Administration contact local Doctors and provide medical care to the affected.

IV. Cyclone / storm

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

i. Stop train clear off cutting, bridges and embankments.
ii. Train Manager LP/ALP and other Railway staff on train shall open all doors and windows of all coaches.
iii. Station Master shall not start trains when the wind velocity exceeds the permitted level i.e., 72 Kmph or 41 Kmtrs
iv. Make announcement frequently to warn the public about the storm / cyclone.

2. Man-made Disaster:

i. Acts of Terrorism and Sabotage, (loss of life and damage to property.)
ii. Setting fire to a Train, Railway installations etc.,
iii. Bomb blast at Railway Station/Train,
iv. Chemical (Terrorism) Disaster,
v. Biological and Nuclear Disaster,
vi. Tampering with Railway fittings to cause a serious accident.
vii. Act of war by enemy

Mitigation:

Sabotage causing deliberate loss of life and / or damage to property. All due care must be taken including drills of Civil Defence, Black outs. If any railway staff notices the points mentioned below, he shall promptly report the event to Station Master or Station Master of the nearest station for further necessary action.

i. There is suspicious activity in the railway premises, train or on the track.
ii. Whenever there is an unclaimed luggage in railway premises.
iii. Setting fire to train / Railway installations and railway property.
iv. Terrorist acts like bomb blasts, Hijacking, disrupting traffic by any mischief.
v. Tampering with railway fittings to cause accidents.

*****

CHAPTER NO. 4
TRAIN ACCIDENT-RELATED DISASTER
"Plan ahead because Disaster doesn't warn"

I. Train Accidents

Train Accident related Disaster (Natural and man-made) may be caused by human / equipment failure, which may affect normal movement of train services with loss of life or property or both and also called as Consequential Train Accidents:

1. Collisions (Mass casualties),
2. Train marooned (flash floods),
3. Derailments at a bridge over a river and coaches falling down;
4. Level crossing accidents at Manned Level Crossings. (No unmanned LC on KR)
5. Train washed away in cyclone,
6. Derailment of a train carrying explosives or highly inflammable material,
7. Accidents inside the tunnel and tunnel collapse on a train,
8. Fire or explosion in trains.

Mitigation:

1. Proper maintenance of rolling stock, track, signaling gear, OHE.
2. Rigid observance of rules for train passing,
3. Remain vigilant while on duty on foot plate, at station, in brake van, on Permanent Way OHE inspections,
4. Up keep of fire extinguishers, keeping ART / SPARM cum MFDTVs and Tool Van good condition.
5. Mobility of infrastructure to be checked by conducting periodical mock drills.

II. Railway Disaster

The concept of a Disaster was not adequately defined on Indian Railways till 2005. Only cases of serious train accidents were considered as disaster. The definition of Disaster Management as given by the Government of India was legislated for the first time in the Disaster Management Act, 2005. The broad principles of disaster for any department of the government changed to the concept of any incident which could not be handled with alone by that department i.e., if it was beyond the coping capacity of a particular department, the incident could be termed as a disaster. With this came the need for various departments of Government of India as well as State Governments to pool in their resources jointly in order to provide relief / rescue and mitigation in the event of a disaster.

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 Disaster

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

Despite the earnest efforts taken to manage every disaster efficiently, in some train accidents involving heavy casualties, the relief and rescue operations could not be resolved satisfactorily. Accidents involving heavy casualties and in difficult terrain 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.

Disaster Management has been described in this Act as a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for-

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

III. Authority to declare a Disaster on Railways (Railway Board's Letter No. 2003/ Safety/ (DM)/6/2 Pt. Dated 06.01.2009):

Railway Board has authorized GMs, AGMs or CSOs (in the absence of GM / AGM) 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 analyzed 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 data bank on outside agencies resources etc.

IV. Declaration of Railway Accident as a Disaster:

Depending upon the seriousness and gravity of a mishap, the administration would take a conscious decision whether the situation is to be classified as a disaster or not. CSO / Dy. CSO and in his absence COM is the authorized / nodal officer to declare an accident as a disaster in consultation with Directors. Such declaration will be issued to all concerned. If the accident is declared as a disaster, all instructions as contained in the Disaster Management Plan would automatically come into force and officers and staff of all departments would take action as laid down in Disaster Management Plan of Konkan Railway. All officers and supervisors concerned should be fully conversant with various duties listed therein and carry them out without fail on war footing.

Rescue and Restoration were primary objectives of Disaster Management Plan prior to Disaster Management Act 2005. By the introduction of Disaster Management Act 2005, the following areas are brought under the purview of Disaster Management Plan.

1. Prevention, Preparedness & Capacity Building. Preparation of data bank.
2. Streamlining the Logistics of Railways.
3. Seeking assistance from State Government and involvement of Local Civilian Authorities.
4. Effective Trauma Care.
5. Proper Trigger Mechanism to ensure adequate medical care within “Golden Hour.”
6. Making use of Non-Railway Resources.
7. Maintenance of ART/ SPARM, MTV & Tool Van to have failure proof service.
8. Defining responsibilities of various staff / departments.
9. In addition, Disaster Management Plan should also be a golden opportunity for developmental process, in which, quality and standard of construction process shall be based upon standard engineering procedures. With a view to buildup appropriate capability to manage disaster at regional & zonal levels, clear instructions, defining the role of various departments is required. The Disaster Management Plan issued by this Railway covers such instructions to organize an efficient Rescue, Relief & Restoration operation and lay down the basic framework for immediate action by every Railway Servant.

*****

Chapter No. 5
DISASTER MANAGEMENT ACT 2005
"Alert Today Safe Tomorrow"

I. Disaster Management

It is a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary for expedient management

1. Prevention of danger or threat of any disaster.
2. Mitigation or reduction of risk of any disaster or its severity or consequences.
3. Capacity building.
4. Preparedness to deal with any disaster.
5. Prompt response to any threatening disaster situation.
6. Assessing the severity or magnitude of effects of any disaster.
7. Evacuation, rescue and relief.
8. Rehabilitation and reconstruction.

2 National Disaster Management Authority (NDMA).

Under section 6(1) of the Disaster Management Act 2005, NDMA is responsible for laying down the policies, plans & guide-lines for Disaster Management for ensuing timely & effective response to disasters in the country. It shall be the responsibility of every Ministry or Department of the Government of India to:

1. Take measures necessary for prevention of disasters, mitigation, preparedness and capacity building in accordance with the guidelines laid down by the National Authority.
2. Integrate into its development plans and projects, the measures for prevention or mitigation of disasters in accordance with the guidelines laid down by the National Authority.
3. Every ministry or department of the government of India shall take the measures for prevention and mitigation of disasters in accordance with the National Plan.
4. NDMA shall be comprised of the chairperson and such number of other members, not exceeding nine, as may be prescribed by the central government. The Prime Minister of India shall be the Chairperson Ex officio.
5. NDMA shall have powers to lay down policies, guidelines, planning and co-ordination and evaluation & monitoring for Disaster Management. There shall be a National Plan drawn up for disaster management in the whole country.
6. Similar state DMAs with Chief Minister as Chairperson and eight (08) other members shall be formed having power to lay down policies, guide lines and planning & monitoring at state level. There shall be a state executive committee which Chief Secretary as Chairperson and four other secretaries. A state DM plan shall be made.

7. At District level, a district DM authority with Collector/ DC/ DM as chairperson and SP, DMO and other two Dist. level officers as member shall be formed with similar function and a District Disaster Management Plan shall be drawn.
8. Central Govt will take measures for co-ordination among various DMA, with various ministries, Naval, Military and Air Forces for capacity building, preparedness and effective response. Assistance to State Govt. shall be provided. Every ministry shall take measures as per guidelines laid down in national plan and prepare their own Disaster Management Plan.
9. Similar action will be taken by the State Govt. and local authorities at state and district levels respectively.
10. A National Institute of Disaster Management shall be formed for planning, training and research in the area of disaster management.
11. A National Disaster Response Force will be constituted for specialist response to disaster. A National Executive Committee shall be constituted to assist the NDMA in the performance of its functions.

3 **Section** – 35 of Disaster Management Act.

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

1. Co-ordination of actions of the ministries or departments of the government of India, state governments, national authority, state authorities, governmental and non-governmental organizations in relation to disaster management.
2. 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;
3. Ensure appropriate allocation of funds for prevention of disaster, mitigation, capacity building and preparedness by the ministries or departments of the government of India.
4. 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;
5. Co-operation and assistance to the state governments, as required by them;
6. 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 **Section – 36** of Disaster Management Act.

It shall be the responsibility of every ministry or department of the government of India to:

1. Take measures necessary for prevention of disasters, mitigation, preparedness and capacity building in accordance with the guidelines laid down by the National Authority.

2. 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;
3. 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;
4. 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;
5. Allocate funds for measures for prevention of disaster, mitigation, capacity building and preparedness;
6. 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.

7. Make available its resources to the National Executive Committee or a State Executive Committee for the purposes of responding promptly and effectively to any threatening disaster situation or disaster, including measures for –

   i. Providing emergency communication in a vulnerable or affected area;
   ii. Transporting personnel and relief goods to and from the affected area;
   iii. Providing evacuation, rescue, temporary shelter or other immediate relief;
   iv. Setting up temporary bridges, jetties and landing places;
   v. Providing drinking water, essential provisions, healthcare and services in an affected area;
   vi. Take such other actions as it may consider necessary for Disaster Management.

5 Section – 37 of Disaster Management Act

1. Every ministry or department of the government of India shall
   i. Prepare a Disaster Management Plan specifying the following particulars namely;
      a) The measures to be taken by it for prevention and mitigation of disasters in accordance with the National Plan;
      b) 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.
      c) Its role and responsibilities in relation to preparedness and capacity building to deal with any threatening disaster situation or disaster;
      d) Its role and responsibilities in regard to promptly and effectively responding to any threatening disaster situation or disaster;

e) The present status of its preparedness to perform the role and responsibilities specifying in sub-clauses (iii) and (iv);
f) The measures required to be taken in order to enable it to perform its responsibilities specified in sub-clauses (iii) and (iv)

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

iii. 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;

i. Make, while preparing DM Plan under clause (a) of sub-section (1), provisions for financing the activities specified therein;
ii. Furnish a status report regarding the implementation of the plan referred to in clause of sub-section (1) to the National Authority, as and when required by it.

****

Chapter No. 6
DISASTER MANAGEMENT CELL
"Preparedness is Strength"

I. Objectives of Disaster Management Planning

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

II. Formation of Disaster Management Cell

Once a mishap is declared as Disaster, immediately a multi-disciplinary Disaster Management cell shall become operational at corporate office, Belapur. This cell shall consist of Medical, Safety, Operations, Commercial, Mechanical, Engineering, S&T, Electrical, Security, Stores, Personnel and Public Relations Dept.

III. Zonal Management Group (ZMG)

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

Director (Operations & Commercial) – Convenor
Chief Engineer – Member / Alternate Convenor
Chief Security Commissioner
Chief Personnel Officer
Chief Operations Manager
Chief Mechanical Engineer
Chief Electrical Engineer
Chief Signal & Telecommunication Engineer
Chief Safety Officer
Chief Commercial Manager
Chief Medical Officer
Chief Public Relation Officer

Note: The above designations are generic designations in a dept. There may be suffix of Principal before the designation as per eligibility of the incumbent.

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

IV. Regional Management Group (RMG)

Regional Management Group is similar to Zonal Management Group but at Regional Headquarter Level. Depending upon the type of disaster the Regional Railway Manager, if so required, shall constitute a Regional Management Group (RMG) comprising concerned Regional Officials. This group shall be in constant liaison with ZMG to take instructions wherever necessary and keep ZMG on update from time to be time. The RMG shall be responsible to coordinate with Local Administration and Disaster Management Groups. The Officer handling the media shall also be the part of the RMG.

V. Priorities during Disaster

i. Save life, alleviate sufferings and provide succour.
ii. Preservation of clues related to accident and security of passengers' luggage and Railway property.
iii. Restoration of through communication as early as possible.

VI. Functioning of Disaster Management Cell

On declaration of a Disaster, immediately Zonal Disaster Management Cell (ZDMC) will be formed and functional from control office at Corporate Office, Belapur. Chief Safety Officer/Deputy Chief Safety Officer or in his absence Chief Operations Manager shall co-ordinate the functioning of Disaster Management Cell. He shall report the accident to Railway Board / CRS and update the restoration details from time to time. He shall also ensure ordering of Relief Train for evacuation of involved passengers from the site of accident. The officers attending Disaster Management Cell shall obtain the full details of the accident from Control / Site of accident and shall monitor the movement of Brake down Train and Relief Train. Top most priority is to be given for rescue operation for transferring the injured passengers from site of accident to nearest Hospitals and for sending medical aids from Civil, Military, Private Medical Hospitals to the accident site. Immediately on receiving warning message of a severe natural calamity, Emergency Controls shall be opened at the Central Control and RRM office of the region, duly manning them round the clock by one officer in charge to co-ordinate with State agencies.

VII. Role of different departments in Disaster Management Cell: -

1. Medical Department

CMO or the Officer representing Medical Department shall obtain all details regarding causalities / injuries of passengers involved in accident and shall maintain liaison with

the Accident site, referral hospitals and dispensaries and shall consolidate the list of injured / causalities in minimum time so that the same can be sent to concerned Station / Region for display in Emergency Control and emergency information Booths.

i. CMO will review the stock position of life saving drugs & equipment's, essential medicines, disinfectants, first-aid materials and other utility items and move the stock to the regional hospitals/health units and also to crisis points.

ii. He shall also seek assistance from hospitals, Medical Collages - Institutions in the region for additional help, if so required. Para medicos & certified health volunteers in each section should be asked to be pro-active for rehabilitation and preservation of ill-fated casualties.

iii. Measures to prevent epidemics: Health and Civil Engineering departments will take measures for prevention of epidemics with facilities like potable water, sanitation and proper drainage and shall take steps to reinstate water bodies disinfected in the post disaster situation.

2. Operating Department

i. To avoid any mishaps or damage to passenger carrying trains and to avoid marooning off, COM or an officer acting on his behalf will look after necessary route diversions, cancellation and regulation of trains running through the affected area.

ii. In Coaching trains, regulating should be done as far as possible at convenient stations where adequate water supply, lighting, catering and medical /civic facilities are available.

iii. RRM concerned will assess for requirement of essential staff and their area of deployment and advice HQs and Central Control/ Belapur accordingly.

iv. Area Supervisor and Station Manager of the area which is likely to be affected will ensure storage of adequate water for consumption and sanitary purposes, functioning of locally available Generator Sets, Battery Lamps, Fuel, VHF sets, charging of stand by batteries and adequate First aid.

v. SM of the station affected will ensure that wagons, coaches/ loads at their station are/ chained and wedged to avoid rolling. Special instructions as per SWR shall be strictly followed and confirmed to central control.

3. Commercial Department

CCM or the officer representing Commercial Department shall ensure ordering of refreshments for the passengers of involved train, payment of ex-gratia to the injured / killed passengers, arranging for transshipment of goods and passengers' luggage. Hiring of private buses for transfer of passenger from site of accident to the nearest rail head. The commercial officer shall also ensure transmission of detailed information regarding injured/ casualties to originating/destination stations to Railway Board and HQ of the originating/destination Railways. He shall also ensure opening of Emergency Information Booths at important junction stations enroute within the Railways.

i. The Commercial department shall preserve the train chart and send copy to Central Control.
ii. CCM shall arrange to open inquiry offices at important stations to disseminate upto date information on rescue and relief.
iii. Commercial department shall ensure sufficient stock of refreshments & packaged drinking water at Station especially during monsoon season.
iv. Stranded passengers to be supplied with water, tea, snacks / food and transshipment at suitable places.

4. Mechanical Department

CME or the officer representing Mechanical Department shall assess the requirement of additional Medical Van / Brake Down Trains, Tool Vans and shall liaison with adjoining Railway/ Division for ordering the same. He shall also monitor the movement of Brake Down trains. He shall obtain the details of Rolling Stock involved in accident and their particulars of Rolling Stock ownership. He shall obtain the restoration details regarding derailment / toppling of wagons / coaches by each individual Brake Down Train.

i. CME or his nominated officer shall see that they have Accident Relief Trains (ART) and Self-Propelled ARM cum MFD Vans well equipped with Hot & Cold Cutters, Hydraulic Rescue devices & other cutting tools. They shall be ready for quick dispatch and erection of rehabilitation camp, emergency lighting & power arrangement. The BD staff should be conversant with trauma control techniques, First aid, and Current state of art relief and rescue methodologies.
ii. All the road vehicles under RRM's control, irrespective of the owning departments shall be utilized for transporting men, material and machines to expedite restoration under the direction of CME.

5. Engineering Department

CE or the officer representing Engineering department shall obtain the information regarding damage to track and shall ensure ordering of material train if required. The details of track structure and other relevant details such as USFD particulars, last inspection, profile of the track etc. shall be obtained within minimum time. He shall organize ordering of additional labour special as per requirement at the site.

i.CE or his nominated officer Shall order a train loaded with cinders, boulders, quarry dust, Empty cement bags filled with sand/ soil, to a station close to affected areas.
ii.Patrolling of the vulnerable & unsupported portions shall be intensified.
iii.Empty flat wagons (BRH/ BFK/ BRNs) will be placed at suitable sidings to enable quick loading of earth moving machineries
iv.He shall arrange and keep ready for movement RMV & Utility Vans fully equipped.

6. Signal and Telecommunication Department

CSTE or the Officer representing S & T Department shall ensure better communication to the site of accident. A line should be dedicated for the emergency transmission from site of accident / Regional control (if any) to Disaster Management Cell at HQ. He shall ensure installation of MTNL / BSNL / Public / Railway phone at the site of accident involving passenger carrying train. He shall obtain the information details of S & T gears involved, if any, in the accident. CSTE or his nominated officer will provide adequate facilities of wireless communications, satellite phones, Public Address System and fail-safe telephone lines in disaster prone areas for ensuring effective communication during disaster. He shall ensure setting of IP based camera at site and sufficient mobile chargers and charging sockets.

7. Safety Department

CSO or his nominated officer shall take following actions.

i. SOS to be sent to NDRF 5th Battalion CPRF- Talegaon / Pune for specific assistance based on feedback from Region in State of Maharashtra and Goa and 10th Battalion/Guntur, Andhra Pradesh for Karnataka State. If required “air lifting" of NDRF team to be arranged. Chief Manager (Admin) will make necessary arrangements for this.
ii. Liaison with NDMA for getting assistance. Advise concerned HODs to get assistance from Govt. organizations, NGOs & adjoining Rlys /divisions, on need basis.
iii. Inform to CRS, Railway Board Authorities.

8. Electrical department

CEE or his nominated officer should provide standby generators (with GREEN features to extent possible) with apt stock of fuel at strategic locations. They shall have a plan for emergency illumination, ventilation and powering of appliances.

He shall obtain the bio-data particulars of the crew involved in the accident. The Breathalyzer Test should be done on the Crew. Arrange for additional Crew for the accident site. The Official of electrical department shall obtain the details of extent of damage to electrical installation, AC & Non-AC coaches. In case of Fire in coaches, immediately collect / record evidence of passengers with full particulars. If some passengers are willing to give evidence later on, their names and addresses should also be recorded.
Where OHE is involved, arrange for adequate number of break-down staff / tower wagon to proceed to the site of the accident by the quickest available means. Ensure the OHE is made dead and OHE is slewed as required for ground / crane operations. Arrange and supervise restoration of OHE expeditiously.

9. Stores Department

COS or his nominated officer to be available in control room with his executives to make arrangement to supply urgent items required by Engg, Mech, S&T, Electrical depts. for early restoration of track.

10. Security Department

CSC or his nominated officer will nominate security personnel for
a) To accompany "relief material " trains / Heavy Road vehicles as ordered.
b) To help handling public inquiries.
c) At stations, where any train carrying passengers is regulated
d) At major restoration sites of disaster.
e) Co-ordinate with local Police for maintaining Law & Order
f) Safe guarding passenger luggage

11. Accounts Department

FA&CAO or his nominated officer shall ensure payment of ex-gratia to those affected by railway disaster in consultation with Commercial Dept.

12. Personnel Department

CPO or his nominated officer shall ensure issue of passes to the next of kin of victim to those affected by railway disaster.

13. Public Relations Department

CPRO shall communicate with the Media & social media to provide necessary information to avoid wrong publicity of the disaster.

14. General Department

CM/Admin shall inform State and District authorities, local administration, NGOs and coordinate with them. If required "air lifting" of NDRF team to be arranged. Chief Manager Dy. General Manager (Admin) will make necessary arrangements for this**.**

15. Information Technology

CMIT or the department **representative** shall ensure that Special Bulletins issued from time to time are immediately uploaded on the website – Home page.

*****

Chapter No. 7
PROTOCOL OF REPORTING AN ACCIDENT
"Efficiency and safety should go together"

When an information of an accident is received in control office either from Train Manager, Train crew, Station master or by any other reliable source, the protocol of further reporting of First Information of an accident will be as follows: -

Who will report	First Information to be reported to	Remarks
Dy.CHC	1) ATM/Control 2) COM / Dy.COM 3) D(O&C) 4) CMD	COM/Dy.COM & ATM/Control will ensure that Dy.CHC has taken correct action for ordering ART / Self-propelled ARMV & MTV
Controller (North Board)	1) CMO in case of passenger train accident suspecting casualty/ injury 2) CSO/Dy.CSO 3) RRMs	CSO/Dy.CSO will pass on this information to CRS and also to Railway Board, if considered necessary.
Controller (Middle Board)	1) CPRO 2) CM/Admin	On receipt of information about the accident while ordering breakdown train, He will simultaneously inform S & T Control & Engg. Control about the accident so that the respective officers from their department can separately be intimated by them.
Controller (South Board)	1) DF 2) FA & CAO	On receipt of information about the accident while ordering breakdown train, He will simultaneously inform Traction Power Control, Security, Personal and the Commercial Control about the accident so that the respective officers from their department can separately be intimated by them.
S & T Control	1) CSTE 2) Any other officer desired by CSTE	
Engg. Control	1) CE 2) D(W&W) 3) Any other officer desired by CE	
Traction Power Control	CEE and any other officer desired by CEE.	
Security Control	CSC	
Comml. Control	1) CCM 2) Dy. CCM	
Power controller	1) CME 2) Dy.CME	
IT Controller	1) CMIT	

Who will report	First Information to be reported to	Remarks
	2) Dy CMIT	
SM/RN/ (after ordering SPARM & MTV	**1.** Dy.CMO / SMO/MO RN& CHI (in case of passenger train accident / casualty/ injury) **2.** RTM/ATM/RN/RSO **3.** RRM/RN and other officers desired by RRM	SM will ensure sounding of siren so that all officers and staff come to know about the accident, who in turn will check-up with the SM about the accident.
SM/VEN (after ordering ART / Self-propelled ARM & MTV)	**1.** SMO/MO/VEN/MAO (In case of passenger train accident/ casualty/ injury) **2.** RTM/ATM/ MAO/RASO-KAWR **3.** RRM/KAWR **4.** ATM/SMR/SM/MAO/SM/KAWR for informing other Regional Officers.	

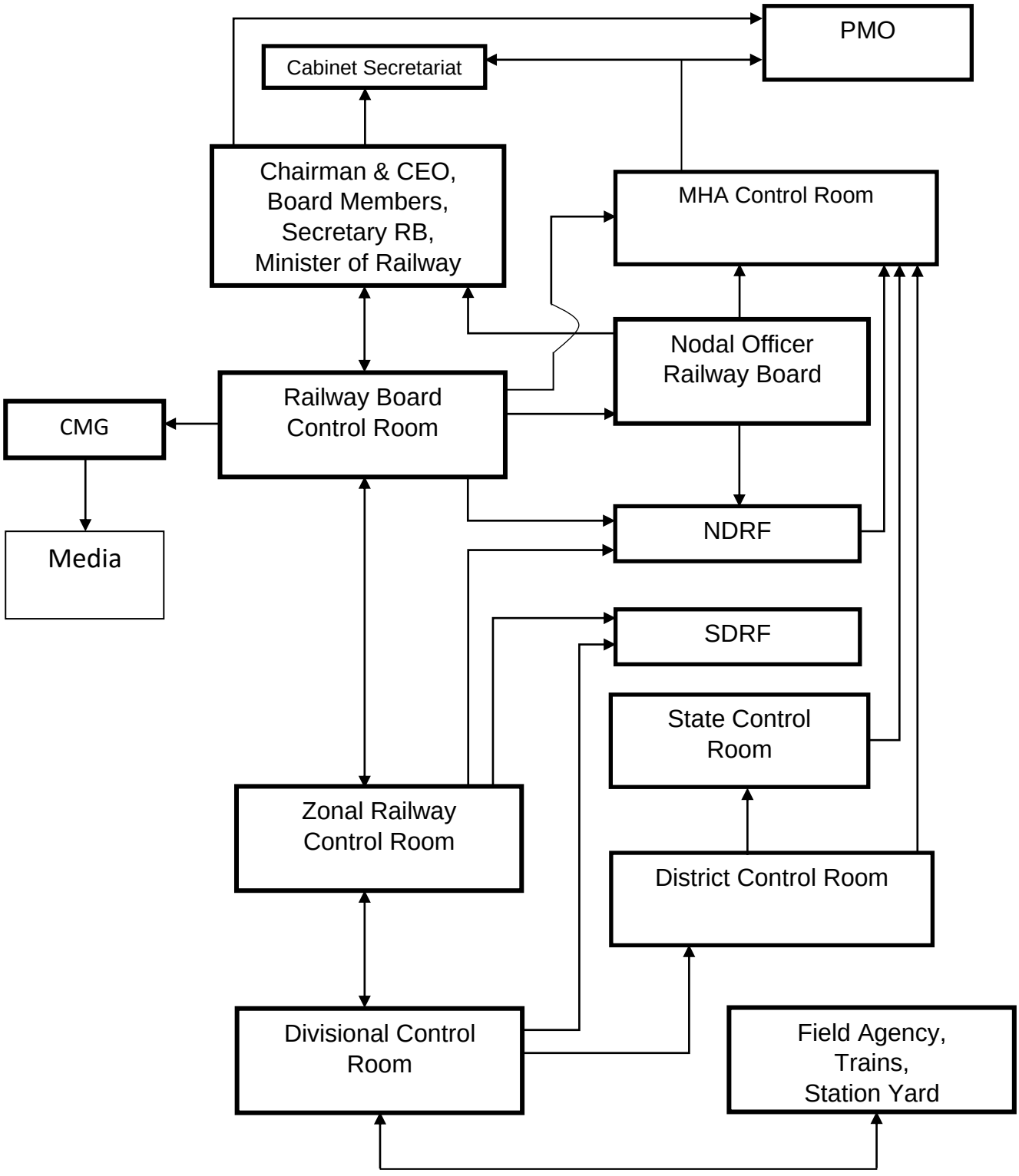
Note:

1 Available information is to be conveyed briefly while reporting first information regarding the accident (not more than one or two minutes) like train / trains involved, type of accident, kilometer of location, block section, No. of coaches / wagons / locomotive involved, whether any casualty reported, etc.

2 Dy. CHC will maintain LOG book keeping details of the time when the information was received and the time it was reported to particular officer. In case of major accident, either an off-duty Dy. CHC or Time Table Controller will be called immediately to maintain the log book. The staff entrusted with the job of keeping log book will perform this duty assiduously and sincerely.

3 ATM/Control will ensure that the above protocol for reporting of accident is being properly followed & subsequently take charge of the situation and coordinate accordingly.

FLOW CHART INFORMATION (ISSUED BY RAILWAY BOARD)



Chapter No. 8
POST DISASTER MANAGEMENT
"Carelessness costs lives"

I. Preparation

In order to face any disaster, proper planning and preparedness with necessary training and resources development is a must. Full-fledged responding mechanism is required to be ready for mobilization at shortest notice. Vital information of varied strengths of Railways & Non - Railway Organizations within reach shall be kept handy and response priorities of local and central action units are hence decided strategically. Core competency and capacity building are the pre requisites of disaster preparedness.

Immediate action to be taken once a disaster is declared. Take control of the situation, assess the damage & perils, requisitioning and mobilising of resources, immediate rescue and rehabilitation measures. All departments of Railway have to play their role as prescribed in expediting the restoration. To arrest the recurrence, the root cause of accident, contributing factors need to be explored and properly addressed.

II. Meeting of Disaster Management Monitoring Cells

On receipt of the message of a disaster, the monitoring cells at Central and Regional headquarters / site of accident level will come in action & assess the position to monitor the lines of action to be taken.

III. Assessment of Damage

Damage of assets shall be assessed by following means

1. Motor Trolley / RMV / Tower Wagon Survey by the nominated officers and key staff.
2. Reaching to site by road vehicles where possible.
3. Manual assessment by competent senior most official present at the site.

IV. Information to Control

After assessment of the damages, Central Control to be updated about:

1. Nature of damage / Magnitude of obstruction to track with location reference.
2. Optimum method / System for quick restoration.
3. Requisition of resources for restoration
4. Whether or not, a light engine or light vehicle or relief train can pass the section.
5. Expected time to clear the site of obstructions / repairs.

V. Movement of Relief / Rescue system

1. On receipt of first information from the affected site, all the relief trains on the section must be ordered and dispatched with full complement of staff and equipment's within stipulated time of departure.
2. Responsible railway officer should reach the site and make arrangements for stranded passengers on priority and to organize water, food, tea and snacks for them accompanied by medical team to attend casualties and injuries.
3. If situation warrants so, assistance of NDRF or Air Force authorities or private air operators shall be sought by RRM for air dropping of food packets, lifebuoys & kits for the passengers or air lifting of passengers to safer places.
4. Assistance of state authorities for boats, divers or fire brigade, if required

Chapter No. 9
ROLE ON RESTORATION
"Constant vigilant is the price of the safety"

Restoration of traffic at the earliest is the prime duty of each and every department. The role of each department for rescue and relief operation is detailed as given below:

I. Mechanical Department

Responsible for early clearance of the site of accident by the way of re-railing and moving the affected coaches / wagons from the site. If re-railing is not feasible and time consuming, the site can be cleared by keeping the affected coaches / wagons away from infringement line so that the track linking can be done for restoring the traffic.

II. Engineering Department

Responsible for quick restoration of obstructed train path. Co-ordination with civil authorities, contractors, private agencies, stores and traffic departments for effective movement of men, machinery & material to site. If required they should hire T&P from whatever sources. The materials like rails, sleepers, fittings, ballast, etc shall be brought near to the accident site so that as soon as the infringement of coaches / wagons is cleared, the track laying to be done.

III. S&T Department

Effective means of communication at strategic points shall be established for exchange of information. Railway phones, BSNL phone, wireless set, fax, video conference/surveillance, etc., are to be established immediately once an accident is declared as Disaster. Restoration works of signals and interlocking should be taken up systematically. The materials like signal gears, posts, cables, etc., shall be brought near to the accident site so that as soon as the infringement of coaches / wagons is cleared, the restoration of signalling/ interlocking system can be done in a systematic way.

IV. Traffic Department

Primary responsibility is to restore the train services. Sufficient number of trains passing staff shall be deployed at nominated stations for this purpose.

V. Electrical Department

Electrical Department shall provide temporary lighting arrangements through generator sets at strategic locations. They should co-ordinate with state electricity authorities for restoration of power supply sufficient No. of staff with requisite material

and T&P shall be deputed for the restoration work. Entire area of accident must be covered with lighting arrangement.

VI. Information Technology Department

Cyber Crisis Management Plan (CCMP), which comprises Business Continuity Plan (BCP) in the event of disasters. This is approved by Cert-in and will be followed in the event of a disaster of any kind. Additionally, a Disaster Recovery Site is also stationed at MAO which is at different seismic zone, from where all IT operations can take off, in the event of any physical or even Cyber crisis if need be.

Since in addition to managing the disaster, starting business operations is also a parallel activity, it is essential that we setup an alternate control center and start minimum operations. All personnel from various depts involved shall ensure setting up the alternate arrangement so as to fire the setup. The BCP also incorporates this arrangement.

VII. Stores Department

During restoration, the stores department shall play a pro-active role in making emergency purchases preferably through Standing Spot Purchase Committee (To be formed at SS, JAG and SAG levels empowering to make spot purchases at par tender committee) and supplying the same to user department at sites. For such purposes, a note countersigned/ signed by HODs in HQs will be treated as valid demand.

Note: For restoration of traffic, single tenders may be awarded to the competent and experienced contractors who have adequate capacity to mobilize machinery and materials with the prior approval of CMD for the procurement of materials and hiring of machinery.

*****

Chapter No. 10
COMPREHENSIVE SITE MANAGEMENT PLAN
"A danger foreseen is an accident prevented"

I. Duties of Train Managers of affected train

Immediately after occurrence of the accident, the Train Manager of the train shall:

1. Ensure securing of vehicle / rake by application of hand brakes etc.
2. Arrange protection of adjacent line(s) in case of double / multiple lines ascertaining if adjacent line is fouled and immediately use Red flasher lamp if train is seen approaching, then protect the train on same line as per prescribed rules.
3. Report the accident with brief details to SM / Control with available means of communication.
4. Assess the nature of accident, take action to save human lives, render First Aid.
5. Call for Doctor(s) if any on the train and seek their assistance as required at site.
6. Make quick survey of the site and assistance needed.
7. Establish communication with Central Control / Station Master of adjoining station and Tunnel Ventilation Control (wherever exists) through Emergency Telephone or other quickest means, advise them following information & obtain further order from Central Control. (Nature of accident, time, kilometerage, casualties, damage to rolling stock, track, S & T gears, OHE, Condition of adjacent lines i.e. whether fouled, whether speed restriction is necessary for passing of any train on the adjacent line and any other information to caution the LP etc, Number of wagons / coaches derailed / capsized, loaded or empty and their position from Loco / Brake van, Probable cause of accident if clearly visible, assistance required including medical, food, drinking water, transportation and any other information which he feels necessary, and advise Control whether any road is available nearby and site condition. i.e., Level Crossing, tunnel, bridge cutting etc.)
8. Take help from the Railway Staff (whether on duty/off duty or on leave.
9. Attend to injured, arrange their transportation as early as possible by Railway or road or other means.
10. Post an available employee to man the Field Telephone to ensure continuous flow of information to Central Control.
11. Preserve and safeguard all clues of possible cause of accident.
12. Render help to train conductors/ TTEs in attending and identification of the injured/ dead.
13. Arrange for protection of property of passengers and Railways at site by calling RPF etc. to prevent theft or otherwise.
14. In consultation with control and after preparing the joint observation report duly ascertaining the track is safe, the unaffected (Front/Rear) portion of the train can be sent to the adjacent station so that Medical van/Relief train can be received nearest to the accident site for early restoration/relief. Be careful while attaching / detaching any vehicle with engine to the affected train.
15. The Train Manager shall not leave the site of accident till such time he is permitted

by the Competent authority and before leaving the site, he should handover his preliminary statement to the concerned Railway Official.

II. Duties of LP / ALP of affected train

1. In case train stopped during run in between stations due to accident or any such reason, sound four short whistles and show a Red Flag by day and Red flasher Light by night, move up and down towards the Train Manager of the train until he acknowledges this signal.
2. Switch ON the flasher light of the loco.
3. Take such technical precautions as may be necessary in order to prevent the loco/ train rolling away.
4. Arrange to protect the adjacent line and then same line of affected train in accordance with the rules in force to avoid any mishap to the train coming in that direction.
5. Advise control and adjacent Station Master about the accident on field telephone connected with the nearest telephone socket.
6. Render all possible assistance to the Train Manager for rendering First Aid to injured and any other assistance required and for rescue of stranded passengers.
7. Preserve all clues of the accident for investigation.

i. In case of accident in Long Tunnel

a) After the train is brought to a halt, inform the Central Control and Ventilation Control (where exists) of the incident and other details, through emergency telephone and arrange ventilation in tunnel (wherever provided)

b) Provide illumination (where arrangement exists) by operating switches provided inside the tunnel or through ventilation control (where available).

c) If the position permits/found safe, consult Train Manager and after getting his permission draw the affected front portion of the train out of the tunnel carefully and secure properly.

d) Take help from TTE, Coach Attendant etc. and assist in evacuating passengers from affected front or the rear portion / coaches of the train and transshipping them into the unaffected coaches or outside the tunnel, carefully.

e) Secure the load of the train by pinning down the vehicles.

f) Take guidance from "Sign Indication Board" provided in the tunnel which shows direction of nearest Telephone Socket, Fire Extinguisher, Man refugee, nearest tunnel exit while working in tunnel and guide the passengers and staff accordingly to avoid any confusion & fear among them.

III. Duties of Controller / Dy. Controller

1. Collect and record the various information in the Accident Register maintained in the Control Office for the following items with logging of time for each information received like time of accident, location, single / double line, signaling system, block section / station yard, kilometer, gradient, in tunnel / bridge/ level crossing/ cutting/ embankment etc, train / (whether Mail / Express / Passenger / Goods / Mixed etc) and load of the train involved, adjacent line/ lines fouled or not, type of goods stock

involved, i.e. whether Tank Wagons, BCN, BOX, BOXN type etc. number of wagons derailed/ capsized and their position from loco / brake van, nature of accident (collision, derailment, averted collision or Level Crossing, fire, probable cause of accident (if clearly visible), Casualties / Injuries) grievous, simple, trivial etc, extent of damage to track / rolling stock / loco / signalling gear, OHE, probable time of restoration, progress in regards to the restoration work and other movements for operational requirements with timings, other assistance required, etc.

2. Immediately stop the movement of trains in the affected direction on double line and in both the directions on single line and follow the prescribed rules for any other train movement in the affected Block Section.
3. Check from site / station if adjacent line / lines fouled or otherwise.
4. Immediately order Self-Propelled ARM cum MTV whenever any casualty is reported.
5. In case of an accident involving a passenger carrying train or an accident involving a road vehicle at a level crossing, invariably order the Self-Propelled ARM cum MTV irrespective of the information received or otherwise about casualties, subsequently if it is not required same may be cancelled.
6. Order immediately the Accident Relief Train (ART) if required.
7. Record the timings of ordering of the ART and Self-Propelled ARM cum MTV and actual departure from the concerned station.
8. Ensure a clear path for rushing the Self-Propelled ARM cum MTV / ART etc.
9. Record the reasons for delayed departure of Self-Propelled ARMV cum MTV / ART if any.
10. If Tool van at Suratkal is required to be moved, assign a LOCO for the same.
11. Give information of accident and advise all concerned officers and senior sub-ordinates and regional officers to proceed to the site of accident immediately by quickest means.
12. Advise all concerned officers of corporate office giving full details of the accident.
13. Advise immediately Railway, civil, military and public hospitals and medical officers in the area and arrange for doctors, medical equipment and ambulances from nearby stations, as required may be requisitioned immediately.
14. Collect the name of the injured/dead passengers and Railway Staff with full particulars and arrange to relay the names of the injured/dead to the important stations and junction Stations on the section and concerned adjoining Railways.
15. In consultation with COM / Dy.COM as the site position warrants, arrange to regulate all passenger carrying trains which are nearer to the accident site at convenient stations, preferably where eating, drinking water facilities are available.
16. Arrange to draw out without undue delay the unaffected portion of the train involved in the accident if the affected portion of track is certified safe by SE/P-way to a nearby convenient station where eating and drinking water facilities are available.
17. Arrange diversion of long-distance trains if found necessary keeping in view the time required for restoration of the line / lines in consultation with respective HQ office of other adjoining Railways.
18. Ensure that information counters/booths are opened at the accident site as also at

other important stations / junction stations enroute for giving the information to the public.

19. Ensure frequent announcements through the public address system regarding arrangements for diversion of trains / regulation, probable time of arrival of the relief rake for stranded passengers etc.
20. Advise to all civil authorities, Superintendent of Police, State Police within whose jurisdiction the accident has occurred.
21. Advise concerned RPF officials for arranging protection of Railway and public property.

IV. Duties of Engineering Control

1. Collecting information from site and conveying the same to concerned Engg. officers at Corporate Office & RRM office. Details of damage to track, requirement of P.way material, Tools, Plants, Machinery, Vehicles etc. for restoration of track. Requirement of labour, extent of work involved, any assistance required e.g., food, drinking water, lighting arrangement and probable time for restoration.
2. Making arrangement for required material, labour and arranging to push the same to the site by road or otherwise by quickest means.
3. Conveying the instructions of Corporate Office to the concerned officials at site as and when required.
4. Arrange path / block for engineering Train / vehicle or engg. work in consultation with the controller for speedy restoration work.

V. Traction Power Controller:

1. Ensure that the Electric Power Supply is cut off from the section if the overhead equipment is involved and / or where crane working has become necessary.
2. Ensure that all the necessary arrangements have been made for despatch of Tower-car, electrical staff and equipment required at the site of accident.
3. Co-ordinate with Sr.REE/REE, Dy. Chief Controller and concerned Supervisors for quick restoration of affected OHE.

VI. Commercial Control:

Commercial control plays a very important role in organizing rescue, and restoration in all types of accidents and, more so, in case of accidents involving casualties/injuries.

Important tasks to be handled by commercial control in case of a serious accident are as follows:

1. Inform CCM/Dy.CCM/RRM
2. Commercial control should alert the commercial supervisors on either side of the accident site for proceeding to site either by rail or road. They should take with them sufficient number of off duty commercial staff, porters, catering items, cash, etc.
3. Commercial control should also establish contact with the TTEs on the train and

instruct them to first rescue the injured passengers and render first aid. The TTEs should also collect and protect the luggage of dead and injured passengers. He will coordinate with TTE/TMR and get the number of passengers of the train.

4. With the help of the TTEs and commercial staff who reached site, the details (Name, ticket no, phone no, designation, address, etc.,) of dead and injured passengers have to be collected. Simultaneously, the details of Doctor's classification of injuries as grievous or simple should be collected. All these details have to be relayed to the originating/destination/important junction stations so that the relatives of the dead/injured passengers can be informed.
5. Arrange for refunds as per rules.
6. Arrange for free passes for the relatives of injured/dead to reach the site/hospitals.
7. Organize for making ex-gratia payments as applicable on the basis of the injury classification given by doctors.
8. Co-ordinate with operating control for the transport of the passengers of the affected trains. Similarly, organize to regulate other passenger carrying trains at stations where catering facilities are available. Alert the catering staff/ catering contractors at those stations well in advance about the regulations.
9. Make arrangements so that drinking water is supplied to the Railway staff working at site. Catering arrangements should be planned well in advance for the Railway staff working at site, so that food reaches site in time.
10. Mobilize logistics like vans, staff, etc., for reaching and distributing food at site.
11. Nominate commercial staff to associate with GRP/RPF for drawing — Panchanama of the dead passengers in the hospitals.

VII. Duties of S&T Control

1. Inform CSTE/Dy.CSTE
2. Ensure that the Emergency Telephone is provided at the site and is in working order.
3. Ensure provision of live coverage of accident site at Control Office
4. Monitor the communication network continuously and ensure against failure.
5. Where required take help of other control and work jointly for early restoration

VIII. Duties of Station Masters at adjoining stations

As soon as the information of accident is received from adjoining Block station,

1. Ensure that no other train enters the affected section whether single or double line and thus protect the adjacent line and same line from either end.
2. Inform the station Master of the adjoining station of the affected block section to hold the train movement from his end whether single- or double-line section.
3. Close the block working by turning SHUNT Release Key & Extraction of Shunt key provided near block Panel, record the signal, Point & Track circuits as the case may be.

4. Collect the information regarding accident and advise to Control Office like time, location- i.e. KM, between station, curve, tunnel, cutting, bridge, level crossing, gradient etc., type of rolling stock, position of affected bogie/ wagon from engine., nature of accident e.g. collision, derailment, Level Crossing accident etc., causalities/injuries (Grievous, Simple, Trivial etc.), probable cause of accident, probable detention to trains., transshipment into other train is required or not, medical and other train is required or not and other information as required.
5. Call all staff (on Duty and Off Duty) for assistance.
6. Advise all concerned officials of various departments head quartered in the section and available in the jurisdiction by sounding siren (if available) and give message / telephone.
7. In consultation with the control., order ART/ Self-Propelled ARM cum MTV / RMV, if required and arrange to dispatch the same as quickly as possible. Inform the Civil and Police authorities, if necessary, ask for assistance from Railway Doctors and local doctors of the nearby hospitals, dispensaries and medical Practitioners, Inform Road authorities (State Transport) and other Agencies as required and arrange transportation for stranded passengers.
8. Give First Aid to injured persons and arrange to send them to the Local/Railway dispensaries/Hospitals.
9. Provide service to the affected passengers by arranging food, drinking water and protection of their luggage.
10. Make arrangement for giving information to the public about the names of the injured/dead, diversion/regulation of train etc. also assist civil authorities in identifying & disposal of dead bodies if sought.
11. Promptly collect the various information regarding assistance required at site and convey the same to the concerned authority and help in quick restoration of traffic.
12. Keep one or two lines free in the yard for reception / dispatch or for shunting of ART / Self-Propelled ARM cum MTV or other relief train for early movement to the site.
13. If considered safe arrange to clear unaffected front / rear portion of the train. While sending any train (ART / Self-Propelled ARM cum MTV or Light Engine etc) be careful for their safe movement by giving proper authority to proceed without line clear etc. as per rule.
14. In case of suspected sabotage, preserve all clues and arrange to protect the area. Advise Collector / SP, other Security officer of Railway & State Police.
15. With awareness growing in the society and availability of ambulance even in smallest villages the local people are the first to respond and taken the injured to various hospitals. Contacts should therefore be established with the local village heads.
16. As per order of the competent authority ex-gratia payments to be made as per extant rules and refund of tickets etc. and keep record of cash drawn and payments made. Open information counters and booths for giving information to public regarding names of injured, dead etc.
17. Announcement to be made correctly regarding trains diverted, regulated and

other information from time to time. Deal with passengers with courtesy and listen patiently at such crucial time and earn sympathy. Don't lose your cool.

18. Before allowing train movement after restoration of track ensure that track fit certificate is received in writing from concerned competent engineering official duly ensuring the affected section is clear from all trains / vehicles e.g., ART / Self- Propelled ARM cum MTV / Motor Trolley / Lorry etc.
19. All functionaries should be advised regarding the accident:
20. Inform civil authorities, village / town / city representatives and volunteers for possible relief assistance.
21. Call for assistance from local Doctors, Ambulance, Civil and Army Hospitals. Civil defense, Scouts and guides or any such organization.
22. Mobilize local medical team, arrange adequate number of First Aid boxes, stretchers & ARME Scale II at site.
23. Obtain reservation charts and display it.
24. Collect information of dead/injured and convey it whenever asked for.
25. Arrange for transport from local resources if available for transporting injured passengers to nearest hospitals by fastest possible means. For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.
26. Stranded passengers to be transported from the accident spot by arranging transshipment either by train or by hiring road vehicles.
27. Advise RPF / State Police to provide security to passengers, their belongings and railway property and also be asked to assist in rescue and relief work.
28. Try to set up communication facility at site in co-ordination with S&T department.
29. Make available phone to relatives of dead/ injured.

IX. Duties of Railway Staff travelling in the affected train

1. Whenever a train is involved in a serious accident with casualties/injuries to passengers, all railway staff traveling on the train either on duty or on leave are deemed to be on duty with immediate effect.
2. Under no circumstances should any of them leave the accident site unless and until regional officers arrive, take over charge of rescue and relief operations and permit them to leave.
3. Railway staff on train/at site shall volunteer themselves to render assistance and report to TTE/ Train Manager of the Train.
4. The senior most officers traveling on the train will assume charge as Officer-in-Charge at Site.
5. The senior most Officer or Railway staff will be traveling either in the train, the TTE should know about their particulars.
6. In the absence of any officer, the senior most TTE/ Train Manager will discharge duties listed out for site officer.

X. Duties of the Officer In-charge at the site of accident

1. Arrange for installation and constant manning of the emergency portable telephone

at site of accident and the person thus deputed should contact central control after every 15 minutes or as required for conveying the information received from the site or control office.

2. Ensure protection of the adjacent line(s) (if double or multiple lines) and then the line of affected train.
3. Make a quick assessment of: Number of killed, seriously injured and slightly injured persons, assistance required, extent of damage, probable / prima - facie cause of accident, probable detention to traffic and relay this information to central control for transmission to concerned officials.
4. Ensure arrangements for rendering first aid at the site, transporting injured to the nearest Dispensary/Hospital.
5. Contacts should therefore be established with the local village heads.
6. With awareness growing & availability of Ambulance even in small villages, the local people are first to respond and take the injured to various Hospitals. Contact should therefore be established with local head.
7. Arrangements to look after dead bodies, identification of the bodies, transporting injured to the nearest stations and to advise police etc.
8. Arrangements for transporting stranded passengers preferably to the station where drinking water, catering arrangements etc. are available.
9. Clues to be preserved and be noted. Joint track, wagon and other observation to be taken. Arrange clearance of the un-affected portion of train at the site, to facilitate closer arrival of ART, cranes etc. preliminary statements of concerned staff (Train Manager, LP or ALP etc.) are also arranged to be recorded.
10. If sabotage suspected, advise District Magistrate / Superintendent of Police and wait for their clearance before taking up restoration work.
11. Ensure adequate security and protection of the area.
12. Depute officers / staff for specific duties in rescue operation, preservation of clues & transshipment work.
13. Arrange for the opening and manning of inquiry booths at important and convenient points and also record of information concerning the accident and relief operation in the form of accident log.
14. Arrange through liaison with the Corporate Officers concerned at central Control office for transshipment of passengers, if necessary, diversion of trains restriction of traffic, and running of duplicate trains.
15. Keep the officer in-charge of the Control Office informed of the progress of clearing operations. For this purpose, Area Supervisor/ JE/SE/S&T or other responsible official be posted to attend and contact Belapur control through emergency telephone continuously.
16. Move the damaged vehicles from the site promptly after re-railment and being certified fit to be moved out.
17. Depute a responsible Commercial officer to look after the needs of stranded passengers like supply of drinking water, food etc.
18. Ensure adequate lighting of the area in case of night fall or darkness.
19. Arrange labours for unloading where necessary, before Self-Propelled ARMV cum MTV / ART Crane(s) arrive.
20. Timely arrangements for staff meals where required or permitted.

21. Ensure that Commercial staff takes down booking and other particulars of loaded wagons.
22. Keep contact with State Transport authorities for arranging buses for transportation of passengers.

XI. Duties of Engg. officials first reaching site of accident

On receipt of information regarding accident, proceed to the site by the quickest available means.

1. Collect information about the extent of damage to the track and make arrangement for the required material, if possible, depute someone to make necessary arrangements in consultation with Engineering officials in control office.
2. On the way, if necessary, inform the concerned staff to proceed to accident site.
3. Report to the site in-charge & take action to ensure protection of affected track as per prescribed rules, help in rendering First Aid to injured and rescue operation, take details of damaged track, site description (Tunnel, cutting, bank, LC gate, Bridge etc.), nature of accident, probable cause of accident, labour and material required for restoration and probable time of restoration.
4. Apart from the officer in-charge at site, advise above information to the central & Engg Control, higher Engineering officials in head quarter office and in the section, and take further instructions from them. Preserve all clues of accident and prevent tampering by anybody.
5. Record the observation at site jointly with concerned senior sub-ordinates of other departments.
6. Prepare detailed site sketch and if possible, take photograph of the site, showing the details of damaged site position of accident spot.
7. In case of suspected sabotage, the clues of site should not be touched/ disturbed till local Police officials reach the site and permit to attend the damaged track.
8. In case accident at level crossing gate, arrange to collect the details of whistle board, road sign board, speed breaker, gradient of approach road and track etc, and draw the rough sketch and their distance with reference to center line of level crossing.
9. Track should not be attended till joint observation, measurements are taken and jointly signed by concerned senior sub-ordinates and permitted by officer in-charge at site.
10. Track Restoration work should be carried out as per the instructions and with co-ordination of officer in-charge at site.
11. Deploy / distribute labour with required material at different works and monitor/supervise the work by deputing proper supervisor and use them in planned manner. Day and night duty may be arranged depending on the site requirement.
12. Ensure adequate lighting arrangement in advance for working in night. For work in tunnel ensure continuous lighting during day & night for speedily restoration

work.

13. Arrange for drinking water and food supply to the staff working under you in co-ordination with other departments and the supply of food should be made liberal & within reasonable time. If required and permitted by higher competent authority, labour, material, tools and machinery may be arranged through contractor.
14. Arrange to keep proper record of material and labour received, distributed and used at site.
15. Give necessary help to other departments in restoration / rerailment operation by way of clearing damaged track, linking and attending new/old track for crane working as the case may be.
16. Be in touch with control or depute a suitable person at field telephone to convey or take information from control office for any assistance required for smooth and speedy restoration of traffic.
17. Before giving Track Fit Certificate, check the track parameters, clearance of obstructions from track etc. personally and ensure that track is safe for passage of traffic.

XII. Duties of Security / RPF officials

1. On receipt of the information of the accident, the senior most RPF official should immediately proceed to the site with available force by quickest means and arrange for any additional staff as required and inform Station Master accordingly.
2. Contact local State Police/District Police Official and ensure that the accident is reported to them also. Co-ordinate with the State Police / District Police in the investigation of the case.
3. On arrival at the site of accident, assist in extricating persons from wrecks, render First Aid to the injured and evacuate the injured and uninjured persons from the site.
4. Guard the belongings of the accident victims and railway property.
5. Look out for suspects in the vicinity and keep note of any clue that may be useful in finding out the cause of the accident.
6. Fight any fire that may break out at the site of accident.
7. In case of suspected sabotage, ensure presence of Civil Police Officer at site before starting any work of restoration & no such works should be started without their permission.

XIII. Duties of Safety officials

Immediately on receipt of information of a serious accident, the Regional Safety Officer shall reach the site of accident by quickest means. He will be especially responsible to: -

1. Ensure protection of affected line(s) and adjacent line(s) as per rules.
2. See that a proper arrangement is made in rescue and/ or relief operation;
3. Arrange to obtain initial statements of concerned staff such as LP / ALP / Train Manager/ Station Staff / Gateman etc. The event logger report of the loco for the train should be taken out and sealed and kept in custody for perusal by the inquiry committee.
4. Seize and seal the relevant record/ document such as Train Signal Register, Station Diary, Guard's journal. Driver's Journal, Loco Defect Book etc. The position of various signals, points, etc. the panel counter readings should also be recorded.
5. Take all action for preservation of clues: Arrange for photographs and video filming of the site of accident before commencement and during the progress of restoration
6. See that the assistance to the extent necessary is called from all sources;
7. Ensure collection of detailed particulars of the accident;
8. Ensure preparation of a general note of all evidence in regard to the cause of the accident.
9. Nominate the supervisors team consisting of AS / SS /TI, LI, SE(C&W), SE (P-way) and SE (S&T) to take joint measurements of track and wagons/ coaches / Signal gear etc as per the proforma and get the 'Joint Note" prepared by the Senior Supervisors.
10. Ensure co-ordination of all the departments concerned in rescue and / or relief operation;
11. Assist RRM / Officer-in-charge of site in obtaining the prima facie cause of accident and repeat the same to Control office.
12. Arrange continuous manning of the site telephone by S&T staff and logging of event / restoration details in the Accident Register at site. The restoration particulars should be continuously updated and repeated to control office.
13. Advise and update the progress of restoration with latest position to 'Disaster Management Cell' at HQ and Regional control and Belapur Control.

XIV. Duties of Mechanical Supervisors

1. Proceed to the site of accident by first available means on receiving information.
2. At site, examine the loco and Rolling stock of the train involved and take details of any damage or deficiencies.
3. Secure any detached or broken part of the affected train.
4. In the presence of concerned Sr. subordinates of other departments, preserve the Air pressure Certificate (Brake Power Certificate), Caution Order, event logger report of loco, loco repair Book and staff statements.
5. Record joint observation of accident site, preserve clues.
6. Record jointly measurement of rolling stock/loco involved and other aspects of rolling stock and track as per prescribed proforma with Sr. subordinates of other departments.
7. Supervise/assist working of crane and clearance/rescue operation.

XV. Duties of Mechanical Break Down Staff

1. On receiving information, Break Down staff should promptly rush to the Break-Down train without delay.
2. Check up the availability of rescue material such as Ration, Water, Equipment etc. If anything is found short, make up the same without losing time.
3. Break down in charge should collect information from Control office regarding nature of accident, such as collision, derailment, boulder fall, flooding etc., if possible, speak to the concerned crew of involved train regarding assistance required, dummy wagons, crane or any other requirement or in which end breakdown train is required. Keeping in mind the permissible time, presence of concerned staff/officers chase up for departure of Break- Down train.
4. He should record the time of important events, movements and should work the train even in absence of Train Manager. (For which he should be thoroughly acquainted with traffic rules)
5. On arrival at site, he should make a quick survey for arranging rescue material, and plan for restoration of traffic. He should record observation at site and draw a rough sketch where required.
6. After consulting the site in-charge, report the prima-facie cause and forecast time to the control office, also mention any assistance if required.
7. Unload the jacks, MFD equipment, wooden packing at the nearest place to avoid carrying same to longer distance on head and on odd roads.
8. While placing jacks ensure its placement on solid base and avoid infringement / hindrance to other works of restoration including crane working. The hooks should be properly placed which will not imbalance or break. Lifting should be done gradually and carefully under one man's instructions/directions.
9. Care must be taken to arrange food, tea etc. for the staff in time.
10. If required, take necessary help such as manpower, material etc. from other departments without hesitation.
11. After completion of work take care to collect all the material issued to the staff during restoration operation. Full report of accident must be prepared and keep complete record.
12. If any toppling of vehicle is required at site/ in the section, special care to be taken for securing same and also ensue that it is not fouling to running lines in any way.
13. Clearing of damaged vehicle from the site must be done with utmost care.
14. Always ensure safety of the staff working at site.

XVI. Movement of Self-Propelled ARM Cum MTV

1. If Self-Propelled ARM cum MTV is ordered, it should leave the station within 15 minutes in case of double exit and 20 minutes in case of single exit.
2. If Medical Officer of the section is not available when the information of the accident is received, then the paramedical staff should proceed to the site with all the available equipment.
3. The Self-Propelled ARM cum MTV should move within the stipulated time as (i)

above without waiting for the medical Officer.

4. When Medical officer is not moving with Self-Propelled ARM cum MTV, it will be placed at the disposal of any available qualified medical personnel at the site.
5. Self-Propelled ARM cum MTV can pick up the medical officers enroute but should not be detained to pick up persons.

XVII. Duties of Electrical officials

1. Electrical officials shall ensure proper and adequate lighting at site of work during night and in tunnel during day and night to facilitate smooth and speedy restoration.
2. Ensure no failure of light in case of any accident in Tunnel.
3. The senior most official representing electrical department shall obtain the details of extent of damage to electrical installation, AC & Non-AC coaches.
4. He shall obtain the bio-data particulars of AC mechanic & power car staff involved in the accident.
5. He shall assess the requirement of material for providing illumination during night time at the site of accident.
6. In case the accident is inside the ventilated tunnel, he shall assess from the tunnel ventilation controller, the details of extent of damage to the ventilation system and shall direct the ventilation controller for undertaking ventilation of the tunnel as required.
7. In case of Fire in coaches, immediately collect / record evidence of passengers with full particulars. If some passengers are willing to give evidence later on, their names and addresses should also be recorded.

Over-Head Equipment

1. In case of an accident, where OHE is involved, arrange for adequate number of break-down staff / tower wagon and proceed to the site of the accident by the quickest available means.
2. Ensure the OHE is made dead and OHE is slewed as required for ground / crane operations.
3. Arrange and supervise restoration of OHE expeditiously.

XVIII. Duties of Tunnel Ventilation Controller

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

1. Control the ventilation in tunnel as per the procedure given in the Konkan Railway’s G&SR rule No. SR 5.23(7) & 5.23(8)
2. Arrange to illuminate the Tunnel lighting.
3. Passengers/Staff trapped in the tunnel should be alerted by sounding siren as required.
4. Be in touch with Site and Central Control for any instructions/ assistance.
5. Save passengers/staff trapped inside tunnel from suffocation.

6. If any train/vehicle or any obstruction in the tunnel is appeared on the tunnel indicator board, do not allow other train/vehicle etc. in the tunnel and inform central control and station master concerned accordingly.
7. Record movements of train, vehicles, failures, unusual occurrence etc. in the register with date time of occurrence.

XIX. Duties of AC Mechanic

He should immediately 'switch off' the power where necessary to avoid short circuiting. He should also assist commercial staff i.e., train conductor / TTEs on their duties at accident site.

XX. Duties of Signal & Telecommunication officials

1. On receiving information, rush to the site of accident by first available means with required staff and equipment.
2. Ensure that the Emergency Telephone is provided at the site and is in working order.
3. Monitor the communication network continuously and ensure against failure.
4. In case of signal gear, point, signal etc. is involved.
    i. Take joint observation at site with other Sr. subordinates.
    ii. Ensure movement of any train/vehicle on the affected point only after proper setting and clamping the same.
    iii. Arrange early restoration of Signal & Telecommunication work by utilizing proper staff.
    iv. Where required take help of Engg. Staff and work jointly for restoration of damaged point/track.

XXI. Duties of Commercial Staff

i. Ensure that adequate arrangements have been made for refreshments, drinking water and licensed vendors, where necessary.
ii. Arrange for prompt transportation of passengers from site of accident.
iii. Look after the comforts of the passengers.
iv. Collect evidence from passengers, record & preserve the same for further enquiry/investigation.
v. Note down the name of persons given First Aid or Medical attention.
vi. Assist in Railway Security Duties.
vii. Ensure that adequate arrangements have been made for lighting up the accident area/tunnel as also the route to be followed where transshipment of train is involved.
viii. Arrange for adequate number of licensed porters for carrying passengers' luggage and parcels.
ix. Arrange adequate labour for unloading affected wagons, parcels/luggage where necessary at stations and the same be properly stacked and preserved from rain and damage. Also arrange to guard/prevent from theft.

x. Arrange to have the consignment lifted from the site of accident for dispatch to the destination.
xi. Ensure that refreshments sent are supplied to the injured passengers at free of charge and promptly in time and responsible officials should be put in-charge for distribution of refreshments.
xii. Arrange for meal for the staff working at site / Self-Propelled ARM cum MTV/ART running staff etc.
xiii. The belongings of the injured and dead to be collected. The list of each item with distinguishing mark to be made. Services of licensed porters and Ticket Collectors must be taken for this purpose.
xiv. Compiling the list of injured and dead which should be prepared and signed by concerned authority.
xv. Ensure that the Railway Doctor In-charge, assisted by licensed porters and other staff in attending to the injured.
xvi. Make over the dead bodies to the police for disposal.
xvii. Arrange to record particulars of damaged consignments.
xviii. Inform the Officer In-charge in Control Office about the progress of the disposal of the injured and dead.

XXII. Duties of TTE / Conductor.

1. Help in ensuring passenger comforts, rescue of affected passengers and render first aid to injured in need of the same.
2. Keep up - to - date record of passengers injured / dead, rendered First Aid and transported to various hospitals – e.g., name of injured, the mode of transport used, the name of hospital sent, address of the hospital etc.
3. Maintain a list of Railway Staff / Doctors traveling in the train on duty / leave with name.
4. In case of accident of train in tunnel, assist transporting of passengers from affected coaches to unaffected and safe coaches or outside the Tunnel carefully and sympathetically.
5. Make arrangements for drinking water from nearby area through Coach Attendant and other fellow Railway men.
6. Help passengers in case of transshipment on relief train.
7. Record evidence of willing passengers.
8. Help to safeguard the belongings of the passengers with the help of RPF & other fellow Railway men.

XXIII. Duties of Coach Attendants

1. Ensure the vestibule of coaches are clean, clear and safe for passage.
2. Ensure the rolling shutters of coaches are open and working for movement of passengers.
3. Assist passengers in orderly evacuation when need arise.
4. When train is held up for any reason advise passengers to be patient and not to panic.
5. On demand, supply drinking water to stranded persons.

6. Render First Aid to passengers when need arises.
7. In case of fire noticed on the coach, transfer the passengers through vestibule to safer coaches, make efforts to extinguish fire, after which rolling shutters should be closed to prevent spread of fire/smoke to the unaffected coaches.
8. Follow the instructions of Train Manager.

XXIV. Duties of Medical Officer / Medical Staff

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

i. Note the time of receipt of the information.
ii. Note the time of occurrence of accident.
iii. Note the time of departure of Self-Propelled ARM cum MTV, if ordered.
iv. Rush to the station and report to the SM and record the time of his/her arrival.
v. Inform the Chief Medical Officer.
vi. Inform the Medical Officers of the adjacent Health Units.
vii. Should proceed to the accident site by the quickest mode of transport and note the arrival time
viii. The Medical Officer before leaving the site of accident, must depute an official who should
    a) Inform all authorities concerned to cooperate in releasing the persons trained in first aid to render medical aid and assist in transport of injured to various hospitals,
    b) Inform local non-railway hospitals about the accident and advise them about the requirements of beds and other facilities.
    c) Seek assistance from neighboring Govt / Private Hospitals if the nature of the accident warrants.
    d) Be in touch with the accident site to organize and augment medical facilities required at the site.

XXV. Duties of Personnel Department:

1. Issue of passes in connection with Railway accident.
2. Complimentary passes may be issued to the next to kin of victims or injured from any station in India to the site of accident and back to their destinations as well as to the surviving victims who are discharged from the hospitals. The class of pass of the victim should be the same in which he was traveling or higher if recommended by the doctor. The class of pass to the relative should be determined according to the status of the person.
3. Such passes should be issued with the approval of RRMs or CPO, (in emergency RPO/APOs may issue pass after obtaining the authorization by wire or phone)
4. Such passes may be issued to not more than two relatives of the injured or deceased passenger.
5. Sufficient safeguards may be adopted so that these passes are not misused.
6. Break journey on such passes should not be allowed.

Note: -

The term ‘destination’ used above should be interpreted liberally, and should not preclude a destination other than that to which the passengers intended traveling before the accident. Since the accident itself would naturally affect their plans.

1. Free II class Railway passes may be issued to the claimants and such witnesses as may be deemed necessary by the railway officers deputed for the purpose, for travel from their homes or places of residence to the court of Claims Commissioner and back.
2. The passes to the members of public other than Railway employees, who attend enquiries held by the Government inspector of Railways for the purpose of tendering evidence in connection with the Railway accidents will be issued by the Government Inspector of Railways concerned except in case of public witnesses whose attendance is arranged by the Railway administrations in their own interest.
3. Complimentary passes may also be issued to the surviving victims of train accidents, when such persons are required to appear before the Medical Board for assessment of their claims. The class of such passes should normally be second class but higher class in deserving cases may be permitted at the discretion of competent authority.

XXVI. Management at the site

1. Do not lose cool. Keep focused attention.
2. Assess the extent and seriousness of accident to plan medical relief.
3. Render prompt medical aid and arrange early transportation.
4. Set up field dressing units,
5. Arrange administering Breath Analyzer test on LP/ALP and Train Manager.
6. Wear arm-bands for easy identification.
7. All the injured should be dealt with in a systematic manner.
8. While attending the injured, the following particulars should be noted. Name, Full Address, Tickets/Pass No. with full particulars of journey. Two marks of identification, details of injuries, existing deformities and old scars and earlier injuries, only rough notes are to be recorded at the site based on which detailed reports are to be made out later.
9. Injured persons should be shifted to the nearest Govt. Hospital, except in the following conditions.

    i. Non – availability of a non-Govt hospital.
    ii. Want of accommodation in non-Govt hospital
    iii. Unsuitability of the non-Govt. hospital to render efficient treatment
    iv. Difficulty of transportation.
    v. Serious condition of the patient.
    vi. Any other circumstances considered justifiable by the attending Medical

Officer.

10. Tally cards giving particulars of name, father's name, age, sex, address, ticket/pass number, brief notes of the injuries and first aid rendered should be attached around the neck of all the patients being transported to the hospitals.
11. Advise CMO / RRM about the list of the dead, injured, nature of injury, name of the hospital where the injured persons have been transported etc.
12. Do not give any information to the public / Press. Only CPRO / RRM will address the press.
13. All dead bodies should be sent to the mortuary and handed over to the Police officials.
14. Due respect should be shown while handling the dead body.
15. The progress of the injured persons admitted in various hospitals must be checked daily in the first week and weekly thereafter.

*****

Chapter No. 11
REGIONAL RELIEF MEASURES
"A shortcut is often a wrong cut"

I. Regional Preparedness

Regional Officers should be fully aware of the local resources, army and other resources available for supplementing their disaster management efforts as and when required. Important telephone numbers of officials of Konkan Railway, adjoining Railways, State and District authorities, Hospitals, Fire stations, etc. has been prepared and attached as Phone Directory. These contact numbers shall be updated by 31st of March of every year by concerned Regional Railway Managers. Also, the additional resources that might have come up during the year, relevant to capacity building for rescue and relief operations on railways may be included. Details of relevant items pertaining to each station must be available individually at major stations also. These details must be reviewed and updated in the month of January every year.

II. Disaster Preparedness – Self-Propelled ARM Cum MTV

Self-Propelled ARM cum MFDTVs on Konkan Railway are located at RATNAGIRI and VERNA. Both these are placed on siding with double exit. SPARM Cum MFD is propelled by an in-built diesel engine and is capable of moving in both directions. Tool Van - One Tool Van is available at Surathkal. There is no dedicated Locomotive assigned. Immediate available Loco which can be spared to be utilized.

III. Accident Relief Medical Equipment (ARME) Scale II are located at following stations on Konkan Railway Route.

1. Mangaon
2. Diwankhavati
3. Chiplun
4. Sangameshwar Road
5. Vaibhavwadi Road
6. Kudal
7. Madgaon
8. Cancona
9. Karwar
10. Bhatkal
11. Udupi

IV. **Road Ambulance**: There are no Road Ambulances over KR except one Maruti Omni Make located at Ratnagiri station.

Ambulance services can be sought wherever possible by dialing 108.

V. **Rail Maintenance Vans (RMV)** are located at **VEER, CHI, RN, RAJP, KUDL, VEN, KAWR, BTJL & UD**. These vehicles are useful for reaching the accident spot quickly with men and material.

VI. OHE Depots & Tower Wagons

List of OHE depots:

SN	Name/Location
1	Mangaon
2	Chiplun
3	Ratnagiri
4	Kankavali
5	Karmali
6	Karwar
7	Murudeshwar
8	Udupi

VII. Accident Relief Train

ART with 140 T Gottwald crane is located at Verna with double exit under the control of Sr.RME / MAO. Crane Supervisors will ensure availability of adequate fuel and water in the crane at all times. On getting emergency call, the Crane Supervisors shall check and ensure correct marshalling of Crane according to site requirement. Alert the standby Crane Operator of 140T Crane.

VIII. Target Time for Turning Out Self-Propelled ARM cum MTV

The target time of turning out the Self-Propelled ARM Cum MTV is **15 minutes** as both are provided with double exit. The above time should be reckoned from the moment the SIREN is sounded till the time Self-Propelled ARM cum MTV is ready in all respect for dispatch. ART Special formation is stabled complete on separate siding having double entry for faster exit in both directions. Rescue / Restoration equipment are kept as per Railway Board's instructions.

IX. Target Time for Turning Out ART

The Accident Relief Train must be turned out/ dispatched from the base station to the site of accident within 30 minutes by day / 45 minutes by night from the time of sounding the hooters.

Note: In case of road approach is faster, prevailing equipment may be moved by road as required.

X. Authority to order movement of SPARM cum MTV and ART

1. On receipt of information about serious accident involving casualties, SPARM cum MFDTVs and ARTs shall be ordered immediately.
2. This decision would be taken by the CHC/ Dy CHC on duty and nobody's authorization would be required for ordering the same.
3. After sounding of SIREN, the Self-Propelled ARM cum MTV and ART should start within the stipulated target time.

XI. Sounding of Hooter

Area of activity	Siren/Blast Code	Number of blast/Siren	Duration of each blast/Siren	Time interval in blast/ Siren
Home Station	Only ART is required	TWO	45 Sec	05 Sec
-do-	ART+ SP ARM cum MTV both required	FOUR	-do-	-do-
Out of Home Station	Only ART is required	THREE	-do-	-do-
-do-	ART + SP ARM cum MTV is required	FIVE	-do-	-do-
Cancelled	--------	ONE	90 Sec	-----
Trial	----------	ONE	90 Sec	-----

*****

Chapter No. 12
ASSISTANCE FROM OTHER SOURCES
"Safety runs trains on right path"

I. Help from State Governments:

With the provision of existing ARTs / SPARM cum MFDTVs, the Railway administration may not be able to reach the site of accident in reasonable time, **say within 2 (Two) hours in all cases.** Railways may provide road vehicles or road mobile Accident Rescue & Relief Van and State Government may provide necessary medical / paramedical support for their manning and deployment. Railway may also approach Railway Rescue and Relief Commissioner at state Head quarter for ensuring co-ordination between Railway and civil authorities.

II. District Level Relief Commissioner:

District Collectors and Superintendent of Police are nominated as Relief Commissioners at District level.

III. Service of NGO's

In Major Disaster, Railway and State Government resources may not be adequate to handle disaster efficiently and in such cases local NGO's help is very necessary.

IV. ARTs of adjoining Railways / Divisions

SN	Base Shed	Description	Controlling Officer	Rly Phone No.	BSNL/MTNL phone No.
1	Kurla/ C Rly	140 T ARTs with MFD/ Rerailing equipment	CME/ C. Rly	(010)54150(O)	022-226202(0) 09987640350
2	Mangaluru/ S. Rly	SPARMV cum MFD rerailing equipment	CME/S. Rly	(060) 22499	044-25353582 09445071630
3	Erode / S. Rly	SPARMV/ 140T Crane ARTs with MFD/Rerailing Equipment ART/ SPARMV	CME/S. Rly	(060) 22499	044-25353582 09445071630 0836-2367030
4	Hubli/S.W. Rly	With 140 T Crane ARTs with MFD/ Rerailing equipment	CME/SW. Rly	(065)25800	09448998030

V. National Disaster Response Force (NDRF)

NDRF Battalions have suffice number of personnel trained in Heli slithering & it is possible to Heli drop commandos at the site of Major disaster. KRCL may need to work on arrangement of quickest transport say Airlifting of NDRF Men & facilities as circumstances demand.

VI. Training on Disaster:

The NDMA has offered to train the trainers of Railway organization, particularly RPF wing. Vice versa, Railway is required to provide opportunity to facilitate the training of NDRF personnel to expose & make them acquainted with Rolling Stock design specifics and the Safety Measures / safety gear of Railway system through its training institutions.

As per Disaster Management Act 2005, various ministries and departments under the Government should join hands for tackling disaster. Assistance from local government and non-government agencies is invariably required by the railway administration for prompt relief and rescue operations in case of disasters affecting railways. Assistance of NDRF could be of great help to the railways in major disasters.

The NDRF Battalions are being equipped, trained to carry out Search, Rescue and Relief operations during any natural or man-made disaster and will extend all possible support to Railways in their endeavors to carry out such tasks, if called for. The NDRF personnel are not trained in bomb disposal and are not also to be deployed on security or other Law & order related duties at the site of disaster except Specialized search and rescue operations.

NDRF have been formed under the Disaster Management Act at 16 selected locations in the country to deal with relief and rescue operations related to all types of disasters.

At present, National Disaster Response Force consist of 16 battalions, from the BSF, CRPF, CISF, ITBP, SSB and Assam Rifles. Each battalion have 18 self-contained specialist search and rescue teams of 45 personnel each including engineers, technicians, electricians, dog squads and medical/paramedics. The total strength of each battalion is 1,149. All the 16 battalions have been equipped and trained to respond natural as well as man-made disasters. Battalions are also trained and equipped for response during chemical, biological, radiological and nuclear (CBRN) emergencies.

The force shall be constituted in such a manner and the conditions of service of the members of the force, including disciplinary provisions therefore, be such as may be prescribed. The control for the force shall be vested and exercised by the National Authority. The command & supervision of the force shall vest in an officer to be appointed by the central government as the Disaster General of the NDRF. NDRF shall be constituted for the purpose of specialist response to a threatening disaster situation or disaster

VII. Training, Simulation and Mock Drills

Efficacy of plans and Standard Operating Procedures (SOPs) are tested and refined through training, seminars and mock drills. The NDMA will assist the States/UTs in these areas and will also conduct mock drills in different parts of the country. State and district authorities will be encouraged to generate a culture of preparedness and quick response. Gradually state governments will be encouraged to plan a series of exercises for various types of disasters in collaboration with NDMA to enhance the response level of various stakeholders.

Joint mock drills to be arranged for exercising & acquaintance with the system. It plays vital role in preparing the strategy, gives opportunity to fill up the gaps left if any, during course of managing actual disaster. Whenever Mock Exercises are undertaken in the state(s) by the NDMA, the Railway. safety officials would also be associated & the Railway facilities / infrastructure available could be shared in the composite management of disaster.

VIII. Disaster Preparedness

During any disaster, communities are not only the first to be affected but also the first responders. Community participation ensures local ownership, addresses local needs, and promotes volunteerism and mutual help to prevent and minimize damage. Therefore, the efforts of the States / UTs, in this regard need to be encouraged.

The needs of the elderly, women, children and differently abled persons require special attention. Women and youth will be encouraged to participate in decision making committees and action groups for management of disasters. As first responders to any disaster, communities will be trained in the various aspects of response such as first aid, search and rescue, management of community shelters, psycho-social counselling, distribution of relief and accessing support from government/agencies etc. Community plans will be dovetailed into the Panchayat, Block and District plans.

IX. Coordination with NDRF

KR is in touch with NDRF 5th battalion for requirement in State of Maharashtra & Goa and 10th Battalion for State of Karnataka, have the first-hand knowledge of the resources available with them and also to familiarize them with railway related disaster situations and expose them to the issues relevant to the rescue and relief of passengers during railway accident. CSO to liaise with NDRF Bn Commandants through coordination meetings, to exchange ideas, explore venues of co-operation & evolve mechanism for helping each other through their respective capacities. It has also been advised to associate NDRF in full-scale exercise that is held once every year. There are no charges for availing the services of NDRF except the rail transportation which railways may provide at their cost for attending to rail disasters.

RRM will intimate CSO about requisition of NDRF services if magnitude of disaster craves so. CSO will immediately & judiciously approach NDRF commandant under whose area of responsibility the said incidence took place with information to NDMA. The NDRF Teams will move immediately to assist Railways along with their all equipment's to site of disaster.

Railways may also have to provide rail transportation logistics for transporting NDRF in case of non-railway exigencies. For requisitioning NDRF in times of a Disaster, the Zonal Railways / Region have to approach Railway Board who will request NDMA to direct the NDRF battalions to proceed to the site.

X. Requisition of NDRF Services:

There are no charges for availing services of NDRF except Mode of logistics.

Name/ Design of NDRF official	NDRF Bn	Office T/Phone	Telefax	Address
NDRF	5 Bn	2114-247001	02114-247008	5 th Bn NDRF, Sudumbre Taluk Mavel, Pune
Commandant	5 Bn	9423506765		
NDM Control Room		011-23438091	011-23438901	
		011-23438136		
NDMA Control Room #		011-26701728	011-26701729 9868101885	Ministry of Home Affairs
		9868891801		
		011-23093564		
		011-23093566		
MHA Control		011-23093054 011-23093563	011-23093750 011-23092398	Controlroom@ndma.g ov.in
Security Control #		011-23387981	011-23303984	Railway Board
Safety Cell #		011-23043399 9717641291	011-23382638	-do-

Agencies needed to be kept informed in NDRF requisition case.

XI. Requisitioning of Indian Air Force Air crafts / Helicopter by Zonal Railways

Doubts have been raised from time to time by the Zonal Railways regarding standing instructions on the above matter for requisitioning of Indian Air Force Air crafts / helicopter by Zonal Railways in case of serious Railway accidents / natural calamities. The doubt had been cleared by Director / Safety vide Rly Bd's letter No. 2002/ Safety – I/ 6 dtd. 05.12.2016 addressed to all GMs.

The extracts of Air Force instructions No. 9/83 regarding regulations governing flights and Airlifts in IAF aircraft within Indian territory is reproduced as under:

Para 9(a):

The use of IAF aircraft for civil agencies may be authorized by the Chief of the Air Staff on payment at rates which will be fixed by the Ministry of Finance (Defence). Such flights may be provided on written demand for work like aerial photography, survey and other purposes, survey of air routes, carriage of mail, drop of supplies, carriage of urgently required stores, leaflet droppings, relief and reconnaissance flights, carriages of para military police forces etc. **" Such flights as errand of mercy, on payment at chartered rate without detriment to Defence requirements, may also be provided for evacuation of seriously sick or injured civilians from inaccessible areas at the written request of the state governments, Union Territory administration and other Central Ministries / departments as a life saving measures on an undertaking by such authorities that it is neither feasible by them nor any other means of civil air / surface transport is available for such evacuation and the evacuation by the IAF will be at their risk and cost".**

The Ministry of Defence may sanction, on payment, urgent movement of civilian Govt. servants and stores and equipment in IAF aircraft for various Ministries of the Central Government and for the state government provided aircraft are available without prejudice to service requirements.

Para 9(d):

Station Commanders of and above the rank of Wing Commander may authorize special flights of aircraft under their control to meet written request from central ministries / departments / state governments / administration of Union Territories for assistance in any grave emergency or natural catastrophe. They will immediately advise concerned command headquarters. Such flights are to be regularized under the authority of the AOs C-in-C Command / Group in due course.

Attention is also invited to Railway Board letter of even number dated 13/15-06-2004 vide which CMD / RRMs have been delegated powers to requisition helicopter / aeroplane even from private parties to reach the site of serious accident for rescue operation expeditiously and to dispatch the rescue teams to the site of accidents.
Zonal Railways may take note of the above standing instructions and establish coordination with the appropriate Air Force authorities.

*****

Chapter No. 13
GOLDEN HOUR EXERCISE
"Serve safety and safety serves"

I. Disaster Response:

On declaration of disaster / major accident immediate response from all concerned is a must as the first (Golden) hour after an accident is most vital for saving precious human life. For this, quick relay of vital information, evacuation of passengers, first-aid & succour is bare necessary. All Railway men traveling in a train involved in accident should report immediately to the Train Manager (GR 2.11).

II. Golden Hour:

The period immediately after the accident is extremely crucial from the point of view of train protection and taking care of the passengers. This period which makes a vital difference to the well-being of the passengers is the "**Golden Hour**" for relief and rescue operations. This is most critical and important period and even fraction of a minute must not be wasted after an accident takes place. This hour is most useful for saving of lives, take out stranded passengers, render First Aid and call for local doctor. 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 one-hour period is generally known as the Golden Hour. For being effective, any Disaster Management system should aim at recovering as many critical patients as possible and rushing them to hospital within this period.

III. Immediate action by on Board staff and available resources

Indian Railways are fully geared to undertake the work of rescue and relief of passengers and restoration of traffic in the event of an unfortunate accident to a passenger train. However, it may take several hours before the rescue team/SPARM cum MTV is able to reach the site of accident. The Golden Hour relief and rescue must be organized with the resources available in the ill-fated train itself. It calls for careful planning, resourcefulness and prompt action on the part of the Railway personnel who are involved in this task. It is believed that this Golden Hour Relief and Rescue Protocol will go a long way in minimizing the suffering of the passengers by rendering timely assistance to them. This Protocol will enable Railways to expedite the whole process of Relief and Rescue in an organized manner. It is also hoped that these efforts will earn enormous good will for the Railways from the public.

The Conductor-in-charge has been designated as the Golden Hour Rescue and Relief (GHRR) team leader. The TTEs and other employees in the train are to be utilized as detailed below. The GHRR team leader will depute AC attendant to call the TTEs, other Railway employees and volunteers. He gets down from the train and takes up position, preferably with control phone socket. Assistant Loco Pilot gets

down carrying detonators, red flag / lamp and EMC phone set with him. LP provides wooden wedges under the loco wheels.
LP gives further information if any to Train Manager on walkie talkie. If VHF set is available in the locomotive, the LP informs the control about assistance required. He will inform the SM / control on mobile telephone if available. ALP continues the work of protection of the adjacent track if any by placing detonators **as per GR 6.03**. He will then protect his own track by placing the detonators as per procedure. The Train Manager notes down the Km. to observe other details and then proceeds to protect the train from behind on the same track.
The GHRR team leader starts informing rescue and relief teams to the worst affected portion. The AC mechanics help for providing support like first aid box, linen, blanket etc. List of the trained gangs of nearby stations and resources of the nearby villages should be available with all stations. It should be part of the '**Golden Hour'**.

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

1. Render definite medical care to the extent possible preferably by qualified medical practitioners.
2. Stop bleeding and restore Blood Pressure.
3. Persons under shock should be relieved of shock immediately.
4. Transport casualties to the nearest hospital so as to reach within this Golden Hour period.

*****

Chapter No. 14
DISASTER SYNDROME AND ACTIVE GROUPS
"Always alert, accident avert"

I. Response of Victims

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

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

II. Different phases of Disaster Response:

Disaster Response in case of a railway accident consists of 3 phases. These 3 phases are determined both by the time factor, as also by the extent of specialized assistance available.

1. Firstly, it begins with the spontaneous reaction of men available on the train at the time of the accident. The first phase, which is of shortest duration, lasts for about half an hour. It is an amateurish, poorly equipped effort, but is nevertheless the most important phase. In most cases, this is the only help available for a major part of the 'Golden Hour'.
2. Second phase continues with contributions made in rescue and relief work by men and material available locally in nearby areas of the accident site. The second phase which is of 2-3 hrs. duration is comparatively less amateurish and much better equipped. Their contribution is vital since the 'Golden Hour' period comes to an end during the working of this group. How many critically injured passengers can finally be saved depends solely on the efficiency of this group.
3. Third and longest phase consists of meticulously planned action by trained DM teams who arrive at the accident site to carry out rescue and relief operations. The last and final phase of disaster response by Railway's DM team continues for a few days. It comes to an end not only with the restoration of traffic but also with the departure of most relatives and next of kin from the accident site and disposal of all bodies. Few of the grievously injured that continue to be hospitalised for comparatively longer spells are then the sole responsibility of railway's medical department.

With the above scenario in mind, it is necessary to take firm and quick decisions to save lives and property. To achieve these objectives, Railways have a well- defined action plan that is successfully executed by the coordinated efforts of different disciplines all of who function as a team.

III. Active groups during Disaster Response

The three groups which are active during the above mentioned 3 phases of Disaster Response may be classified as

1. Instant Action Team (IAT).
2. First Responders (FR) and
3. Disaster Management Team (DMT).

IV. Instant Action Team (IAT)

1. The Train Manager of the train, Crew, TTEs, AC coach attendants, RPF, Pantry Car staff and other Railway staff on/off duty of the accident involved train.
2. State Police staff travelling on the train on duty.
3. Railway staff travelling by the accident involved train either on duty or on leave as passenger.
4. Doctors travelling by the train.
5. Passengers travelling on the train who volunteer for rescue and relief work.
6. Railway staffs working at site or available near the site of the accident.
7. Non-Railway personnel available at or near the accident site.

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

1. Generally, about 15 minutes time elapses before information regarding occurrence of an accident reaches the control office. In case information can be conveyed immediately this time can be saved. This 15-minute time is of vital importance since it constitutes 25% of the ‘Golden Hour’.
2. In case they have a mobile, ensure that telephone numbers of all relevant officials such as those of regional offices etc. have been permanently fed into the mobile for immediate use in an emergency.
3. These important telephone numbers should cover all those sections where they are required to work their train either within their own region or even those of adjoining regions.
4. Regions will get printed and circulate a DM Telephone Directory containing all such telephone numbers that are likely to be required in an emergency.
5. Whenever they are travelling at night, they should keep a handy torch.

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

1. Site Officer shall immediately collect all Railway staff on train/at site and form separate groups.
2. Passengers travelling by the same train that volunteer for rescue and relief work should also be drafted into these groups.
3. Passengers of accident-involved train should be directed towards unaffected coaches.

4. Passengers from accident-involved coaches can be distributed amongst other unaffected coaches.
5. In the absence of site Officer, TTEs shall take steps to form such groups.
6. In the absence of TTEs, the Train Manager shall take steps to form such groups. 5 or 6 groups should be formed depending on number of coaches involved. Ideally, one group should be formed for handling each coach.
7. In case sufficient numbers of officers are present, then one officer should be made in-charge of each group. Otherwise, Sr. Supervisors travelling by the accident involved train should be nominated as in-charge of each group to co-ordinate it's working.
8. In case sufficient numbers of Sr. Supervisors are also not present, one TTE should be nominated as in-charge of each group to co-ordinate it's working.
9. Each group should rescue injured, entrapped passengers.

VII. Guidelines for On Board Railway Staff immediately after the accident:

1. Don't panic, once the accident has already occurred and the train has come to a stand nothing worse can happen.
2. In case any one of on-board staff have a mobile and it is working, inform the Central control office immediately about the accident.
3. Observe the position in which your coach has stopped, whether it is standing upright or turned upside down or lying on its side.
4. Try and see whether your coach has stopped on a bridge or whether there is level ground on both sides.
5. In case the coach is on a bridge or very high embankment or in case it is raining heavily, then it is better to wait for some time and not be in a hurry to leave the coach.
6. Search your coach with your torch and try to determine the general position.
7. See that passengers don't panic either. Passengers sometimes make things worse for themselves by panicking at this critical moment. Try to calm them and build up their confidence.
8. Ascertain whether passengers are injured or not and whether any of them are trapped or pinned down inside the debris.
9. Call out aloud and find out whether there are any doctors present.
10. Doctors who are travelling in the coach should be asked to announce their presence so that they can attend to and help injured passengers.
11. Call out aloud and find out whether there are any railway staff present.
12. Railway staff travelling in the coach should be asked to announce their presence so that they can attend to and help other passengers.
13. For each coach, form a core team comprising of railway staff available, doctors and 3 or 4 uninjured passengers from the same coach. This core team should take the lead in helping remaining passengers both injured and uninjured.

VIII. Guidelines for members of Instant Action Team – Till arrival of Regional Officers

1. If a person is bleeding and loosing blood, or if he is unconscious, then in that case you have to act quickly. **'Golden Hour'** should be kept in mind. You may have at the most only one hour's time on hand.

2. In such cases, immediately administer First Aid to the injured passenger and try and stop further loss of blood.
3. Persons trained in first aid may do 'Cardio Pulmonary Resuscitation." This may save several lives.
4. If the door is open and is accessible, then uninjured passengers should be helped to come out from the door.
5. In AC coaches the window panes should be broke open in order to let in fresh air for the occupants, and thereafter to evacuate them. Also make use of emergency exit window provided in the coach.
6. Non-AC coaches have one emergency exit window on each side. The position of this emergency window is 5th from the left when facing the line of windows from inside the coach. They are opposite berth Nos. 23 and 57. In case the door is locked and jammed, try and open these windows so that some of the uninjured passengers can come out through the emergency exit.
7. Special care should be taken while evacuating the old, infant and children in order to ensure that they are not separated from their family members.
8. Extrication of critically injured should be done under medical supervision as far as possible.
9. In case medical supervision is not available, then critically injured passengers should be made to lie down on a bed sheet and thereafter taken out by 4 persons holding the four corners. This will ensure that no further injuries take place (Bed sheets will be available in AC coaches)
10. Passengers who are bleeding from open cuts should be tied up with strips of cloth so as to reduce, if not stop the bleeding altogether.
11. It is better not to take out the luggage from inside the coaches at the first instance, for two reasons. Firstly, passengers both injured and uninjured should get preference in this evacuation process. Secondly, it may be safer for the luggage to be left inside where there are fewer chances of their being stolen or pilfered.
12. After passengers have been evacuated from your coach, cross cheek with the reservation chart and against the name of each passenger note down as to whether he / she is injured or not.
13. Building up confidence of injured passengers by suitable advice is of great importance.
14. After helping evacuate all passengers from your coach go over to the unreserved coaches and provide similar help to those passengers also.
15. Railway officials from regional office & Headquarters generally arrive at the site of the accident within 2 to 3 hours depending on the distance of the accident site from the regional Headquarters. Wait for them to come and make further

arrangements.

16. Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalisation. In case some local people have arrived by that time, their help should be taken in shifting the grievously injured to the nearest hospital.
17. In case your train has been involved in an accident but neither has your coach derailed nor any passengers of your coach injured, then you should go to the other affected coaches and carry out the duties as listed above.

IX. Action to be taken by the Instant Action Team – In case of a fire:

1. In case of fire in train, pull the Alarm Chain and stop the train immediately.
2. As soon as the train has stopped, passengers should be evacuated from the coach immediately.
3. Try and put out the fire before it becomes a big blaze by using either fire extinguisher or water or earth or blankets.
4. Finally isolate the affected coaches from other coaches; if the fire is not extinguished.
5. Instruct passengers to go to the other end of the coach, which is away from the fire and if possible cross over to the next coach through the vestibule.
6. Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
7. Make sure that no passenger lies down on the floor.
8. More people die due to suffocation from smoke rather than due to actual burning.
9. Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils.
10. Building up confidence of injured passengers by suitable advice is of great importance.

X. Duties of site Officer– till arrival of Regional Officers:

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

XI. First Responders (FR)

1. **Locating nearby villages**

i. There would be some villages nearby, either visible or out of sight.
ii. In most cases, villagers turn up on their own having heard the sound of the disaster.

iii. Otherwise, try and see if any light or any other signs from the village are visible.
iv. In case none of the above is possible, then speak to either the control office or the nearest station and find out the location of nearby villages.

2. Send messengers (preferably railway staff) to inform villagers and seek their assistance.

3. **Locating the nearest manned level crossing gate**

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

XII. Duties of First Responders – Railway Staff

1. Gang Staff

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

2. Gate man

i. Keep gate closed if the train has not cleared the gate.
ii. On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
iii. Arrange to inform SM immediately.
iv. Don't meddle with Interlocking.
v. Avail services of road vehicles waiting or passing through LC Gate.
vi. Send message to nearby village informing them regarding the accident.
vii. Collect men and material available nearby and direct them to site.

XIII. Organizing assistance from local people available in nearby villages:

1 Villagers should be asked to make an announcement from their loud speaker (generally available in the local temple, mosque, gurudwara, church etc.) informing others regarding the accident.
2 Everybody should be asked to rush to the accident site with Tractor trolleys

(both for transportation as also for general lighting), as many cutting equipment, hammers, chisels etc. as are available, Ropes, Ladders, etc.

3 If doctors or Para-medical staffs are available in the village they should also be sent to the accident site.

4 The messenger should stay back and try and organize opening of a big building (preferably a school) for sheltering of injured passengers and/or preservation of dead bodies.

XIV. Help to seek from Local people:

1 Any road vehicle which arrives should be lined up in a row facing the track with their headlights switched ON for illuminating the accident site.

2 Road vehicle should be so spaced out that they illuminate the entire length of the accident site. Such spacing would also depend on number of tractors that have arrived.

3 Rescue and relief work should now be mounted under the available light.

4 Villagers arriving for rescue and relief work should be formed into separate groups for handling individual coaches.

5 Group leaders of Instant Action Team who were earlier conducting rescue and relief work should co-ordinate with the local people and guide them.

6 Grievously injured passengers extricated from coaches should be sent to the nearest hospitals in tractor trolleys.

7 Passengers who have suffered trivial injuries and uninjured passengers should stay back at accident site and wait for arrival of railways DM team who would take charge of them.

XV. Priority List for sending injured

The following priority should be adhered to while sending such grievously injured passengers:

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

XVI. Tackling of Dead Bodies:

Dead bodies, if extricated should be kept alongside the coach but away from the track for proper tagging etc. before being dispatched for preservation. Bodies should be kept in separate lots, coach wise, so that they do not get mixed up. Tagging of dead bodies should indicate the coach number and also the cabin number, if possible, (For example NCR 98127, cabin number containing berths 9-16).

XVII. Temporary camp at accident spot

A big building, preferably a school building or Railway buildings or vacant quarters should be got vacated and made ready for keeping of unclaimed luggage of passengers with proper security. The stranded passengers also to be accommodated in such buildings. Look after injured passengers who have been taken to the village. Take injured passengers to the nearest hospital by means of any transport available. For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.

XVIII. Database

“The best help is at your wrist end. As such, to provide the optimum scour in train accidents, comprehensive database is required handy for multi programming relief operation. For this purpose, use of Telephone Directory of Disaster Management Plan is solicited which is having important telephone number of Govt.& Non-Government Organizations, help groups of Regions, District & State authorities and adjoining Railways and Railway Board.

*****

Chapter No. 15
DISASTER IN TUNNELS, DEEP CUTTINGS OR IN A WATER BODY
"A little more care means a lot more safety"

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 the Indian Railways which would be mobilized for this job. Help of other stake holders or of NDRF has to be taken for this. However, all the machinery and earth moving equipment available with private agencies shall be requisitioned on war footing basis by Engineering Department to be made available at the earliest.

I. Disaster in Tunnels

There are 91 tunnels on the Konkan Railway with aggregate length of 84.496 Kms. Out of these tunnels 9 are longer than 2 kms. 14 are between 1 & 2 kms. and the 68 are up to 1 km. 7 tunnels which are equipped with ventilation, communication and lighting arrangements. Fire extinguishers are also provided inside tunnel. The important factors which have a direct bearing on the safe operations of the trains inside long tunnels and the detailed guidelines regarding procedure/ action to be taken in case an accident inside the tunnels is summarized in following paragraphs.

Railway Tunnels longer than 2.25 kms. came in operation only with the commissioning of the Konkan Railway System in 1998. Konkan Railway Corporation realized the importance of several issues connected with the safe operation of diesel hauled trains in these long tunnels in the beginning itself. As a sequel to this concern, KRCL appointed M/s. UNITES in Oct'1990 to study the following aspects for train operation in tunnels.

1. Ventilation requirements for passengers and workmen.
2. Adequacy of tunnel cross-section from considerations of passenger evacuation in emergencies and restoration in case of derailments.
3. Track structure and track maintenance.
4. Illumination inside the tunnels.
5. Safety measures and precautions.
6. Communication facilities.

M/s. UNITES submitted final report in Nov.'91. On receipt of this report KRCL approached Railway Board to constitute a working group. KRCL took this action in order to associate the Indian Railways who will be the owners of the KR and therefore the need to conform to their technical and safety standards. On request of KRCL, Railway Board appointed the working group in Jan'92. The working group consisted of ENC(T)KRCL, ED / MTP- Rly. Bd., EDME / RSM-Rly.Bd.,ED / Safety Rly. Bd., Director (B&S) RDSO, One SA Grade Officer from Metro- Calcutta and One CRS to be nominated by the CCRS.

Apart from these, CEE, CME and CE/D of KRCL worked as members of this working group. The CCRS in turn nominated CRS-Central Circle on this Working Group. The

working group submitted its recommendations in June 1992. The recommendations of the working group are implemented in KR tunnels.

II. Safety In Tunnels

The important factors which have a direct bearing on the safe operations of the trains inside long tunnels are enumerated below:

1. Tunnel cross-section
2. Track structure & Maintenance strategy
3. Lighting inside the tunnels
4. Communication
5. Approach roads
6. Firefighting equipment inside the tunnels and in the trains
7. Auxiliary Medical Facilities near the tunnels
8. Self-propelled Accident Relief Medical Van & MFD
9. Road Ambulances
10. Rail Maintenance van (RMVs)
11. Motor Trolleys
12. Ventilation of long tunnels
13. Evacuation and Rescue of passengers
14. Alarm Chain Pulling
15. Stalling of trains inside the tunnels
16. Application of Dynamic Brakes
17. Instructions to Drivers / Guards and other staff
18. Train Examination
19. Additional provisions in the Subsidiary Rules

III. Strategies for implementation on the safety factors

i. Tunnel Cross-section

Typical tunnel cross section is adopted on the Konkan Railway. Footpaths on both the sides is provided in tunnels longer than 1 km. For other tunnels footpaths are provided on one side only. The adequacy of the tunnel cross-section has been discussed in detail. It was concluded that the cross-section adopted on the Konkan Railway is adequate.

ii. Track Structure & Maintenance strategy

The subject matter of Track-structure was also discussed by the Working Group. Based on the recommendations KRCL made efforts to adopt Japanese Design of Slab Track (BLT) inside the long tunnels in the remaining tunnels conventional ballasted track with PSC mono block Concrete sleepers is provided. As tunnels longer than 500 m are illuminated, maintenance operations inside these tunnels with the help of a track Tie-Tamping machines will not pose any problems. Due to adequate illumination, it will not be difficult for the maintenance gang, Track Safety Man and Patrol man to work inside these tunnels.

iii. Lighting Systems and Ventilation arrangements in Tunnels.

Depending on length of a tunnel, emergency lighting arrangements may be provided to give immediate assistance in handling a disaster. KRCL had decided to adopt the following scheme for providing adequate illumination inside the 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 rooms in case of a mishap. In case a train stalls in long tunnel due to derailment/fire or any unusual condition, automatically alarm will be sounded in the control room to alert the Ventilation Operator / Controller or if Train Manager / 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.

i. Tunnels longer than 500 m up to and including 1000m - 24-watt LED lamps are provided at 12-13m interval along one side of the tunnel. Switching ON & OFF to be facilitated by switches provided at both the tunnel portals The lights will be switched ON by the working parties / TSMs whenever required.
ii. Tunnels longer than 1000 m. – 25-watt LED lamps at the interval of 12-13m are provided. Lights at every 100m shall be placed on the opposite wall. Lights provided in trolley refuges where telephone sockets are installed.
iii. For the long tunnels where forced ventilation system is installed viz. Natuwadi, Parchuri, Karbude, Tike, Berdewadi, Barcem, Karwar, the lighting scheme shall be as per (2) above. However, the controlling of lights will be done through the Ventilation Control Room. The operator will switch ON or switch OFF the light in a particular segment as per the request received from the working parties or TSM or train crew of immobilized train in the tunnel.
iv. Whenever colour light signals are inside the tunnels, for a length of 200 m ahead of the signal fluorescent light is provided.
v. In all tunnels where lights are being provided, addl. single-phase power plugs will be provided at 100 m interval. These will be useful to flood lit the area in case of emergencies or during major maintenance operations inside these tunnels.
vi. In Natuwadi, Parchuri, Karbude, Tike, Berdewadi, Barcem & Karwar tunnels three-phase power supply sockets are being provided at 100 m interval. These can be used to draw power to operate electrical equipment up to a rating of 7 HP (for operating Hydraulic Power Packs, Cutting and Drilling equipment etc.). This will come in handy in case of emergencies inside these tunnels.
vii. Power supply for the above systems will be drawn from the substations near the tunnel portals in case of tunnels where such substations have been provided for construction purpose or for forced ventilation schemes.
viii. Tower wagon shall be utilized to maintain the electric fittings inside the tunnels.

iv. Communication

The Working Group had considered the arrangement of providing telephone sockets at 500 m interval inside the tunnels as a satisfactory arrangement. However, KRCL has further refined the arrangements and these are brought out below:

i. In the long tunnels where forced ventilation systems are installed, the telephone sockets connecting the Central Control are being provided at 400 m interval. Apart from these, sockets are being provided to communicate with the Ventilation Control at 400 m interval. These sockets will also come in handy for the LP and Train Manager to communicate with each other in case of stopping of the train inside the tunnel. This will mean availability of communication circuits; the train crew will be able to contact the Central Control. The sockets for communication with Central Control & Ventilation Control will be red & blue coloured respectively.

ii. In addition, Light weight, ruggedised and wall-mounted Analog Help Point Telephones with handset are provided in the 7 Longer Tunnels (Nathuwadi, Parchuri, Karbube, Tike, Berdewadi, Barcem & Karwar) along with Retro reflective signage boards at a interval of 1.0 Km (approximate) to facilitate Hot line voice communication with the Station Master at adjacent stations during emergencies apart from existing emergency communication arrangement in tunnel. These telephones serve as additional communication method for Loco Pilots, Train Managers, Maintenance staff and Others.

iii. In other tunnels telephone sockets are being provided at an interval of 400 m. Apart from the above for tunnels longer than 1 km it will be ensured that telephone sockets are available near the tunnel portals on both the sides.

v. Approach Roads

The approach roads will facilitate access of road-borne rescue parties and equipment to the tunnels to deal with emergencies. All tunnels' approaches shall be maintained to attend the emergencies.

vi. Firefighting Equipment

The objective world over is more to minimize the damage to human life and property. As a precaution to avoid a train on fire either entering a tunnel or stopping inside the tunnel. It is proposed to install a special track-side indicator board W/T short of tunnels longer than 800 m in length. On observing this indicator, Loco Pilot will give a long continuous whistle and as a response to this the Asst. Loco Pilot and the Train Manager will keep a sharp look-out to detect any fire or unsafe feature on the train. If fire is noticed anywhere on the train, the Asst. Loco Pilot will alert the Loco pilot. The Loco Pilot shall sound frequent short whistles to alert the staff on the track side as well as in the train of the apprehension of the danger. The loco pilot shall stop the train if possible before entering the tunnel. If it is not possible to stop the train before entering the tunnel the loco pilot will make all efforts to go through the tunnel and then stop the train out in the open. In short stoppage of a 'train on fire' inside any tunnel shall be avoided. For the firefighting on the train, the tunnels and the trains are provided with requisite equipment's.

i. **Equipment Inside the Tunnels**

In all the tunnels longer than 1km, every alternate trolley refuge (200 m interval) will be equipped with two Nos. of four kg. fire extinguishers clearly marked with paint on the tunnel walls. The locations of these fire extinguishers will be got periodically checked and refilled as per the manufacturer's specifications. In case of tunnels with forced ventilation, telephone sockets are provided near the Halon gas fire extinguishers to communicate with the ventilation control room. In tunnels with forced ventilation additional ruggedised and wall-mounted Analog Help Point Telephones with handset are provided.

ii. **On board the Trains**

Running trains will be provided with fire extinguishers to the following scale:

a. Each locomotive
b. Each brake vans
c. First class coaches
d. AC coaches

e. Pantry car
f. Generator Van
g. M.E.M.U.s
h. Insp. Carriages:

Loco Pilot / Train Manager / Asst. Loco Pilot / Passenger Assts. / Coach Attendants/ Ventilation Controllers/ SMs of stations shall be trained in the usage of the fire-extinguishers kept in the tunnel as well as in the trains. Their proficiency in this will be tested during Refresher Course of the all concerned.

vii. Auxiliary medical facilities in the vicinity of tunnels

In the nearest stations of 9 Long Tunnels, an imprest of medical equipment and medicines as per POMKA scale shall be maintained.

viii. Self-Propelled Accident Relief Medical cum MFD Tool Van

KRCL has made available two Self-propelled ARM Cum MFD Tool Van one each at Ratnagiri and another at Verna. The inspection, maintenance and operation of these vans shall be under the Breakdown organization under the overall control of Mechanical Department. The Medical part of the equipment shall be periodically checked by the nominated medical officer. The schedule of inspections of these vans shall be the same as for breakdown trains.

ix. Road Ambulances

There is no road ambulance stationed at any of KR stations except one at Ratnagiri station. These will be inspected and maintained by Medical Officers at the respective locations. Apart from these nearby ambulances of location shall be called on emergency. Phone numbers of nearby hospitals and ambulances are displayed at all stations for easy access on emergency.

IV. Ventilation of long tunnels.

Nine (09) long tunnels have been ventilated. Whenever forced ventilation schemes are adopted, the control panels have been designed to display various parameters as well as to facilitate operation of fans, lights, and communications on the part of the controller by pushing the buttons on these panels. The position of the train inside these tunnels will be indicated on the mimic panel by acquiring the data from the track circuits installed. The Ventilation Controllers have been posted for: -

1 Operation of Fan whenever the threshold limit of any of the predefined parameter is crossed,
2 Ensure that all the fans are in working condition,
3 In case of emergencies to keep in touch with the site and the Central Control etc.

V. Evacuation and Rescue of passengers

It is being ensured by plying vestibuled rakes over Konkan Railway. Rly. Board has been advised to ensure that only fully vestibuled trains are allowed to ply on the Konkan Railway. It is ensured that the vestibules are maintained in order and the rolling shutters between the coaches are kept OPEN during the train's journey on the Konkan Railway.

1 In case of fire on a coach/coaches and train coming to a halt inside a tunnel

i. The Passenger Assistants shall immediately evacuate the passengers to the adjacent coaches through the vestibules. The TTEs of adjacent coaches shall commence the operation of putting off the fire simultaneously. After complete evacuation, the rolling shutters of coaches on fire to be closed to contain the spread of fire.

ii. After the train comes to a halt, the LP / ALP and Train Manager will immediately intimate the Central Control/ Ventilation Controller/ adjacent stations through the communication system. ALP/ Train Manager shall press the trigger for fire alarm installed near the firefighting equipment placed in the trolley refuges in case of tunnels where forced ventilation is being implemented.

iii. On receipt of this information, the Central Control shall inform the SMs of the adjacent stations to inform the local fire brigades and hospitals consulting them to render necessary assistance.

iv. The ventilation controller shall not operate the fans as this may lead to stoking of fire. Operation of fans shall be resorted to only after consulting the Central Control.

v. After that they shall detach the rear part of the train (behind the coach on fire) and pull the train ahead - if possible, the front part of the train shall be taken out of the tunnel. They shall put on the lights inside the tunnel (In case of tunnels with forced ventilation, this will be done by the Ventilation Controller).

vi. Following this they will detach the coaches on fire and move the front portion further ahead clear of the zone of fire.

vii. The ALP and Train Manager shall protect the train.

viii. In the mean while the Coach Attendants / Train Superintendent / TTE shall continue the firefighting operation and rescue any entrapped / injured passengers.

ix. The passengers in the rear portion of the train left in the tunnel shall be evacuated via the nearest portal (The indications for which will be available on the tunnel walls.)

x. In case it is not possible to pull out the front portion of the train from inside the tunnel and/or detach the rear part of the train, the passengers in the rear portion should be evacuated through the portal towards the rear and those in the front portion through the portal towards the front.

xi. The Central Control on receipt of the information shall immediately alert the adjacent stations, SPARM cum MTV, RMV, Ambulances and issue instructions for their movement towards the site.

xii. The Medical Officers in-charge of the SPARM cum MTV / Ambulance shall move to the site along with the Ambulances or SPARM cum MTV. They shall carry with them paramedical staff.

xiii. The Central Control shall clear the adjacent yards of any stabled loads or trains to facilitate receipt and dispatch of relief trains. The Control shall also arrange one additional loco on either side expeditiously to facilitate pulling out of the parts of the affected train.

xiv. Station Masters of adjacent stations shall immediately alert local hospitals and request for doctors and ambulances. They shall also request help from the local fire brigades.

2 Derailments inside a tunnel:

In case of derailment of passenger carrying train inside the tunnel, procedure identical to the above shall be implemented. In the tunnels where forced ventilation systems are installed, the Ventilation Controller will be guided by the Train Manager as to which side fans shall be operated to control the flow of air in such a way that the smoke of Diesel loco travels away from the stranded passengers. On noticing of a derailment, the train shall be stopped. After the train is brought to a halt, the LP /ALP/ Train Manager shall inform the SM/ Central Control / Ventilation Control (wherever available) of the incidence and other details and call for relief & rescue arrangement. LP /ALP/ Train Manager shall provide illumination by operating switches provided inside the tunnel or through ventilation Control (wherever available). After obtaining permission from the Guard, the unaffected front portion shall be uncoupled and drawn ahead of the tunnel. TS /TTE shall assist in evacuating passengers to the front or the rear and transshipped to the unaffected coaches and first aid rendered to the injured.

3 Fire on a train coming to a halt outside a tunnel:

In such cases, the same drill as in (a) above shall apply. The only difference being evacuation of passengers from the tunnel which is an arduous task which will not be necessary.

VI. Alarm Chain Pulling

LP get the indication of Alarm Chain pulling after 11 to 30 seconds. LPs will therefore be instructed that on getting such indication to sound the prescribed Whistle Code (2 short and one Long) and make all efforts to pull the entire train out of the tunnel. On Air-braked trains application of brakes on pulling of chain is much lighter, LP will therefore be instructed to keep a watch on the air-flow meter and pressure gauge and whenever a drop is noticed give the prescribed Whistle Code and stop the train only outside the tunnel.

VII. Stalling of Train inside a tunnel

In case the LP is unable to haul the train, the train should be brought to a halt outside the tunnel, the train protected and help sought by contacting the Central Control. If the train stalls inside the tunnel, under no circumstances the loco pilot shall resort to repeated and sudden notching up as this will cause excessive emission of smoke. In such instances the loco pilot and Train Manager shall secure the train and protect it and thereafter switch on the tunnel lights and contact the Central Control/Ventilation Control and seek necessary assistance. In case of a passenger carrying train, the

staff shall explain the situation to the passengers and avoid panic. Evacuation of passengers shall be decided only after consulting the Central Control.

VIII. Application of Dynamic Brakes

Application of dynamic brakes generates heavy smoke emissions. Loco pilots during the 'Learning of the Road' shall be explained this phenomenon and directed not to make use of dynamic brakes inside the tunnels.

IX. Sign boards inside tunnels.

Schematic representation of various signs (exit, light, fire extinguisher, phone socket) to be painted on tunnel walls with luminous paint for clear indication of the railway servants and passengers.

X. Instructions to LP / ALP

1. Ensure that personal and loco equipment are complete.
2. Avail of complete and adequate rest before joining the duty.
3. Be conversant with speed restrictions in force and go through Safety Circulars before taking over charge.
4. Examine the loco for road worthiness.
5. Ensure Sanding gears, wipers are in working order.
6. Note that application of Rheostatic brakes is not permitted inside tunnels longer than 800 m.
7. Check the brake power for effective control of the train.
8. Check and ensure that headlights, flasher lights & marker lights are focused and burn brightly. Carry spare bulbs for emergency use.
9. Exchange all right signals with station staff and Guard to assure yourselves that the train is following complete and in a safe manner.
10. In case of failure to use loco whistle while approaching/passing through the station. The train will be treated as "Run Away Train" and action taken.
11. Use engine whistle while approaching "W/T" Engineering indicator board.
12. Indicator erected to intimate that the train is approaching long tunnel. Look back to ensure that the train is running in a safe and proper manner exchange all right signal with Guard.
13. Be alert on the run, keep the engine headlight & marker lights burning during night, foggy or tempestuous weather and while entering and passing through tunnels.
14. Never detach the loco from the formation in the block section without permission of the Train manager and unless the load is secured by pinning of hand brakes to avoid rolling of load.

XI. Cases of Train Stalling inside tunnel and instructions there on:

1. Passenger Train:

- **i.** Train shall be stopped as far as possible outside the tunnel portal. Inform Train Manager, protect the train from front and rear and secure the train from rolling by applying hand brakes.
- **ii.** Call for necessary assistance from station through Section Controller and Tunnel Ventilation Controller (wherever available).
- **iii.** Inform the passengers about the stalling to avoid any panic.

iv. Ensure illumination of tunnel wherever lights are provided by operating switches provided in the tunnel or advising Tunnel Ventilation Control (wherever available) & operation of ventilation system (wherever available).

v. In case the train cannot be pulled out of the tunnel, the loco shall be shut down only after the train is secured by applying the brakes and protected in front and rear and Central Control informed of relief arrangements.

2. Goods Trains:

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

XII. Fire in Train

1. If fire is noticed in a train, all efforts be made to stop the train before entering the tunnel, failing which the train should run through the tunnel and then stopped out in the open.
2. Coach attendants should make efforts to extinguish fire with the help of fire extinguishers available in the coaches and evacuate the passengers through the vestibules to the adjacent coaches.
3. First aid should be rendered to the injured passengers.
4. On complete evacuation of coach/coaches on fire, the rolling shutters in the vestibule should be closed to avoid spread of fire to adjacent coaches. After the train is brought to halt, LP/ALP / Train Manager shall inform the Central Control / Ventilation Control (wherever available) of the incidence and other details.
5. Ensure tunnel illumination (wherever provided) by operating the switches available in the tunnel or through Tunnel Ventilation Control (wherever available).
6. The portion of the train behind the vehicle which is on "Fire" must be detached, front portion drawn ahead to a safe distance, the vehicle on Fire detached and the front portion drawn ahead to a safe distance.
7. Extinguish the fire by use of fire extinguishers available on the train.
8. Evacuate passengers away from the source of fire to a safer place, after evacuation of passengers from affected coach.

XIII. Fire in Locomotive

I. The train shall be stopped clear of tunnel, the loco shall be shut down and fire extinguished with fire extinguishers available in the loco, Assistance / Relief loco should be called for through Central Control/Station Masters at either end. The train should be secured by applying the hand brakes and protected from front and rear and Passenger counseled to be patient.

II. In case of longer duration of fire in the locomotive in the tunnel and unable to clear the tunnel:

III. Provide illumination by operating switches provided inside the tunnels or through the Ventilation Control (wherever available).

IV. Assistance, Relief Engine called for through Central Control/Tunnel Ventilation Control (wherever available).

V. The loco should be shut down only after effectively securing the formation.

VI. Passengers evacuated from the rear of the train to a safer place.

VII. The fire extinguished with fire extinguishers available in the train / in the tunnel. Station Masters at either end informed of fire.

NOTE: Fire extinguishers have been provided in train loco, front / rear SLRs of passenger train, First Class coaches, AC coaches, Sleeper coaches, Generator vans, Pantry car, Inspection carriages, Trolley refuge in tunnels longer than 1 Km., TTMs, etc., for emergency use.

i. Alarm chain pulling

a. A slight drop in pressure gauge, deflection in air flow indicator will be noticed. Driver should draw the train ahead and stop clear of the tunnel as far as possible.

b. ALP shall assist the Train Manager in restoring the Alarm chain disc.

c. Reason for alarm chain-pulling will be ascertained from the passengers of affected coach for action.

ii. Rail Disasters in a Lake or River.

The Railways neither has the equipment (cranes operated from barges) nor trained manpower to extricate bodies from a train or coaches fallen down from a bridge on to a water body, viz. Lake or river or sea. Help of the NDRF has to be taken in such a situation.

*****

Chapter No. 16
FIRE DISASTER MANAGEMENT
"No Safety, Know Pain. Know Safety No Pain"

In case of fire in train prompt action is required to shift entrapped passengers through vestibules & emergency exits and extinguish the fire by all possible means. Fire extinguishers are provided in Locos, SLRs, Pantry Cars, AC Coaches, Sleeper coaches etc. Preferably train on fire should be stopped out of tunnel, cuttings and fixed structures wherein access is restricted and ahead of forest & dense localities.

Fire is a Chemical reaction between combustible material, oxygen in presence of heat to catch fire in any place these three ingredients are must. Hence to extinguish fire, we have to separate at least one ingredient from the vicinity of fire.

There are three basic principles of extinguishing fire:

1. Cooling Method: Spraying water over the vicinity of fire – heat is separated from site; hence fire will extinguish.
2. Smothering or Blanketing method: Covering a Gunny bag or thick bed sheet with affected item – supply of Oxygen is blocked to the vicinity; hence fire will extinguish.
3. Starvation method: Any one or more item caught fire, remaining item from the vicinity may be shifted to safe distance – Further non availability of any item fire will extinguish.

But depending upon the material involved in the fire, further fire classified into five classes:

Class	Material involved in fire	Appropriate Fire extinguisher
A	Wood, Paper, Cloth	Water, DCP, Foam
B	Inflammable articles: petrol, diesel, Kerosene oil.	Foam, DCP, CO2
C	Any Gas involved in fire	DCP
D	Metal Fire	Special Type DCP – Containing with Barium powder
E	Electric Fire	DCP, CO2

I. **Three stages in Fire Accidents**

i. Fire Prevention – "Prevention is better than cure". To prevent, first it requires to identify the Fire prone areas in our working or residential area, and to take sufficient care on this area, so that 99% of fire accidents can be avoided.

ii. Fire First Aid – This can be done if we are identifying the fire in initial stage – To tackle such cases, 06 fire buckets and two fire extinguishers are supplied in each and every depot & station.

iii. Firefighting – Through Fire Brigade only, since they are trained and well equipped to tackle any major fire. - "101" is fire Control number but every fire station is having

separate land line and we are supposed to know it. Fire Brigade is free service for three service: - 1. Firefighting, 2. Dwelling in water, 3. Rescue operation from any disaster.

II. **Liquified Petroleum Gas (LPG)**

LPG is 1.5 times heavier than air. Hence leaked LPG will not evaporate so easily, it will stack in surrounding area which even we can't see. In fact, initially LPG was not having any smell also, smelling agents are added in the process of mixing Butane and Prophane gas. LPG will turn from gaseous form to liquid form with pressure of 1:260 ratio – it means 260 cm3 gas will compress to 1 cm3.

Hence, any leaked LPG caught fire, naturally gas with high force and this force will not allow to fire inside the wagon. But fire will continue by eating leaked gas. In such situation instead of extinguishing fire, priority to be given to arrest the leakage. Assistance may be taken from Fire Brigade & LPG Control – they are having experts to arrest the leakage. Up-to the arrival of rescue team, affected Wagon required to be isolated from the formation and to be placed as far as possible in remote area of that particular station and if it is at mid-section action same may be taken treating as fire accidents in any other train. If any Water facility nearby – it may be sprayed over wagon to keep the temperature in control. But all rescue operation should be carried out by standing at the center of the bullet on either side since if at all in any extreme situation bullet will blast from end.

LPG Control with Rapid Action Plan and is situated at various places to reach within 150 KM radius: -

Fire and emergency	101
Mangalore	0824-2270832 / 09448274836
Hubli	0836-2225393 / 0836-2240789
Margao	0832-2714600
Helpline	18002333-555
Round the clock helpline	1906

III. **Prevention of Fire**

1. Provision of various types of fire Extinguishers in Brake Vans, Locos, RMS Vans, Dining Cars, AC coaches, Inspection Carriages, Stations & other nominated places.
2. Ensure proper marshaling order of dangerous goods wagons
3. Proper handling of dangerous goods consignments while loading in brake vans.

Do's:

i. Training of Front-line staff on Fire Fighting.
ii. Try to extinguish the fire by possible means & ventilate.
iii. On ACP, Isolate the rolling stock ablaze from intact one by decoupling both Mechanical & Electric couplers.
iv. Remove Fuses from battery boxes, turn off appliances.

v. Clear off Tunnel and Bridges if possible.
vi. Save life of Passengers, RMS on priority.
vii. Alarm/warn about outbreak of fire & call for help. Send SOS.

DON'Ts:

i. Allow illegal traffic of dangerous goods
ii. Pass ODC disregarding potential infringements with fire catalysts.
iii. Allow Fire Extinguisher to expire, discharge and hoses to soil up, or block or be out of order.
iv. Use water to extinguish Electrical / Oil fire.
v. Hesitate in extending personal assistance to crew/passengers or requesting fire tenders from nearest centers.
vi. Stop afire in restricted passages like tunnels, bridges & forests or in stations out of course.
vii. Forget to intimate the incidence immediately to nearest SM & the Central Control.
viii. Bring naked light near the tank wagons.
ix. Get nervous.

IV. Location of Fire Extinguisher

A. Railway Station & Maintenance Depot.
B. Trolley refuge in tunnels having length of more than 1 kms.
C. Ventilation Control Rooms.
D. In trains: In all Locomotives, Generator Car, pantry car, All SLR of Passenger / Express Trains & All AC compartments.

V. Causes of Fire on train

a. Carrying Inflammable goods
b. Electrical short circuit
c. Malpractices like throwing ignited butts of Smoking sticks & Spillage of liquor consumed on run, Stoving etc.
d. Blasts of Pantry Gas Cylinders
e. Loose/Fly shunting of Red Tariff goods
f. Sealing of inflammable wagons with naked flames
g. Infringement of ODC with electrical cables.
h. Running Hot boxed vehicles
i. Keeping Explosives along with combustible material
j. Sabotage / Discrepancy

VI. Important Safety Measures

1. If crew notices fire on other train passing by, they shall switch on Flasher Light, whistle continuously & both shall exhibit Red Hand signal to attract attention of Crew

of affected train failing which, they must stop their train next station & report to SM in writing.

2. Ask nearest Fire Brigade if fire is serious.

3. In serious case, remove the patient quickly to hospital as the injured may require an anaesthetic, Medical soothing.

4. Ordinarily give nothing ORALLY to injured one, but if Medical Treatment is delayed more than 4 hours, give ORS drinks preferably bi-carbonated soda.

5. Keep sand dry, water buckets filled at all vulnerable locations.

VII. **Preventing Fire in Luggage Vans**

Railway Board issued guidelines for preventing fire in Luggage Vans vide Rly. Bd. letter No.2004/ TC9FM)/11/14 Dtd.21.04.2009, FREIGHT MARKETING Circular No. 10/2009. The salient instructions are:

i. Adequate space must be left between roof and the top layer of the packages loaded in the SLRs to avoid contact with the ceiling and electric lamps. The private parties and lease holders must ensure the same. Provision to this effect may also be made in the agreement in case of leasing contracts. Parcel staff shall ensure that adequate space has been left.

ii. After completion of loading, lights provided in the luggage portion of the Brake Van (SLR) must be switched off to eliminate possibility of short circuiting. Train Manager must ensure that all the lamps in the luggage compartment / portion of the SLR are switched off.

iii. The Train Manager and the parcel staff responsible for loading / unloading of packages in SLRs should exercise proper supervision to avoid any hazardous situation, also ensure proper locking of the luggage portion of the SLRs.

iv. Rules contained in Para Nos. 505 and 506 of the IRCA, Coaching Tariff No.25, Part I (Vol-I) regarding booking of explosive, dangerous, inflammable articles, empty gas cylinders, dry grass and leaves, waste paper, acid, corrosive substances enumerated in Red Tariff must not be booked as luggage by passenger trains. Dangerous articles such as explosives of any variety including fireworks, inflammable materials such as oil, grease, ghee, paint, dry grass and leaves of any variety, waste papers, acids and other corrosive substances are prohibited to be carried by any person in the compartment.

v. Rules regarding booking and carriage of any type of explosives and inflammable materials such as LPG cylinders, Kerosene stoves, etc. other than those required for security purposes or by the armed forces, by any passenger carrying train must be strictly enforced.

vi. While loading / unloading of parcels in the brake van (SLRs) / parcel van (VP), smoking and lightening of cigarettes / bidi is strictly prohibited. Parcel staff responsible for loading / unloading of parcels will ensure strict compliance

vii. Maintenance of electrical devices in the passenger coaches and parcel vans may be carried out adequately as per laid down norms.

viii. The desired norms for the quality of wiring used in electric junction boxes may be ensured to avoid chances of fire due to electrical short-circuiting.

ix. Random checks against carriage of inflammable / explosive materials by Inspecting official.

VIII. **Material factors Causing Fire on Train**

1. Carrying inflammable articles stoves, sigris, gas cylinders, kerosene oil, petrol, fireworks etc. in passenger compartments/coaches.
2. Making/using fire near paper, wood, petrol or such other inflammable articles.
3. Throwing waste material outside the dustbin, near door, non-removal of garbage from dust bins of pantry car/coaches.
4. Wrong -closing of gas regulators (Pantry Car), flame arresters and pressure gauge after use lead to leakages in pantry car gas cylinders and pipe lines.
5. Bad habits like careless throwing of lighted match sticks, cigarette butts, Bidi butts etc.
6. Improper storage of inflammable materials like newspapers, edible oil etc. in pantry cars.
7. Throwing of cigarette/Bidi butts, Gutkha pouch etc. in fan base, fuse distribution boards, roof openings.
8. Sabotage.
9. Mishandling/Careless use of pantry electrical equipment by pantry car staff.
10. Poor maintenance of electrical equipment and short circuits.
11. Loose or temporary connections, hanging wires/exposed joints etc.
12. Defects in locomotive wiring and overheating causing fire.
13. Use of open fire, smoking near trains containing gas/petrol tank wagons at the road side stations.
14. Shunting of inflammable loads, sealing of inflammable wagons/SLRs/VPUs.
15. All railway staff and passengers should take all possible precautions to avoid any of the above mistakes so that possibility of fire breaking out can be minimized.

IX. **Instant Action Team to respond to Fire Hazards**

1. Loco pilot, Asst loco pilot, Guard
2. All TTEs, AC Coach Attendants/AC Mechanics
3. Pantry car staff (railway and/or contractor)
4. On Board House Keeping (OBHS) staff (Railway /contractual)
5. TXR staff present in train.
6. RPF/GRP staff.
7. Railway employees either on duty or on leave as passengers travelling in the fire affected train.
8. Doctors travelling by train.
9. Passengers travelling in the train who volunteer for rescue and relief work.
10. Railway staff working at site or available nearby the site of the fire incident or at stations if fire affected train is controlled in station yard.

X. **Action to be taken in case of Fire on Train in general**-

1. First and foremost, immediately stop the train by pulling the chain.
2. Summon the firefighting equipment available in the train.

3. If any passenger smells gas or vapour, or even in case of excessive smoke, should hold a wet cloth loosely over nose, mouth and breath through it in as normal a manner as possible.
4. In the event of a vehicle on a running train catching fire the train should be stopped by passing quick communication to loco pilot/guard to stop the train.
5. Immediately the on-board staff should pull the alarm chain.
6. AC mechanic/electrical staff will turn off electrical appliances. In case of fire from electricity, switch off the sources of electricity.
7. The hammer should be taken out by breaking the glass panes of the hammer box and the window glass of AC coaches should be broken so that fresh air can come inside & the smoke out of fire can go outside & the passengers can also get out of the coaches along with their belongings.
8. Make all efforts to segregate the coaches/wagons with a distance of not less than 45 mts. by hand shunting by taking the help of all available railway men and passengers.
9. Loco pilot will put flasher light of loco “ON” to attract the attention of the loco pilot of passing train on other direction to stop his train & ask for assistance in segregating the coaches/wagons already caught fire.
10. Start evacuating the affected coach(es) by leaving the personal belongings as More people expire due to suffocation from smoke rather than due to actual burning.
11. Try and put out the fire before it becomes a big blaze by using either water or blankets etc.
12. Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects
13. Report it to the nearest station/control/fire station (Fire services: 101 & disaster help line: 138) Civil police, RPF Control post etc for sending assistance by informing on mobile.
14. Initiate action for closing the rolling shutters of coaches near the vestibules on fire to contain the spread of fire.
15. Instruct elderly passengers including women and children to go to the other adjacent coach(es) which are unaffected from the fire and if possible cross over to the next coach through the vestibule.
16. Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
17. Locate the fire extinguishing substances viz. fire extinguishers, water buckets. Use water from coaches.
18. Try to find out the source of the fire and use the available fire extinguishers before it becomes a big blaze.
19. Make use of blankets in case some passenger has been affected by fire and try to smoother the effect & arrange to send him/her to the nearest hospital as and when the ambulance arrives.
20. All efforts should be made to put off the fire in the affected coaches and saving of important parcel/ luggage in case of fire in SLR should be resorted to.
21. Advice them not to get panic.

22. Ascertain the type of fire (viz. dry, all gaseous & electric) and use the available fire extinguishers in coaches, pantry cars, Power cars, guard van and locomotives.
23. Train to be protected by Loco Pilot and guard at both ends according to the provision of G&SR 6.03
24. In case of fire caused by petrol or other inflammable liquids, acids or gas don't bring naked lights near the site of fire, warn the people living in the surrounding area within 1km radius and inform the nearest fire stations that the fire has been caused by petrol/acids/gas. In case of fire due to explosives/inflammables/dangerous goods follow the below mentioned instructions.
25. 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:

i. Move cool cylinders to a safe place after ensuring closing of valves.
ii. Cool the hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.
iii. If cylinder containing inflammable/toxic gas develops leak during transportation, remove it to an isolated open place away from any source of ignition and advise the filler or consigner as required.

XI. Role of Crew (Loco Pilot/Assistant Loco-Pilot, Guard)

1. Stop the train immediately and switch on the flasher light after observing fire or on receiving intimation about fire. Arrange to stop the train coming from other direction so as to pool the help to tackle fire.
2. Loco Pilot & Guard will immediately inform the control directly by EFT / mobile telephone or talking to nearest Station Master on walkie-talkie about the incident of fire and preliminary details about the fire.
3. Guard and Loco pilot will protect their train as per provisions of GR & SR, secure the train to prevent rolling down and protection of adjacent line, if any
4. Guard of the train to arrange the stretcher and first-aid box for providing assistance to the injured passengers.
5. Guard and Loco pilot will make use of the unlocking keys made available to them by Carriage & Wagon depot for unlocking the LHB couplers in the affected train and arrange for isolating the affected coaches from other coaches by decoupling both Mechanical & Electrical couplers and hand shunting by taking help of passengers & railway staff travelling in the train. In this endeavor, coach attendants and OBHS staff will also assist, who are also provided the keys.
6. Report it to the nearest station/control/fire station, Civil police, RPF/GRP through mobile telephone.
7. Provide anti rolling arrangements on the isolated coaches and train as well by taking help of railway staff travelling in train & passengers.
8. Render first aid to injured passengers, by obtaining assistance of the railway staff, doctors and/ or volunteers on the help of Ambulance service, means available.

9. Advise passengers to remain calm and not panic and also instruct not to venture onto adjacent line while detraining from the coach as to avoid run over by train coming from opposite track.
10. Use of available fire extinguishers, sand, loose earth, water, blankets etc. to extinguish the fire & help the passengers trapped in fire and also to arrest big blaze.
11. In case of fire in Freight train, that train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line after establishing communication with the nearest station & section controller.
12. The guard of the train should lodge an FIR, if required.
13. The guard and the loco pilot shall make initiative for extinguishing the fire from the nearby tank or water columns at stations while the train caught fire each nearer to tank or water hydrants at watering stations.
14. The loco pilot shall immediately switch off the circuit breaker and load the pantograph in the event of fire on electric engine.

XII. **Role of Train TTEs:**

1. Observe any alarm or buzzer from smoke detectors provided in AC coaches. In case, heard any buzzer from smoke detectors, try to find out the smoke or fire from where it coming.
2. Use fire extinguishers available in coaches to extinguish the fire or use water available in coaches.
3. If fire is not in control, then try to stop the train by pulling alarm chain.
4. Report to the Commercial control immediately & also dial 101 to call fire service people by giving the location as Km No. & Train No. Also call 138 Help Line to arrange rescue & relief on war footing.
5. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules, if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed with the help of available railway man & passengers to contain the spread of fire.
6. Call the doctor after checking the charts & advise him about the passengers affected by fire.
7. Kindly take the help of other railway staff including RPF and GRP and Smartian passengers to help the doctor in providing first aid and other aid to the affected passengers.
8. Arrange the stretcher and first-aid box for the injured passengers.
9. Insist that passengers should save themselves first and not to bother about their valuables/luggage which can be retrieved later on.
10. Locate the fire extinguisher viz, fire extinguishers, water buckets. Use water from the coaches.
11. Take assistance of volunteers from passengers, Railway employees travelling doctors on trains, on train board contractor staff etc. in rescue operation.
12. Advise passengers to take a cloth wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.

XIII. **Role of AC Coach Maintenance Staff**:

1. Immediately isolate the affected coach/coaches electrically.
2. Use fire extinguisher to extinguish fire to the extent possible.
3. AC attendant should break the box & take out the hammer to break the glass panes of AC coaches so that fresh air can come inside & the smoke out of fire can go outside.
4. Help in taking out the old, women & children passengers trapped due to fire.
5. Take necessary action as a man of common prudence will take not only to help stranded passenger but also to arrange such helps as would be demanded by circumstances.

XIV. **Role of Pantry Car Staff**:

1. Immediately isolate the electric appliances electrically & close cooking gas appliances in the Pantry car.
2. Protect the inflammable material available & take out the cooking gas appliances in the Pantry car out in open.
3. Use the fire extinguishers available at pantry & provide necessary assistance to TTE as directed.

XV. **Duties of Power Car Staff**:

1. Use fire extinguishers and fire balls provided in engine room in case of fire in power car to extinguish the fire.
2. In case fire is not controlled, they will try to stop the train by pulling alarm chain and try to detach the power car in consultation with crew and guard and taking help of Railway men and fellow passengers.

XVI. **Role of On-Board Housekeeping Staff & TXR**:

1. Open the doors of both sides of coaches.
2. Open the emergency windows & exhort the passengers to vacate the coaches immediately so that the effect of the smoke of fire can be minimized.
3. Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules, if the fire is not extinguished. After complete evacuation the rolling shutters of coaches on fire to be closed to contain the spread of fire.
4. Provide necessary assistance to TTE, Guard & other train staff as directed.

XVII. **Role of RPF/GRP**:

i. The escorting RPF & GRP should pull the alarm chain in order to stop the train.

ii. They will rush to the affected coach/coaches of the train immediately and will assist the TTE/ Guard in extinguishing the fire and follow up action.

iii. The affected coaches will be evacuated on top priority & first aid will be provided to the affected passengers.

iv. In case the Doctor is available, necessary assistance will be provided to ease the working of doctor.

v. Protection of the properties/belongings of affected coaches/passengers as per as possible.

vi. Separate the area of incident by establishing temporary barriers by using rope and ensure that the onlookers and spectators do not enter the affected area to disturb the scene or hamper the rescue operations.

vii. RPF & GRP personnel should respond to any call for assistance to rescue the passengers and escort them to the nearest hospital on arrival of Ambulance.

viii. Check, save and record the evidences/clues of the fire while attending the affected coaches & talk to passengers of those coaches as first information about the fire is possible from them.

ix. And help the Guard in the lodging of FIR.

XVIII. **Other Relevant Responders**

1. Station master
2. Controller/Other Controllers
3. Dy. CHC/CHC
4. SSE/SE/JE(Electrical)

1 Role of Station Master

i. On getting the information of fire, ASM will inform Section Controller & TPC about the fire in train.

ii. In case of passenger train/coaches on fire, local fire brigades are to be promptly requisitioned.

iii. All officers/supervisors of various departments available at the station to be informed.

iv. Local Hospitals as per list available at Station will be contacted for sending Ambulances/Doctors along with Para-medical staff promptly.

v. Do not permit any train on the adjacent track till the fire is extinguished & clearance is given by the officer in charge at site.

vi. In case of fire in Freight train, that train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line in consultation with section controller.

2 Role of Section Controller/Other Controllers

i. Will immediately inform the TPC on duty. TPC will switch off OHE and will charge only after clearance from the site.

ii. Order out SPARM cum MFD TV in case of fire reported on passenger carrying train without waiting for further details.

iii. In case of fire in Freight train, that train will be controlled immediately and brought to the nearest station/yard in the loop line in consultation with Dy. CHC/CHC.

3 Role of Dy.CHC/CHC

i. Promptly inform All concerned immediately.

ii. Inform Chief controller to inform & fire brigade & Health Units / MOs.

iii. Inform Chief Controller to order SPARM cum MFD TV immediately.

iv. Promptly inform Engineering, Power, Commercial, Security, TRD Controllers.

v. In case of fire to a passenger carrying train, civil authorities should be promptly advised.

vi. In case of fire in Freight train, that train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line. Fire tenders will be called. On advice of the fire officer, OHE of required line will be switched off by taking local power block/traffic block as the case may be & fire will be extinguished.

vii. Fill the pro-forma about the accident as circulated by the Railway Board and advise all concerned.

4 SSE/SE/JE(Electrical)

I. Organise maximum number of men to go to the accident sit along with their equipment and proceed by quickest available means to the accident site.

II. Direct all the staff to assist in rescue and relief work as directed by site in-charge

XIX. **Tips For Fire Responders when a person is On Fire**

1. Approach him holding the nearest available wrap in front of you.
2. Wrap it round him.
3. Lay him flat and smother the flames.
4. He may roll on the floor, smothering the flames.
5. On no account, he should run into open air.
6. Call for assistance of Doctors.

XX. **Handling of Injured Passengers**

1. Building up confidence of injured passengers by constantly talking to him.
2. First aid should be rendered to the injured passengers by trained staff.
3. On arrival of Ambulance & medical assistance, shift the injured passengers quickly to hospital.

XXI. **In the event of Fire on an Electric Engine/EMU**

1. Loco Pilot/ Motorman shall immediately switch off the circuit and lower the pantograph. The train shall then be brought to a stop at once.
2. After disconnecting the electric supply to affected circuits, Loco Pilot/Motorman shall take necessary action to put out the fire.
3. If fire cannot be extinguished by the above means Loco Pilot shall advice TPC through emergency telephone to switch off the OHE power of the affected section.
4. The Guard and any other staff available shall render all possible assistance to the Loco Pilot in putting out the fire.
5. Ordinary fire extinguishers or water from a hose pipe shall not be used to extinguish fire on live wire or electrical equipment.
6. If services of fire brigade are required, fire brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire have been made dead/switch off.

XXII. **In the event of a Fire on a Diesel Engine/DMU stock**

1. The Loco Pilot/Motorman shall immediately switch off the circuit breaker and shut down the engine. The train shall be brought to stop at once.
2. The Guard shall give all possible assistance to the Loco Pilot in putting out the fire.
3. Fire extinguishers available shall be used till arrival of fire brigade.

XXIII. **Fire caused by Petrol or other inflammable Liquids, Acids or Gases**

1. Segregate the affected wagon, or area involved.
2. On opening a wagon do not enter it immediately. You would thus, avoid fumes, which may be dangerous.
3. Use foam type fire extinguishers, sand and not water or soda acid type fire extinguishers.
4. Do not bring naked lights near the site of fire.
5. Warn people living in the surrounding areas within one kilometer radius.
6. Stay away from ends of tanks, as tanks normally burst from the ends.
7. Cool tanks that are exposed to flames spraying water from the sides only after the fire is put out.
8. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
9. Inform the nearest Fire Stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases.
10. Inform Explosive Inspector and teams of HPCL/IOCL/BPLCL.
11. Inform Civil Police to cordon of the area for safety of public.

XXIV. **In case of Fire due to Explosives/Inflammables/Dangerous Goods**

1. Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
2. Following steps may be taken if no undue risk is involved.
3. Move unheated cylinders to a safe place after ensuring closing of valves.
4. 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.
5. If cylinder containing inflammable/toxic gas develops leak during transportation, remove it to an isolated open place away from any source of ignition and advise the filler or consignor as required.
6. Inform the Chief Controller of Explosives by fax/telephone/mobile.
7. Inform Officer in charge of nearest police station.
8. Inform departmental Officers concerned.
9. Pending the visit of the Chief Controller of Explosives/his representative, the wreckage and debris shall be left undisturbed/cordoned off except to save lives.
10. After getting information from the Chief Controller of Explosives that he does not wish to have any further investigation, the restoration work may be commenced.

XXV. **Fire Fighting (Type)**

1. Dry chemical powder type fire extinguisher (DCP)
2. These types are suitable for tackling petroleum, gas, electrical fire and controlling fires of textile, fibers. Sodium based chemical powder is to be used on a fire which undergo chemical reaction.

How to Use

a. Carry to the place of fire and keep it up right.
b. Remove the safety clip.
c. Tilt up to 60 degrees towards fire & strike the knob located in the cap.
d. Sealing disc of the cartridge gets broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.
e. Direct the stem of the powder at the base of the flame.
f. Move forward with moving the nozzle rapidly from side to side in sweeping motion.
g. When using on outdoor fires operate from the up-wind side for effective spray.

XXVI. **Suspicious substance in Railway premises**

i. Clear and isolate the contaminated area. Do not touch or disturb anything.
ii. Call Police/Fire service/Bomb squad.
iii. Wash your hands with soap and water.
iv. Identify individuals who may have been exposed to the material.
v. Do not leave premises until disposed off by authorities.

Always Remember
"Fire is a Good Servant, but a Bad Master - Prevent Fire"

*****

Chapter No. 17
OTHER DISASTERS MANAGEMENT
(CHEMICAL, CYCLONE, TSUNAMI, FLOOD, LANDSLIDE, EARTHQUAKE)

"Safety starts with you, Work safely"

A. CHEMICAL

I. Preamble:

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 then on rescue and relief operations after wards.

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 etc.), 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 and different zonal railways need to prepare guidelines themselves based on the type and extent of hazardous material being handled and transported by them.

II. Classification of dangerous goods.

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

1. Explosives
2. Gases, Compressed, liquefied or dissolved under pressure
3. Petroleum & other inflammable liquids
4. Inflammable solids
5. Oxidizing substance
6. Poisonous (Toxic Substances)
7. Radio-active substances
8. Acids & other Corrosives.

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

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

III. **Class-II (Gases, Compressed, Liquefied or Dissolved Under Pressure)**

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

1. Dissolved Gases: Acetylene (compressed into porous substances)

2. Compressed Gases:

i. Air compressed
ii. Argon
iii. Coal gas
iv. Hydrogen
v. Methane
vi. Neon
vii. Nitrogen
viii. Oxygen
ix. Sulphur Hexafluoride

3. Liquified Gases

i. Ammonia (Anhydrous)
ii. Chlorine
iii. Liquified petroleum Gas (Commercial Butane or Propane)
iv. Carbon dioxide (Carbonic Acid Gas)
v. Cyclopropane Gas
vi. Ethyl Chloride
vii. Freon, Arcton or Genetron
viii. Hydro-cyanic Acid
ix. Medical Mixtures (Oxygen & CO2, Oxygen & Helium mixture)
x. Methyl Bromide
xi. Methyl Chlorine (Chloromethane)
xii. Nitrous oxide
xiii. Sulphur Dioxide toxic (Sulphureous Acid Gas)
xiv. Liquid Air
xv. Liquid oxygen
xvi. Liquid Nitrogen
xvii. Liquid Helium

IV. **General Rules**

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

1. 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 liters.

2. Marking & labeling of Cylinders or Containers**.**

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

3. Storage (Refer Rule No.211 of Red Tariff No.20); Following points must be ensured during storage

i. This wall cylinders such as liquefied petroleum gas cylinders and dissolved gas cylinders shall not be stacked in a horizontal position.

ii. Cylinders containing flammable gases other shall be kept away from cylinders containing other type of gases.

iii. Cylinders shall not be stored along with any combustible material.

4. 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.

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

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

iii. Additional Rules: Exceptional or additional rules regarding packing, marking & labeling, carriage by Goods/Mixed/Parcel train and stowage & carriage rules have been specified in table II, chapter II of Red Tariff No.20. Characteristic property of gas & pictorial level indicating main characteristics of the gas is also indicated in column 23 & column 3 of table II.

V. **Class-III; Petroleum & other inflammable liquids**

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

1 Class A: - Petroleum & other inflammable liquids, the vapour of which having flash point below 23Degree Celsius.

2 Class B: - Petroleum & other inflammable liquids, the vapour of which having flash point above 23 degrees Celsius but below 65 degrees Celsius.

3 Class C: - Petroleum & other inflammable liquids, the vapour of which having flash point at 65 degrees Celsius.

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 & acceptance of petroleum & other inflammable liquids have been detailed in rules 302,303,304,305 & 306 of Red Tariff No.20.

VI. **Packing, Marking & Labeling**

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

1. Storage

Time of Loading & unloading: All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset. Provided that consignments to be sent in brake-vans of passenger, mixed or parcel trains and by trans-ship 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 firefighting facilities as determined by Chief Controller of Explosives, have been made available at the place of loading and unloading.

2. Prohibition of smoking, fires etc.

Petroleum & other inflammable liquid must not be stored or handled near explosives and other dangerous goods. Smoking causing fire or naked light matches or other articles of inflammable nature are 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.

3. Transportation subject to the provisions of Rules (i) and (ii):

i. Petroleum & other inflammable liquids class 'A' shall be transported by goods trains only.
ii. Petroleum and other inflammable liquids, Class 'B' & 'C' may be transported in wagons by all trains except passenger trains.

4. Rule (i) Petroleum and other inflammable liquids, class 'A' may be transported in wagons by a mixed or parcels train 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 parcels train.

5. 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:

i. The total quantity in the brake-van of any one train at any one time shall not exceed 50 liters.
ii. 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.
iii. Packages containing petroleum and other inflammable liquids shall be carried only in the rear brake-van which shall be well ventilated.
iv. 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.

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

7. 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. percent in the case of some important items like: High speed diesel oil, Furnace oil, Kerosene oil and Aviation Turbine fuel
   b. 4 percent in the case of some important items like Aviation spirit, Petrol and Naphtha

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.

VII. **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 & rendering them free from vapour, be kept securely closed unless they have already been thoroughly cleaned and rendered free from vapour.

Stowing in wagons, labeling, sealing and locking; Guidelines regarding stowing, labeling, sealing & locking of wagons have been discussed in rules 322 & 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 & other inflammable liquids are stored for dispatch or delivery of while in transit.

The rules for shunting, Marshalling and delivery of consignments have been discussed in Chapter III of red Tariff No.20. Any additional or exceptional rules

applicable for any specific item regarding packing, marking & labeling carriage by Goods Train, carriage in brake van of Passenger, mixed or parcel train and stowage & carriage rules have been discussed in detail in table-III, Chapter III or Red Tariff No.20.

VIII. **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 dispatch to be given by sender, rules 802,803,804,805 & 806 of Red Tariff No.20 may be referred.

1. Packing, marking and Labeling:

Although, acids and other corrosives are to be packed by consignor but 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" with name of the acid or corrosive. Labeling of package must be done as per rule 808, 809 & 810 of Red Tariff No.20.

2. Handling and Storage

i. 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. Packages containing acids and other corrosives not be thrown, dropped down or dragged along with ground of floor and care should be taken to avoid striking them against any hard object.
iii. 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 damages to the drums or casks and to prevent leakages
iv. Whenever practicable, packages containing acids and other corrosives shall be carried or conveyed on trolley or hand borrows.
v. Acids and other corrosives not to be stored or handled with or near explosives or other dangerous goods or articles of inflammable nature.
vi. Acids and other corrosives not to be stored or handled with or near foodstuffs or foodstuffs empties
vii. 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 therefrom.

3. Transportation:

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

4. Conveyance in tank wagons:

Tank wagons used for the conveyance of acids and other corrosives shall be of a design approved by the Chief Controller of explosives. Precautions to be taken while loading tank wagons are.

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

5. Storing in wagons:
   i. Packages containing acids and other corrosives should be compactly loading 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 the another as may be practicable.
   iii. Drums containing acids and other corrosives shall as far as possible, be loaded on end.
   iv. Bottle, 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.
6. Labeling, 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 dispatch or delivery or while in transit.
7. 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: -
   i. The speed of all movements does not exceed 8 KMPH
   ii. No rough hump, fly or loose shunting takes place.
   Any additional or exceptional rules applicable for any specific items regarding Packing, marking & labeling, Carriage etc. have been discussed in details in table VIII, Chapter VIII of Red tariff No.20.
8. Stationary storage of dangerous Goods:
   Some of the dangerous goods like HSD oil, lubricants etc. are also stored by the Railways for their own consumption in diesel loco sheds, RDIs at stations, store depots etc. These places of storage of dangerous goods must have sufficient firefighting equipment 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.

9. Rescue Relief and Restoration Operations:

Railway's expertise in dealing with the mis-happenings like spillage, catching fire. etc. of these dangerous goods is very limited. It is therefore imperative that the respective zonal railways will develop and nurture coordination with those agencies and organization 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 regional and zonal railway disaster management plan so that these agencies can be called for without any delay during any untoward incident. However, not to mention the least nominated staff of ARMVs, ARTs and few of the staff maintaining the rolling stock which is used for transportation of hazardous material may be trained and equipped with the equipment used for dealing with such material in the eventualities.

B. CYCLONE MANAGEMENT

I. General Instructions:

Ensuring of adequate inventory of necessary stores and equipment as per the check list and their working conditions.

Pre-cyclone co-ordination meeting by the Engg. Dept. in Region involving representatives from state Govt., NDRF, SDRAF Fire service Organization etc. to assess the preparedness, roles & responsibilities to address the situations.

Alerting of community volunteers / NGOs as first responders for assisting during cyclone.

List of items/ Railway properties which are prone to damage of all departments to be prepared for early removal or to cover/protect before cyclone and to be placed at safe place and safe custody.

All Rail vehicle (RMV, Tower Wagons etc) / road vehicles including jeeps, cars, light & heavy material carrying vehicles shall be kept in readiness at the nominated Stations/Regional offices with adequate fuel & with drivers to move men/materials/equipment at minimum notice.

LC Gate booms should be lowered and secured during cyclone / heavy wind to avoid damages.

All Staff & their family members to be advised to remain indoor during cyclone and also COVID 19 protocols to be followed.

1. Engineering:

The engineering material as stacked at various site should be cross checked for its physical availability in full. The fitness of vehicles on which the materials have been loaded ‘on wheel’ should be obtained. Apart from this, the following action needs to be taken – Based on the anticipated severity and warnings, the modalities for movement of materials should be planned.

The firms/owners having heavy earth moving machineries should be contacted, alerted and asked to be in readiness to provide the machineries to the Railway. Movement of such machine including loading and unloading arrangements should be planned in consultation with the Operating Department.

Adequate water storage shall be ensured.

2. Electrical Department

Check working of DG sets, stock position of fuel oil, K-Oil, position of light fittings, working of solar system and other materials so as to ensure that they are available in working condition at nominated depots.

OHE should be switched off when the wind speed is very high in consultation with Section Controller.

3. Mechanical Department

   The fitness of rolling stock for transportation of drinking water as well as those of ART, /SPARM cum MFD TVs should be checked and ensured

4. S & T Department

   a) Check that VHF/Walkie - Talkie sets provided at each station are functioning properly & battery in fully charged.
   b) Check that emergency generator set is functioning properly with adequate fuel.
   c) Check that fuel supply tanks of the generator sets have been fully filled and adequate fuel for 72 hrs has been stocked.
   d) Telecom channels via alternative routes should be lined up and kept terminated for Administrative trunks and control working.
   e) Satellite phones provided in ART & ARM cum MFD TVs should be tested and accompanying staff identified along with battery charging arrangement.
   f) Communication equipment in ART & ARM cum MFD TVs should be tested for proper working order.
   g) Check all the Block Instruments and their Batteries.
   h) Working of Anemometers should be ensured.

5. Action by Control Office:

   At Control Office who is the recipient of the weather warning message will arrange to rely the same to the concerned Officers at CO as well as Regional Officers for prompt action at field level.

   Dy. Controller / Section Controller should immediately arrange to rely the message to all SMs of likely to affected stations for further necessary action.

6. Stores Department

   The Stores Department to be in readiness for supply of emergency items as per requirement.

7. Medical Department

   Medical Department to be in readiness for any emergency.

8. Commercial Department

   Commercial Department should be in readiness to open the Enquiry offices/Help lines at important stations with public address system and information about running of trains, also arrangements Catering, transshipment of passengers, etc if needed.

   Cash should be made available at important stations in short notice.

9. Security

   The Security personnel to be in readiness for rendering assistance at important stations.

10. Operating

    SM should ensure the vehicle / wagon / coaches at stations to be secured.

C. TSUNAMI MANAGEMENT

I. Tsunami risk:

The tsunami risk and vulnerability which the coastal communities in India are exposed to, even by a distant high intensity earthquake in Indonesia, came as a shock and surprise to the unsuspecting public.

Most Tsunamis are caused by earthquakes of magnitude more than 6.5 on the Richter scale, with a vertical disruption of the water column generally caused by a vertical tectonic displacement of the sea bottom along a zone of fracture in the earth's crust which underlies or borders the ocean floor. Tsunamis are also generated by volcanic eruptions and submarine landslides, nuclear explosions, and even due to impact or fall of large size meteorites, asteroids, and comets from outer space.

Tsunamigenic zones that threaten the Indian Coast have been identified by considering the historical tsunamis, earthquakes, their magnitudes, location of the area relative to a fault, and also by tsunami modeling. Both the east and west coasts of India and the island regions are likely to be affected by tsunamis from the five potential source regions, viz., the Andaman-Nicobar-Sumatra Island arc, Indo-Burmese zone, Nascent Boundary (in the central Indian Ocean), Chicago's archipelago and the Makran subduction zone.

The DM Act 2005 envisaged a paradigm shift in the GOI's focus from its hitherto post disaster rescue, relief and rehabilitation-centric approach to a more proactive pre-disaster preparedness, mitigation and improved response capacities approach. This paradigm shift is also influenced by global best practices, which have established that strengthening preparedness and mitigation strategies would considerably reduce the vulnerability of disaster-prone communities and thereby reduce the risks associated with tsunamis in the coastal areas.

II. Action on Orange/Red Alert:

1. 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:
2. Mobilisation of Gangmen / Trackman
3. Hospitals to mobilize Doctors and Para-medical staff.
4. Civil Defence units to be activated.
5. RPF and RPSF deployment.
6. Scouts and Guides for colony care and passenger guidance.
7. Operation and manning of the disaster control room.
8. Coordination amongst various stake holders through advance warnings.
9. Communication system to be ensured and backups to be in readiness for immediate use when required.

III. Monitoring/Reporting of Effects of Disaster:

The Safety Dte. /Department in the Board would be given information regarding Orange / Red Alerts by Zonal Railway. On the declaration of an incident as a Disaster by a State Government or District Administrator or even by the Railway, 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 to the Safety Department.

IV. Standard Operating Procedure (SOP) on Railways:

National Disasters:

The Civil Engineering Department at the field level and on the Regions 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 /crises/ calamity expected the information would be passed on to the Regional Officers through the Emergency Control which will act as the Immediate Response System.

Where train operations have to be suspended or regulated the operating departments would be suitably advised. After making the train regulation plan the control would advise the commercial and security departments for management of the welfare of passengers. Alerts to the passengers would be issued through the PR Department of the Railway in the Print and Electronic Media.

The RRMs on the Regions shall ensure coordination amongst the Departments for ensuring running of train services (including relief special trains) as also relief arrangements for the passengers and for the Welfare of Railways own staff. Coordination with the IOC of MHA and NDMA / NDRF would be through the Emergency Control of Headquarter.

D. FLOOD MANAGEMENT

I. Scope

Flood is the most common and widespread of all natural disasters. India is one of the highly flood prone countries in the world. Around 40 million hectares of land in India is prone to flood as per National Flood Commission report.

II. Effect of Flood

Damage to embankment including breaches / wash away of embankments thereby affecting Railway track.

Rain due to sudden cloud burst resulting in flooding of the Railway track causing sinkage or washing away of track, damaging track components which affect the level and alignment of Railway line and consequently affect the safety of traveling public and disruption to traffic and communication.

Washing-away or damage bridges, piers, abutment and other components of bridges. Inundate the Railway colonies at low levels.

III. Action taken before flood:

1. Co -ordination with Meteorological Department for advance information.
2. Data base for (Railway Affecting Tank) RAT / (Railway Affecting Works) RAW / Vulnerable bridges on topo sheet and information on approach road to location.
3. Identification, Inspection and Attention to RAT / RAW & Bridges.
4. Co-ordination with state Government officials of Dam over phone/mobile/hot line/satellite phones.
5. Flood monitoring system in addition to patrolling.

6. Adequate prevention by executing anti erosion works of tracks, formations, bridges etc., improvement to water ways of bridges in track formation, and with Monsoon Reserve.
7. Materials required for flood prevention /management like Empty Cement Bags, sands, boulder etc are stocked and also the sources from where they can be arranged at short notice in case of dire necessity is clearly identified with all details.
8. Development of flood shelters for staffs and passengers at suitable locations in the area prone to repeated floods.
9. Emergency response team on floods.
10. Emergency equipment and relief logistics.
11. Medical preparedness plan.

IV. Pre-Flood Preparation:

Pre-Monsoon Precautions issued time to time shall be followed.

V. Activities during Flood:

Opening of Emergency Control Room at HQ and Region to be managed by Operating & Engineering Departments round the clock in shifts.

First priority, during flood, is to protect the traveling passengers in the train passing through/ near the affected zone. Whenever incident of flood occurs in any Railway area the respective RRM of the Region should immediately take charge of the situation and take all steps to bring under control. He should pass orders to the different departments to take necessary relief and rescue measures for the passengers of the affected train(s).

Local Law and order authorities may be kept in touch as in flood affected Zone as the local public may sometimes take shelter on embankments making movement of train(s) difficult. Adequate RPF patrolling staff along with Engineering staff with PA systems may be kept in readiness for the purpose.

Railways are empowered to requisition help from nearest NDRF battalions through HQ as per DMAct 2005 for relief and rescue of the passengers in the situation when a passenger train is washed away partly / fully by flood or the train is stranded in the section due to washing away of track, where boats and divers are essential.

VI. Restoration:

It shall be the duties of respective department to co-ordinate in restoration activity.

E. Surviving a LANDSLIDE

Before Landslide:

i. Grow more trees that can hold Soil Together.
ii. Listen to Radio / TV, Newspaper & Weather Apps for any alerts.
iii. Keep drains clean, Keep holes open.
iv. Watch out for any warning signs such as subsidence of building, cracks on rocks, muddy river water.

During Landslide:

i. Stay calm, DO NOT panic, ignore rumors.
ii. Stay together -with your companions.
iii. If you notice any warning signs such as unusual sounds like trees cracking or boulders knocking together.

iv. Inform nearest Tehsil / District HQ.

After Landslide:

i. DO NOT Touch / Walk over loose material and electrical Wires or poles.
ii. Move away from landslip path and downstream valley quickly
iii. Do not move an Injured person without rendering first aid unless he/she is in immediate danger.
iv. Check for Injured and Trapped person.

F. Surviving an EARTHQUAKE:

Before Earthquake:

i. Consult a structural engineer to make your house earthquake resistance.
ii. Repair deep plaster cracks on walls and ceilings.
iii. Fasten shelves securely to walls, place heavy/large objects on lower shelves.
iv. Have an emergency kit ready.
v. Develop an emergency communication plan for family.

During Earthquake:

i. Stay calm do not panic.
ii. DROP under a table, cover your head with one hand and HOLD the table till tremors last.
iii. Run outside as soon as tremors stop – DO NOT use lift.
iv. When outside move away from buildings, trees, walls and poles.
v. When inside a vehicle – pull over in an open place and remain inside, avoid bridges.

After Earthquake:

i. Avoid entering damaged building.
ii. If trapped in rubbles:
-Do not light a matchstick.
-Cover your mouth with cloth.
-Tap on a pipe or wall.
- Sound a whistle.
-Shout only as a last resort.
iii. Use stairs and NOT lifts or elevators.

G. Pandemic & Epidemic Management:

If any situation or disease is declared as Pandemic or Epidemic, the guidelines issued by appropriate Government should be strictly followed, efforts should also be made to educate people about various safety norms and personal hygiene during this period**.**

*****

Chapter No. 18
STRENGTHS AND WEAKNESSES OF THE RAILWAYS
"Hope for the best, be prepared for the worst"

I. Strengths of the Railways to handle a Disaster

Indian Railways occupies a position of strength having a variety of internal resources to tackle serious accidents:

1. Communication network.
2. Operating Control linked to each Station.
3. Territorial Army Units.
4. Uniformed force of RPF / GRPF
5. Civil Defence Organization
6. An army of Track maintainers spread over the entire network.
7. Well-equipped ARTs / SPARM cum MFDTVs at different locations with trained and dedicated staff.
8. Railways own Hospitals /Health Units at different locations.

II. Railway's weaknesses to handle Disaster

The areas of weaknesses in the Railways that cause a serious handicap in handling a disaster are-:

1. Absence of tunnel cutting equipment – in case of collapse of a rail tunnel.
2. Non-availability of trained divers for extrication of passengers and / or casualties (dead bodies and drowning / drowned passengers) from a train fallen down in the river / lake etc.
3. Non-availability of cranes operated from a ship / barge for lifting of the coaches / bogies from a water body etc.

III. Role of Railways in the event Aircraft in Distress (Ref: Rly Bd's letter No. 2003/ Safety (DM)/ 6/ 3 dtd. 08.01.2016)

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

In the event the aircraft in distress falls on or near Railway lines or infringes Railway tracks, Railway control shall speedily transmit the information relating to the aircraft to Rescue Co-ordination Centre for appropriate action.

Railway Controls when requested by the Rescue Co-ordination Centre of alerting post to assist in locating a missing aircraft shall direct all stations and staff in the vicinity of the area to be alert & on lookout. Contact details of Aerodromes of Mumbai, Goa and Mangaluru are as below:

Sl. No.	**Aerodromes**	**Operator/ in-charge**	**Telephone number /E-mail Address**				
			STD Code	**Office**	**Mobile**	**Fax**	
1	Mumbai	IVC(AAI/MIAL) WSO(ATC)	022	26156400 26819332 26156500 26329112 26329130 26828088	9821442603	26828066	gargmanoj17@ rediffmail. com
2	Goa	INDIAN NAVY AAI APD	0832	2540806 2538456 2541835	9823196393	2541610	apdgoa@aai.aero
3	Mangaluru	AAI APD ATC	0824	2220400 2220410	9448125412	2254175	apd_mangalore @ aai.aero

*****

Chapter No. 19
Crowd Control and Management
"Disaster Management knowledge is key to survival"

Crowd Management

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

Crowd Control

Often at an accident site or at stations during festivals or on account of some special events / announcement there is a huge crowd. The Management of Crowd under such circumstances is a challenging task.

For effectiveness in this, RPF, GRP and District Police have to act in a synchronized manner in consultation with Civil Authorities, Sections 148 to 151 of the BNSS 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. Normally 3 to 4 per persons per sq. mtr. Is a manageable crowd. Any increase in size or number should be monitored as it enables 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.

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

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

We should prescribe preventive protocols, when laid down footfalls defined separately for important stations become extraordinarily high, as during Melas or other exceptional situations. It may not be out of place to ban all commercial vending and parcel handling on such occasions, supplement exists if possible, and bring more area under illumination.

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

Specific defined areas of jurisdiction for crowd control and duties assigned to GRP/RPF and the city Police needs to be placed on record much before the expected days of rush. Close coordination has to be maintained between the 3 wings of Police/Protection Force RPF and Civil Police, GRP and RPF) and areas of responsibilities well defined.

The car and other vehicle parking facility at a station where a terrorist strike is expected may be discontinued; sale of Platform Tickets can also be banned for short period of time. RPF and GRP personnel deployed on each platform will monitor crowds and rush build up in the circulating areas, booking windows, station platforms and mainly on the FoBs. Special teams of commercial staff will liase with the RPF/GRP and relay 2/4 hourly position to a centralized location viz. commercial control who will advise the need for running of special trains to specified destination to the operating departments control room.

*****

Chapter No. 20
Crisis Management Plan in total Blackout
"If you fail to prepare, you to fail"

Crisis Management Plan (CMP) of Konkan Railway`

I. KRCL's, 738.94 Km route extends from Roha (excluding over Central Railway) to Thokur (including). The section is double line between Roha to Veer (46.885 km) and between MAO – MJO (10.541 km) The route has 3 interchange points i.e., at Roha with Central Railway, MAO & MJO with South Western Railway and Thokur with Southern Railway. These are also the exit points from KR route to hinterland.

II. A few salient features of KRCL route are as under:

- **i.** Tunnel 91 nos. (Total length 84.496 KM, longest 6.5 KM)
- **ii.** Bridges (Major 190 nos the longest being 2.065 KM over Sharavati River)
- **iii.** Deepest cutting is of 50 Mtrs. & Total length in cutting is 223.786 KM)
- **iv.** KRCL became 100% electrified route in June 2022 and since then, the operation has been switched to electric traction.

Operational Details:

- **i.** There are 68 Crossing Stations (2 lines 23, 3 lines 29, more than 3 lines 16 and 4 Halt stations.
- **ii.** The average block section length is 11 KM.
- **iii.** On an average 50 Passenger trains & 18 Goods trains runs per day.

Mechanical establishment:

- **i.** There are no Loco sheds over KRCL territory.
- **ii.** KRCL has 3 diesel locomotives on owning basis. 1 loco (WDG3) is nominated for RN region, 1 loco (WDG3) is nominated for KWAR region & 1 loco (WDS6) is nominated for ART/ Shunting at VEN.
- **iii.** In addition to above, 1 Diesel loco (usually WDG4) available at HPCT siding TOK
- **iv.** There are 3 RCDs i.e., at CHI, RN & MAO. Out of which CHI is being closed. RCD at RN (40KL) & MAO (710 KL).
- **v.** At CHI minor attention to rolling stock can be done. There is primary and secondary maintenance depot at MAO.
- **vi.** There are 02 major Lobbies at RN (Goods and Passenger) & MAO (Passenger) and at VEN & SL (Goods)

S&T Installation:

- **i.** All Stations on KRCL are provided with Integrated power supply (IPS) having battery backup for all Signaling gears.
- **ii.** All Stations are provided with Diesel Generator set as alternate power supply arrangements in case of failure of SEB / AT supply.
- **iii.** All Telecommunication Gears are provided with UPS supply
- **iv.** All important Communication circuits Viz Control Communication (VOIP based), FOIS, COIS SCADA, PRS UTS are working on IP Based MPLS network with redundant path from RCIL/ BSNL.

Alternate Energy Source:

i. There is 350 KWp capacity Solar power plant at RN. Similarly, 180 KWp capacity solar plant is installed at MAO station. The roof top solar plant catering to day time load have been provided at KHED, CHI, KKW, KUDL, SWV, THVM, KRMI and UD stations which can meet the demand of the station and supply excess power to state grid.
ii. At every station Genset is available which can be utilized in emergencies.

Restoration of Traffic after accidents / derailment in OHE section:

In such a given scenario, available diesel locomotives on the system shall be utilized for restoration and relief works. The order of relief will be as follows:

i. Clearance of Trains stranded inside long tunnels, deep cuttings and high bridges.
ii. Passenger carrying trains as per category of the train

Major yards can have diesel locos which can be used in inferior services and for normal running of trains:

1. Konkan Railway already have 2 diesel locomotives on owning basis which can be utilized for inferior services and for normal running of trains as and when required.
2. Relief Loco will also be sought from adjoining zonal railways for the clearance of stranded trains.

Type of diesel locos required and section-wise requirement of diesel crew:

- In addition to diesel locomotive already available on KRCL and in the vicinity of TOK yard, KRCL would require 4 locos (WDG4) which would be nominated 2 each for RN & KAWR region such that overall KRCL territory would have 1 diesel locomotive for approximately 100 kms.
- The crew being utilized for electric locomotives can also be utilized for diesel movement by verifying competency certificate for diesel traction.

In case of disaster like complete black out:

- In case of total black out for power generation, Generators available at stations shall be utilized. Provisions of G&SR in case of Total communication failure shall be followed.
- Constant liaison shall be maintained with State Electricity Boards and Power Grids for restoration.

Strategic importance:

- Over Konkan Railway Route Project Seabird, a Naval base is location of strategic importance and the proposed power plant at Jaitapur near RN would be another location of strategic importance.

For fueling it should not move more than 250km and for minor schedules it should not move more than 500km.

- Under the present circumstances the RCD is available at RN which is at a distance of 280 kms from fueling points towards north i.e., at Panvel (C. Rly) & at a distance of 239 kms at MAO towards south. From MAO the next fueling point shall be at MAJN (S. Rly) which is at a distance of 312 kms.

******

Chapter No. 21
APPROACH ROADS OVER KR ROUTES

"Prepare, Prevent, Protect"

It is essential to know the road approaches available over KR route as it will be critically important and facilitating rescue team to reach the site of accident by quickest mode. Road approach will play a vital role during emergencies. Konkan Railway alignment is almost parallel to National Highway 66 (Mumbai – Kochi) and crosses the National Highway at number of locations along the western ghats. State highways, district roads and village roads are crossing the Railway track by the way of Road Over Bridges (ROBs), Road Under Bridges (RUBs) and level crossings. The approach roads will facilitate access to road-borne rescue parties and equipment to deal with emergencies. List of such crossing are as below:

SN	Km	Section	Name of road	Remarks
SECTION STARTS AT KM 0.820 (ROHA Excluded)				
1	02/4-5	ROHA-KOL	URDHAVANE - ROHA	RUB No.07
2	04/8-9	ROHA-KOL	ROHA ROAD	C/Engg. LC No.01
3	08/1-2	ROHA-KOL	--	RUB No.26
4	08/2-3	ROHA-KOL	GOVE ROAD	C/Engg. LC No.02
5	10/7-8	ROHA-KOL	NH 17	RUB No.33
6	12/3-4	ROHA-KOL	BHIRA RD SH	Spl/ Tfc. LC No.03 I/L
7	12.916	**KOLAD**		Station
8	14/0-1	KOL-INP	TISE RD	C/ Tfc. LC No. 04 I/L
9	15/9-16/0	KOL- INP	GHOTWAL RD	C/Engg. LC No. 05
10	16/6-7	KOL- INP	RATWAD SCHOOL ROAD	C/Engg. LC No.06
11	17/1-2	KOL- INP	RATWAD RD	C/Engg. LC No. 07
12	18/8-9	KOL- INP	DHARNACHIWADI RD	C/Engg. LC No. 08
13	20/3-4	KOL- INP	--	RUB No.91
14	20/7-8	KOL- INP	--	RUB No.95
15	20/9-21/0	KOL- INP	--	RUB No.97
16	22/ 6-7	KOL- INP	BHALE ROAD	C/Tfc.LC No.09 I/L
17	23.86	**INDAPUR**		Station
18	24/4-5	INP-MNI	--	RUB No.112
19	24/3-4	INP-MNI	MUTHWALI RD	C/ Tfc.LC No.10I/L
20	25/7-8	INP-MNI	KASHENE ROAD	C/ LC No.11
21	27/3-4	INP-MNI	TILORE RD	C/Engg. LC No.12
22	30.300	**MANGAON**		Station
23	30/4-5	MNI-GNO	NH-17 – NANORE	RUB No.142
24	31/3-4	MNI-GNO	MNI –NIJAMPUR RD	RUB No.147
25	31/9-32/0	MNI-GNO	MNI – KACERI RD.	RUB No.151
26	32/4-5	MNI-GNO	BHADHAV RD	C/Engg. LC No.13
27	33/6-7	MNI-GNO	VINCHAVALI VILLAGE	RUB No.159
28	34/2-3	MNI-GNO	NH 17	RUB NO.160
29	34/7-8	MNI-GNO	--	RUB No.162
30	39/3-4	MNI-GNO	KURVADE RD	C/Tfc.LC No.14 I/L
31	40/2-3	MNI-GNO	VADGHAR BUDDHWADI	C/Tfc.L.C.No.15I/L
32	40.785	**GOREGAON ROAD**		Station
33	41/2-3	GNO -VEER	--	RUB No.180
34	41/5-6	GNO -VEER	--	RUB No.182
35	42/1-2	GNO -VEER	NAGAVE VILLAGE RD.	RUB No.184

SN	Km	Section	Name of road	Remarks
36	45/4-5	GNO -VEER	VADPALE RD	C/Engg. LC No.16
37	46/3-4	GNO -VEER	--	RUB No.206
38	46.885	**VEER**		Station
39	48/4-5	VEER- SAPE	NH17 – MHAPRAL –TOLAMBET	RUB No.214
40	49/1-2	VEER- SAPE	--	RUB No.219
41	52/4-5	VEER- SAPE	MAHAD–GOTE – RAVDHAL	RUB No.235
42	54/9-55/0	VEER- SAPE	MAHAD NANDGAON RD	C/Tfc. LC No.17 I/L
43	55.000	**SAPE WAMNE**		Station
44	56/7-8	SAPE -KFD	--	RUB No. 255
45	59/3-4	SAPE -KFD	NANDAGAON – AMBAVALI	RUB No.264
46	62.785	**KARANJADI**		Station
47	64/4-5	KFD-VINH	REVTAL – UNDHERI RD.	RUB No.277
48	69/6-7	KFD-VINH	KUMBHARDE RD	C/Engg. LC No.18
49	72.900	**VINHERE**		Station
50	73/4-5	VINH-DWV	TAMHANE-VINHERA	RUB No.307
51	80.585	**DIWANKAUTI**		Station
52	81/8-9	DWV- KLBN	--	RUB No. 318
53	83/3-4	DWV- KLBN	NH17 – WAVE ROAD	ROB No.323
54	83/9-84/0	DWV- KLBN	--	RUB No.324
55	85/1-2	DWV- KLBN	NH17 BORGHAR RD.	ROB No.328
56	85/9-86/0	DWV- KLBN	--	RUB No.335
57	87/1-2	DWV- KLBN	NH17- UDHALE VILLAGE.	RUB No.345
58	90/800	**KALAMBANI BUDRAK**		Station
59	91/0-1	KLBN-KHED	NH17 – PEDHE RD	ROB No.362
60	91/9-92/0	KLBN-KHED	KHED APEDE RD	C/Tfc LC No.19I/L
61	93/9-94/0	KLBN-KHED	NH17–SUKHVALIRD	ROB No.369
62	95/0-1	KLBN -KHED	NH17 – SUKHVALI RD.	ROB No.372
63	95/9-96/0	KLBN -KHED	NH17 – SUKHAVALI RD.	RUB No.376
64	96/9-97/0	KLBN -KHED	NH17 VERAL RD.	ROB No.378
65	97/9-98/0	KLBN -KHED	--	ROB No.380
67	98/0-1	KLBN -KHED	NH17	ROB No.381
68	98.285	**KHED**		Station
69	99/8-9	KHED-ANO	KHED – BHOSTE RD.	RUB No,.386
70	105/1-2	KHED-ANO	NH17 – SHIV-KONNDAVALI	ROB No.398
71	106/7-8	KHED-ANO	NH17 – SHIV VILLAGE RD.	RUB No.402
72	111.690	**ANJANI**		**Station**
73	122/2-3	ANO-CHI	NH17 PADE–DHAMANDEVI	ROB No.446
74	124/7-8	ANO-CHI	PEDHE – PARSHURAM VILLAGE	ROB No.465
75	126/3-4	ANO-CHI	NH17 – PHARSI PHATA RD.	RUB No.476
76	127.877	**CHIPLUN**		**Station**
77	129/3-4	CHI-KMAH	NH17 - VALOPE	ROB No.485
78	130/5-6	CHI-KMAH	--	Spl/Engg. LC No.20 I/L
79	131/4-5	CHI-KMAH	NH17– KHERDI-KARAD RD.	RUB No.494
80	133/1-2	CHI-KMAH	KHERDI–DEWOOLWADI RD	RUB No.504
81	136/9-137/0	CHI-KMAH	NH17 – KAMATHE VANGI	ROB No.511
82	137.646	**KAMATHE**		**Station**
83	138/2-3	KMAH-SVX	KAMATHE - TERAV	ROB No.516
84	143/9-144/0	KMAH-SVX	NH17–SAWARDA -AHAWALI	ROB No.522

SN	Km	Section	Name of road	Remarks
85	146.302	**SAVARDA**		**Station**
86	146/8-9	SVX-AVRD	NH17 MANDKI RD.	RUB No.529
87	148/3-4	SVX-AVRD	NH17–AGAVE VILLAGE RD	ROB No.533
88	154/5-6	SVX-AVRD	NH17 – KHERSHET	ROB No.545
89	156.414	**ARAVALI ROAD**		**Station**
90	156/5-6	AVRD-KDVI	NH17 – MURDAVE RD.	RUB No.548
91	162/5-6	AVRD-KDVI	NH17 - KADWAI	ROB No.555
92	162/924	**KADVAI**		**Station**
93	170.285	**SANGAMESHWAR**		**Station**
94	173/6-7	SGR-UKC	ASURDE - JAMBHULWADI	ROB No.587
95	173/8-9	SGR-UKC	NH17 – DIGANI RD.	RUB No. 588
96	174/0-1	SGR-UKC	NH17 – DIGANI RD.	RUB
97	175/3-4	SGR-UKC	SGR - SAKHALKOND	ROB No.594
98	183.962	**UKSHI**		**Station**
99	196.482	**BHOKE**		**Station**
100	201/0-1	BHOKE-RN	RATNAGIRI - KHEDSHI	ROB No. 625
101	203/0-1	BHOKE-RN	GHAYALWADI VILLAGE RD.	RUB No.629
102	203.600	**RATNAGIRI**		**Station**
103	204/4-5	RN-NIV	MIRJOLE / PADAVE WADI RD	RUB No.633
104	205/1-2	RN-NIV	MIRJOLE RD.	RUB No.635
105	205/6-7	RN-NIV	RN – KOLHAPUR NH104	ROB No.636
106	206/3-4	RN-NIV	KHANJARGHAT VILLAGE RD.	RUB No.637
107	216/6-7	RN-NIV	CHANDERI - PALI	ROB No.645
108	218.993	**NIVASAR**		**Station**
109	221/4-5	NIV-ADVI	ANJANARI – NIVSAR RD.	RUB No.653
110	222/0-1	NIV-ADVI	ANJANARI - NIVSAR	ROB No.656
111	225/8-9	NIV-ADVI	NH17 - ANJANARI	ROB No.663
112	230/0-1	NIV-ADVI	--	ROB No.672
113	234/2-3	NIV-ADVI	LANJA – DHOBALE ROAD	RUB No.682
114	235.280	**ADAVALI**		**Station**
115	244/1-2	ADVI-VRLI	--	RUB No.697
116	245.230	**VERAVALI**		**Station**
117	245/7-8	VRLI-VID	VERVALI - PADWAN	ROB No.702
118	246/3-4	VRLI-VID	VERVALI VILLAGE ROAD	ROB No.703
119	250.718	**VILAVADE**		**Station**
120	259/9-260/0	VID-RAJP	RAJAPUR – SOUDHAI RD.	RUB No.720
121	260.42	**SAUNDAL(H)**		**Station.**
122	261/8-9	VID-RAJP	--	RUB No.722
123	267.349	**RAJAPUR RD**		**Station**
124	267/5-6	RAJP-KRPN	RAJAPUR – PHONDA	ROB No.732
125	268/5-6	RAJP-KRPN	SOLEWADI VILLAGE RD	ROB No.734
126	272/4-5	RAJP-KRPN	KONDE - KELWALI	ROB No.740
127	274/3-4	RAJP-KRPN	--	RUB No.747
128	275/5-6	RAJP-KRPN	--	RUB No. 749
129	275/700	**KHAREPATAN**		**Station**
130	282/3-4	KRPN-VBW	SHEPE VILLAGE RD.	ROB No. 763
131	283.943	**VAIBHAWADI RD**		**Station**
132	284/4-5	VBW- ACRN	VBW CITY – STATION RD.	ROB No.767
133	287/8-9	VBW- ACRN	TALERE- VAIBHAVWADI RD	Spl/Engg. LC No.21

SN	Km	Section	Name of road	Remarks
134	292/820	**ACHIRNE**		**Station**
135	296/2-3	ACRN -NAN	KASARDE – PHONDA	RUB No. 787
136	298/2-3	ACRN -NAN	KASARDE – PHONDA Rd.	C/Engg L.C No.22
137	299.552	**NANDGAON ROAD**		**Station**
138	300/1-2	NAN-KKW	NANDAGAV – PHONDA	ROB No. 794
139	304/1-2	NAN-KKW	BELNA TIWARE RD	C/Engg. LC No.23
140	306.3-4	NAN-KKW	HUMRAT - PHONDA	ROB No. 805
141	307/1-2	NAN-KKW	HUMRAT – PHONDA	RUB No. 808
142	308/1-2	NAN-KKW	KANKAVALI – SAKEDI RD	RUB No. 813
143	309/0-1	NAN-KKW	KANKAVALI – SAKEDI RD	C/Engg. LC No.24
144	309/6-7	NAN-KKW	--	RUB No. 816
145	312/6-7	NAN-KKW	--	ROB No.823
146	314/7-8	NAN-KKW	--	RUB No. 830
147	314.951	**KANKAVALI**		**Station**
148	315/8-9	KKW-SNDD	KANKAWALI HALWALRD	Spl/Tfc.L.C No.25 I/L
149	316/7-8	KKW-SNDD	KANKAVALI–DEVAIWADI RD	RUB No. 836
150	320/4-5	KKW-SNDD	--	ROB No. 846
151	321/7-8	KKW-SNDD	--	RUB No. 850
152	322/4-5	KKW-SNDD	--	ROB No. 852
153	323/3-4	KKW-SNDD	NH-17 BORDAVE ROAD	C/Engg. LC No.26
154	325/0-1	KKW-SNDD	KASAL - KARLEWADI	RUB No. 862
155	326/3-4	KKW-SNDD	--	ROB No. 867
156	327/7-8	KKW-SNDD	NH17 - KASAL	RUB No. 870
157	328/8-9	KKW-SNDD		ROB No. 872
158	330/7-8	KKW-SNDD	MALVAN – QURRY RD.	RUB No. 875
159	331/2-3	KKW-SNDD	MALVAN - RANBANBULI	RUB No. 878
160	331/8-9	KKW-SNDD	--	ROB No. 881
161	332.560	**SINDHUDURG**		**Station**
162	333/2-3	SNDD-KUDL	TALGAON ANAV ROAD	C/ Tfc LC No. 27
163	334/7-8	SNDD-KUDL	RANEWADI RD.	RUB No.886
164	336/9-337/0	SNDD-KUDL	PEDWEWADI - SUKALWADE	RUB No.892
165	338/5-6	SNDD-KUDL	BAV ROAD	RUB No.898
166	339/3-4	SNDD-KUDL	BAVKHALCHIPARABWADI RD	C/Engg.LC No.28
167	340/7-8	SNDD-KUDL	--	ROB No. 902
168	342/2-3	SNDD-KUDL	KUDAL RLY STN RD.	RUB No. 904
169	343.037	**KUDAL**		**Station**
170	343/7-8	KUDL-ZARP	NERULPAR RD.	RUB No. 910
171	344/2-3	KUDL-ZARP	KUDAL MIDC RD.	RUB No. 912
172	345/2-3	KUDL-ZARP	--	ROB No. 914
173	345/9-346/0	KUDL-ZARP	--	ROB No. 915
174	346/7-8	KUDL-ZARP	--	ROB No. 916
175	347/5-6	KUDL-ZARP	KUDAL – PINGURLI.	RUB No. 920
176	348/4-5	KUDL-ZARP		ROB No. 924
177	349/6-7	KUDL-ZARP	--	ROB No. 928
178	352/4-5	KUDL-ZARP	NH-17 BAMBARDE ROAD	Tfc.LC No.29 I/L
179	353.300	**ZARAP**		**Station**
180	353/4-5	ZARP-SWV	--	ROB No. 937
181	354/3-4	ZARP-SWV	--	ROB No. 940
182	355/7-8	ZARP-SWV	--	RUB No. 945

SN	Km	Section	Name of road	Remarks
183	356/2-3	ZARP-SWV	--	ROB No. 946
184	359/3-4	ZARP-SWV	--	ROB No. 955
185	361/4-5	ZARP-SWV	--	ROB No. 959
186	362/2-3	ZARP-SWV	MALGAV RD.	RUB No. 962
187	363/3-4	ZARP-SWV	--	ROB No. 964
188	363.880	**SAWANTWADI ROAD**		**Station**
189	364/5-6	SWV-MADR	MALGAON NIRWADE RD	C/Tfc.LC No.31I/L
190	366/6-7	SWV-MADR		ROB No. 970
191	369/3-4	SWV-MADR	SONURLI RD.	RUB No. 977
192	372/5-6	SWV-MADR	RONAPAL RD.	RUB No. 980
193	373.500	**MADURE**		**Station**
194	373/9-374/0	MADR-PERN		ROB No. 986
195	375/5-6	MADR-PERN	KELKERWADI RD.	RUB No. 989
196	379/2-3	MADR-PERN		RUB No. 997
197	380/0-1	MADR-PERN	MADURE SATOSO RD	C/Engg. LC No.32.
198	381/4-5	MADR-PERN	--	RUB No. 1001
199	382/5-6	MADR-PERN	--	ROB No. 1006
200	383/4-5	MADR-PERN	--	RUB No.1011
201	385.52	**PERNEM**		**Station**
202	386/7-8	PERN-THVM	--	RUB No.1017
203	389/0-1	PERN-THVM	--	RUB No. 1024
204	390/2-3	PERN-THVM	--	RUB No. 1027
205	390/7-8	PERN-THVM	--	RUB No. 1029
206	391/3-4	PERN-THVM	--	RUB No. 1031
207	392/2-3	PERN-THVM	--	RUB No. 1035
208	395/2-3	PERN-THVM	--	RUB No. 1043
209	396.430	**THIVIM**		**Station**
210	397/5-6	THVM-KRMI	--	ROB No.1051
211	398/2-3	THVM-KRMI	--	RUB No.1052
212	399/8-9	THVM-KRMI	Shirigao-Poira RD	C/Engg. LC No.33.
213	400/2-3	THVM-KRMI	--	RUB No.1061
214	400/8-9	THVM-KRMI	--	RUB No.1066
215	401/0-1	THVM-KRMI	--	RUB No.1067
216	402/4-5	THVM-KRMI	KARBAT ROAD	C/Engg. LC No.34
217	403/7-8	THVM-KRMI	ALDONA RD	A/Engg. LC No.35
218	405/0-1	THVM-KRMI	MAYEM – TIKASON	A/Engg. LC No.36
219	405/8-9	THVM-KRMI	--	RUB No.1086
220	407/0-1	THVM-KRMI	--	ROB No.1092
221	409/0-1	THVM-KRMI	--	RUB No.1098
222	409/3-4	THVM-KRMI	--	ROB No. 1100
223	411/6-7	THVM-KRMI	GONDALIM OLD GOA RD	B1/Engg. LC No.37
224	413/0-1	THVM-KRMI	--	ROB No. 1106
225	413.840	**KARMALI**		**Station**
226	414/5-6	KRMI-VEN	KARMALI - KORTIM	ROB No.1112A
227	424/8-9	KRMI-VEN	--	RUB No.1150
228	425/7-8	KRMI-VEN	--	RUB No.1154
229	428/2-3	KRMI-VEN	NAGAO - CONSUA	Spl/Engg. LC No.40
230	429.800	**VERNA**		**Station**
231	430/6-7	VEN-MJO	--	ROB No.1170

SN	Km	Section	Name of road	Remarks
232	432/7-8	VEN - MJO	MAJORDA - CANSAULIM	Spl/Engg. LC No.42
233	433/3-4	VEN-MJO	VERNA UTORDA RD	Spl/Engg.LC No.43
234	434/4-5	VEN-MJO	CANSAULIM MARGAO RD	Spl/Tfc LC No.44I/L
235	434.800	**MAJORDA**		**Station**
236	437.800	**SURAVALI(H)**		**Halt Station**
237	438/2-3	MJO-MAO	NUVEM SURAVALI RD	Spl/Engg.LC No.45
238	439/2-3	MJO-MAO	--	RUB No.1199
239	440/2-3	MJO-MAO	--	RUB No.1204
240	440/4-5	MJO-MAO	BENAVALI MARGAD RD	Spl/Tfc LC No.46I/L
241	441/3-4	MJO-MAO	--	ROB No.1211
242	442.460	**MADGAON**		**Station**
243	443/1-2	MAO-BLLI	--	ROB No.1219
244	444/0-1	MAO-BLLI	DAVORLIM RAVANFOND RD	Spl/TfcLC No.47I/L
245	446/3-4	MAO-BLLI	SAO JOSE DE AREALDICA-RPAL RD	C/Engg. LC No.48
246	447/3-4	MAO-BLLI	--	ROB No.1241
247	449/7-8	MAO-BLLI	GUDI CHINCHANI RD	Spl/Engg.LC No.49
248	453/7-8	MAO-BLLI	--	RUB No.1261
249	454/9-455/0	MAO-BLLI	--	RUB No.1267
250	456/5-6	MAO-BLLI	ROLLI ADNEM RD	C/Engg.LC No.49B
251	457/9-558/0	MAO-BLLI	--	RUB No.1277
252	458.635	**BALLI**		**Station**
253	459/4-5	BLLI-CNO	--	RUB No. 1287
254	460/1-2	BLLI-CNO	--	ROB No.1290
255	462/4-5	BLLI-CNO	--	ROB No.1305
256	465/4-5	BLLI-CNO	--	ROB No.1308
257	466/6-7	BLLI-CNO	--	RUB No.1312
258	467/4-5	BLLI-CNO	--	RUB No. 1314
259	468/0-1	BLLI-CNO	--	ROB No. 1317
260	473/1-2	BLLI-CNO	--	RUB No.1321
261	474/8-9	BLLI-CNO	--	RUB No. 1330
262	475.240	**CANACONA**		**Station**
263	476/2-3	CNO-LOL	--	RUB No.1335
264	476/6-7	CNO-LOL	--	RUB No.1336
265	480/1-2	CNO-LOL	--	RUB No.1347
266	480/6-7	CNO-LOL	--	RUB No.1349
267	481/8-9	CNO-LOL	--	RUB No.1352
268	485.150	**LOLIEM**		**Station**
269	485/7-8	LOL-AT	--	RUB No.1361
270	486/3-4	LOL-AT	--	RUB No. 1363
271	488/19-20	LOL-AT	MUDGERI RD	C/Engg. LC No.50
272	489/9-490/0	LOL-AT	MUDGERI ANGODI RD	C/Engg. LC No.51
273	492/0-1	LOL-AT	--	RUB No. 1381
274	492/5-6	LOL-AT	--	RUB No. 1383
275	493.221	**ASNOTI**		**Station**
276	494/3-4	AT-KAWR	--	ROB No. 1388
277	498/6-7	AT-KAWR	--	RUB No.1394
278	499/3-4	AT-KAWR	--	ROB No.1395
279	500/4-5	KAWR	JANATA COLONY RDSH	C/Tfc LC52 I/L

SN	Km	Section	Name of road	Remarks
280	501.021	**KARWAR**		**Station**
281	501/6-7	KAWR	KARWAR NARGERI RD	C/Tfc.LC No.53I/L
282	502/1-2	KAWR-HAA	KARWAR JAMBA RD	C/Engg. LC No.54
283	506/7-8	KAWR-HAA	--	RUB No.1411
284	507/1-2	KAWR-HAA	--	RUB No.1413
285	507/9-508/0	KAWR-HAA	--	RUB No.1417
286	509/1-2	KAWR-HAA	--	RUB No. 1419
287	509/6-7	KAWR-HAA	--	RUB No.1422
288	510/1-2	KAWR-HAA	--	RUB No.1424
289	510/8-9	KAWR-HAA	--	RUB No.1427
290	511/2-3	KAWR-HAA	--	RUB No.1429
291	512/2-3	KAWR-HAA	--	RUB No.1434
292	512/3-4	KAWR-HAA	--	RUB No.1435
293	514.636	**HARWADA**		**Station**
294	515/0-1	HAA-ANKL	--	RUB No. 1444
295	516/6-7	HAA-ANKL	KONDIGE RD	C/Engg. LC No.55
296	517/6-7	HAA-ANKL	--	RUB No. 1452
297	517/7-8	HAA-ANKL	--	RUB No. 1453
298	518/7-8	HAA-ANKL	--	RUB No. 1454
299	520/4-5	HAA-ANKL	--	ROB No. 1457
300	522/9-523/0	HAA-ANKL	--	RUB No. 1465
301	523/3-4	HAA-ANKL	--	RUB No. 1466
302	524/2-3	HAA-ANKL	--	RUB No. 1470
303	526/4-5	HAA-ANKL	ANANDGERI RD	C/Engg. LC No.56
304	527/3-4	HAA-ANKL	--	RUB No.1478
305	528/2-3	HAA-ANKL	--	RUB No. 1482
306	529.001	**ANKOLA**		**Station**
307	5306-7	ANKL-GOK	--	ROB No.1488
308	532/7-8	ANKL-GOK	--	RUB No.1495
309	532/9-533/0	ANKL-GOK	--	RUB No. 1496
310	531/8-9	ANKL-GOK	SONAGIMAKKI RD	C/Engg. LC No.57
311	534/4-5	ANKL-GOK	--	RUB No.1503
312	535/8-9	ANKL-GOK	GOKARNA RD	C/Tfc.LC No.58 I/L
313	536.941	**GOKARNA RD**		**Station**
314	537/9-538/0	GOK-MRJN	--	RUB No.1509
315	541/0-1	GOK-MRJN	NOSHI KOTE RD	C/Engg. LC No.59
316	542/5-6	GOK-MRJN	--	ROB No.1534
317	543/7-8	GOK-MRJN	--	ROB No.1540
318	544/8-9	GOK-MRJN	--	RUB No.1547
319	546/8-9	GOK-MRJN	KHANGAR RD	C/Engg. LC No.60
320	547/9-548/0	GOK-MRJN	--	ROB No.1558
321	548/480	**MIRJAN**		**Station**
322	549/0-1	MRJN-KT	RAMNAGAR RD	RUB
323	549/0-1	MRJN-KT	N H 17, RAMNAGAR Rd.	C/Engg. LC No.61
324	550/0-1	MRJN-KT	--	ROB No.1562
325	550/6-7	MRJN-KT	--	ROB No. 1563
326	553/2-3	MRJN-KT	--	ROB No.1574
327	554/2-3	MRJN-KT	KUMTA-HEGDE Rd.	Spl.Engg L.C No.62I/L
328	555/0-1	MRJN-KT	--	RUB No.1580

SN	Km	Section	Name of road	Remarks
329	556.032	**KUMTA**		**Station**
330	556/7-8	KT-HNA	--	RUB No. 1584
331	558/5-6	KT-HNA	--	RUB No.1592
332	559/6-7	KT-HNA	HOSAHERAVETTA VELANGALLI RD	C/Engg. LC No.63
333	560/9-561/0	KT-HNA	--	ROB No.1601
334	561/6-7	KT-HNA	--	RUB No.1605
335	565/9-566/0	KT-HNA	--	RUB No.1620
336	567/1-2	KT-HNA	--	RUB No.1625
337	567/9-568/0	KT-HNA	KADLE RD	C/Engg. LC No.64
338	568/9-569/0	KT-HNA	SHIKAR RD	C/Optg Tfc.LC No 65 I/L
339	569.812	**HONNAVAR**		**Station**
340	570/3-4	HNA-MANK	NH17VANDOOR RD	C/Optg Tfc LC No.66 I/L
341	571/8-9	HNA-MANK	--	RUB No.1644
342	572/8-9	HNA-MANK	--	ROB No.1646
343	578/5-6	HNA-MANK	--	RUB No.1662
344	581/4-5	HNA-MANK	--	RUB No.1674
345	583/7-8	HNA-MANK	--	ROB No.1684
346	585/2-3	HNA-MANK	NH17 FOREST ROAD	C/Engg.LC No.66B
347	586/3-4	HNA-MANK	--	ROB No.1693
348	587.608	**MANKI**		**Station**
349	588/5-6	MANK-MRDW	--	RUB No.1703
350	589/0-1	MANK-MRDW	NH17 GANJIGIRI RD	C/Engg. LC No.67
351	591/0-1	MANK-MRDW	KOTA ROAD	C/Engg. LC No.68
352	595/4-5	MANK-MRDW	--	RUB No.1736
353	596.005	**MURDESHWAR**		**Station**
354	596/9-597/0	MRDW- BTJL	--	RUB No.1739A
355	597/6-7	MRDW- BTJL	--	RUB No.1744
356	598/4-5	MRDW- BTJL	--	RUB No.1747
357	599/4-5	MRDW- BTJL	--	RUB No.1756
358	602/0-1	MRDW- BTJL	--	ROB No.1765
359	604.580	**CHITRAPUR (H)**		**Halt Station**
360	604/7-8	MRDW- BTJL	--	ROB No.1779
361	605/2-3	MRDW- BTJL	--	RUB No.1783
362	606/3-4	MRDW- BTJL	--	ROB No.1789
363	608/6-7	MRDW- BTJL	--	ROB No.1798
364	609/7-8	MRDW- BTJL	--	ROB No.1799
365	610.740	**BHATKAL**		**Station**
366	611/1-2	BTJL-SHMI	--	ROB No.1808
367	612/1-2	BTJL-SHMI	NH17 GANESH NAGAR RD	C/ Tfc LC No.69I/L
368	613/2-3	BTJL-SHMI	--	RUB No.1818
369	614/0-1	BTJL-SHMI	--	ROB No.1823
370	614/7-8	BTJL-SHMI	KANMARI RD	C/Engg. LC No.70
371	615/5-6	BTJL-SHMI	--	ROB No.1826
372	616/4-5	BTJL-SHMI	--	ROB No.1828
373	616/6-7	BTJL-SHMI		ROB No.1829
374	618.600	**SHIROOR**		**Station**
375	619/0-1	SHMI- BIJR	--	ROB No.1835
376	619/2-3	SHMI- BIJR	NH17 TEMPLEROAD	C/Tfc.LC No.71.I/L

SN	Km	Section	Name of road	Remarks
377	620/2-3	SHMI- BIJR	NH17 KADAVIAKONE RD	Spl/Engg.LC No.72.
378	621/6-7	SHMI- BIJR	--	RUB No.1843
379	623/2-3	SHMI- BIJR	--	ROB No.1848
380	626/0-1	SHMI- BIJR		ROB No.1849
381	626.475	**MOOKAMBIKA Rd - BYNDOOR (H)**		**Station**
382	627/0-1	SHMI- BIJR	GANGANDU NH17 RD	Spl/Engg. LC No.73
383	627/5-6	SHMI- BIJR	--	RUB No.1853
384	628/1-2	SHMI- BIJR	--	RUB No.1856
385	628/5-6	SHMI- BIJR	--	RUB No.1860
386	629/2-3	SHMI- BIJR	--	RUB No.1863
387	630/1-2	SHMI- BIJR	TEMPLE ROAD	C/Engg. LC No.74
388	630/8-9	SHMI- BIJR	NH17 DETTI RD	B2/Engg.LC No.74B
389	631/6-7	SHMI- BIJR	KANCHIKAN Rd	Spl/ Tfc LC No.75 I/L
390	632.352	**BIJOOR**		**Station**
391	633/3-4	BIJR-SEN	NH17 KERGAL RD	B1/Engg. LC No.76
392	634/3-4	BIJR-SEN	NH 17 KOLLUR RD	Spl/Engg. LC No.77
393	635/2-3	BIJR-SEN	--	RUB No.1886
394	636/4-5	BIJR-SEN	--	ROB No.1888
395	639/4-5	BIJR-SEN	--	ROB No.1895
396	640/5-6	BIJR-SEN	--	RUB No.1898
397	641/1-2	BIJR-SEN	--	RUB No.1901
398	641/6-7	BIJR-SEN	--	RUB No.1904
399	642/3-4	BIJR-SEN	--	ROB No.1906
400	644/6-7	BIJR-SEN	--	ROB No.1912
401	645/7-8	BIJR-SEN	KAL TINAMAKKI SENAPURA RD	C/Optg TfcLC No.78I/L
402	646.192	**SENAPURA**		**Station**
403	647/4-5	SEN-KUDA	--	ROB No.1921
404	648/8-9	SEN-KUDA	--	ROB No.1927
405	650/4-5	SEN-KUDA	--	ROB No.1934
406	652/4-5	SEN-KUDA	--	ROB No.1939
407	655/0-1	SEN-KUDA	--	ROB No.1948
408	,657/1-2	SEN-KUDA	--	RUB No. 1954
409	658/6-7	SEN-KUDA	--	RUB No.1958
410	659/0-1	SEN-KUDA	--	RUB No.1959
411	660.000	**KUNDAPURA**		**Station**
412	660/9-661/0	KUDA-BKJ	SHANTAVARA KALAVAL RD	Spl/Engg.LC No.79
413	662/1-2	KUDA-BKJ	--	RUB No.1970
414	662/3-4	KUDA-BKJ	--	ROB No.1972
415	664/1-2	KUDA-BKJ	BENKIKAN TEKATE RD	A/Engg. LC No.80
416	664/9-665/0	KUDA-BKJ	--	ROB No.1980
417	666/8-9	KUDA-BKJ		ROB No.1984
418	668/3-4	KUDA-BKJ	--	RUB No.1987
419	670/9-671/0	KUDA-BKJ	--	ROB No.1995
420	672/9-673/0	KUDA-BKJ	--	ROB No.2002
421	674/3-4	KUDA-BKJ	--	RUB No.2006
422	674/9-675/0	KUDA-BKJ	--	ROB No.2010
423	675.572	**BARKOOR**		**Station**
424	675/9-676/0	BKJ-UD	--	ROB No.2013
425	676/9-677/0	BKJ-UD	--	RUB No. 2017

SN	Km	Section	Name of road	Remarks
426	677/5-6	BKJ-UD	--	RUB No.2020
427	677/9-678/0	BKJ-UD	--	RUB No.2021
428	678/8-9	BKJ-UD	--	ROB No.2024
429	679/4-5	BKJ-UD	KUNJALMATAPADI RD	B/Engg. LC No.81
430	680/2-3	BKJ-UD	--	ROB No.2029
431	681/4-5	BKJ-UD	--	RUB No. 2033
432	682/0-1	BKJ-UD	--	ROB No.2036
433	682/6-7	BKJ-UD	BRAMAVARA HERANGE	A/Engg. LC No.82
434	683/5-6	BKJ-UD	--	ROB No.2041
435	684/4-5	BKJ-UD	--	ROB No.2044
436	685/6-7	BKJ-UD	--	ROB No.2052
437	687/7-8	BKJ-UD	--	ROB No.2059
438	689/2-3	BKJ-UD	--	ROB No.2061
439	690/3-4	BKJ-UD	--	ROB No.2066
440	690/8-9	BKJ-UD	--	ROB No.2068
441	691.900	**UDUPI**		Station
442	693/2-3	UD-INJ	--	ROB No.2079
443	693/7-8	UD-INJ	--	ROB No.2081
444	695/3-4	UD-INJ	--	ROB No.2085
445	696/1-2	UD-INJ	--	RUB No.2088
446	697/5-6	UD-INJ	--	ROB No.2092
447	698/5-6	UD-INJ	--	ROB No.2095
448	698/9-699/0	UD-INJ	KATAPADI SHANKARPURA	Spl/Engg.LC No.83
449	700/1-2	UD-INJ	--	ROB No.2101
450	701/1-2	UD-INJ	--	ROB No.2103
451	701.250	**INNANJE**		**Halt Station**
452	703/2-3	INJ-PDD	--	ROB No.2109
453	704/5-6	INJ-PDD	--	RUB No. 2115
454	705/0-1	INJ-PDD	--	ROB No.2116
455	705/8-9	INJ-PDD	--	ROB No.2118
456	707/5-6	INJ-PDD	--	ROB No.2122
457	708.320	**PADUBIDRI**		**Station**
458	709/3-4	PDD-NAND	--	ROB No.2126
459	711/1-2	PDD-NAND	NH17ADMAR RD	B/Engg. LC No.84
460	711/7-8	PDD-NAND	--	RUB No.2133
461	712/5-6	PDD-NAND	--	ROB No.2137
462	713/5-6	PDD-NAND	--	RUB No.2140
463	713/8-9	PDD-NAND	PODUBETTU -YELLUR RD	C/Engg. LC No.85
464	715/7-8	PDD-NAND	--	ROB No.2144
465	717.450	**NANDIKUR**		**Station**
466	718/1-2	NAND-MULK	PALIMAR RD	C/TfcLCNo.85AI/L
467	720/5-6	NAND-MULK	MULKI RIVER -ATHIKARIBETT	C/Engg. LC No.86
468	721/6-7	NAND-MULK	MULKI MOLLILUTTU	Spl/Engg. LC No.87
469	723/6-7	NAND-MULK	--	ROB No.2172
470	724/3-4	NAND-MULK	--	ROB No.2173
471	724.800	**MULKI**		**Station**
472	726/5-6	MULK-SL	PADAPANAMBUR NH17 KINNI	C/Engg. LC No.88
473	727/1-2	MULK-SL	HALEANGADI KINNINIGOLI	Spl/Engg. LC No.89
474	729/8-9	MULK-SL	--	ROB No.2198
475	731/2-3	MULK-SL	--	ROB No.2205

SN	Km	Section	Name of road	Remarks
476	731/4-5	MULK-SL	--	RUB No.2206
477	731/7-8	MULK-SL	--	ROB No.2207
478	732/8-9	MULK-SL	--	ROB No.2211
479	733.825	**SURTHKAL**		**Station**
480	734/1-2	SL-TOK	--	ROB No.2217
481	735/0-1	SL-TOK	--	RUB No.2221
482	735/7-8	SL-TOK	--	ROB No.2223
483	736/2-3	SL-TOK	THOKUR KULAI RD	C/Tfc LC No.90 I/L
484	737/0-1	SL-TOK	--	ROB No.2228
485	738.440	**THOKUR**		**Station**
SECTION ENDS AT KM 739.760 (THOKUR Included)				

*****

कोंकण रेलवे कॉर्पोरेशन लिमिटेड

PART – B

DISASTER MANAGEMENT PLAN

TELEPHONE DIRECTORY

TELEPHONE NUMBERS OF KRCL OFFICERS AT CORPORATE OFFICE, BELAPUR

DESIGNATION	NAME	Rly (019)	LAND LINE (022)
BOARD MEMBERS			
CHAIRMAN & MANAGING DIRECTOR	Sh. SANTOSH KUMAR JHA	87300	27587300
DIRECTOR (Operations & Commercial)	Sh. SUNIL GUPTA	87301	27587301
DIRECTOR (Finance)	Sh. R. M. BHADANG	87303	27587303
DIRECTOR (Way & Works)	Sh. RAJEEV KUMAR MISHRA	87302	27587302
HEAD OF THE DEPARTMENTS			
CHIEF OPERATING MANAGER	Sh. RAJENDRA KUMAR SHARMA	87390	27587390
PRINCIPAL CHIEF ENGINEER	Sh. L. PRAKASH	87322	27587322
EXECUTIVE DIRECTOR (Business & Operations)	Sh. SATYENDRA KUMAR SHUKLA	87340	27587340
CHIEF MECHANICAL ENGINEER	Sh. DINESH K. GAJBHIYE	87350	27587350
PRINCIPAL CHIEF SIGNAL & TELECOM ENGINEER	Sh. ASHISH APTE	87370	27587370
PRINCIPAL CHIEF SECURITY COMMISSIONER	Sh. ABHISHEK KUMAR	87330	27587330
CHIEF COMMERCIAL MANAGER	Sh. ASHUTOSH SHRIVASTAVA	87490	27587490
PRINCIPAL CHIEF MEDICAL OFFICER	Dr. RAJANISH SHETTY	87355	27587355
CONTROLLER OF STORES	Sh. ARUN MEHTA	87380	27587380
CHIEF SAFETY OFFICER	Sh. N. M. TELANG	87395	27587395
CHIEF PERSONNEL OFFICER	Sh. BALASAHEB NIKAM	87360	27587360
EXECUTIVE DIRECTOR (FA)	Sh. MATHEW PHILIP	87310	27587310
EXECUTIVE DIRECTOR (Information & Technology)	Smt. BINDU K. MURALIDHARAN	87530	27587530
CHIEF VIGILANCE OFFICER	Sh. B. K. GANGTE	87480	27587480

TELEPHONE NUMBERS OF OTHER OFFICERS AT CORPORATE OFFICE, BELAPUR				
DESIGNATION	**NAME**	**Rly (019)**	**LAND LINE (022)**	**MOBILE No.**
CPRO	Sh. SUNIL B. NARKAR	87437	27587437	9004470393
CPM (Electrical)	Sh. KRISHNA LAMBANI	87342	27587342	9004470342
DGM (Operation & Safety)	Sh. SUSHANTA KUMAR BALA	87304	27587304	9004470384
DGM (Admin)	Sh. GANESH SAMANT	87441	27587441	9004447005
Executive Consultant (Loco)	Sh. R. J. SINGH	87341	27587341	7709894070
Dy. CCM (Goods)	Sh. DINESH BONDE	87492	27587492	9004470394
Dy. CCM (Coaching)	Sh. R. D. GHOLAP	87488	27587488	9004470494
Dy. CTE	Sh. VIJAY S. SHINDE	87337	27587337	9004470345
Dy. CE (HQ)	Sh. SUDHIR KULKARNI	87323	27587323	9004470321
Dy. CE (BRIDGE)	Sh. P. G. R. NAIR	87527	27587527	9004470324
Dy. CMIT	Sh. SUNIL RATHOD	87533	27587533	9004470436
Dy. CMIT (HQ)	Sh. YOGESH P. KURKURE	87534	27587534	9004470338
Dy. CME (HQ)	Sh. B. T. RAJANNA	87353	27587353	9004470352
Dy. CTM	Sh. HARSHIT BISHNOI	87392	27587392	9004470383
Dy. CPO (HQ)	Sh. P. V. SALGAONKAR	87463	27587463	9004470469
STM (Goods & Planning)	Sh. RAJESH HOMBAL	87397	27587397	9004470382
ASC (C&I)	Sh. JUBIR KHAN PATHAN	87332	27587332	9004470331
ASC (HQ)	Sh. DINESH NAIR	87432	27587432	9004470753
Dy. CSTE (HQ)	Sh. RAMESH BABU	87373	27587373	9004470373
Dy. CMM	Sh. K. SITARAMANUJACHARYULU	87381	27587381	9004470496
Dy. CVO	Sh. SUJAY KUMAR	87367	27587367	9004470325

TELEPHONE NUMBERS OF KRCL OFFICERS AT REGION (RN & KAWR)

PHONE NUMBERS OF RATNAGIRI REGIONAL OFFICERS

RATNAGIRI				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (02352)**	**Mobile No.**
REGIONAL RAILWAY MANAGER	S.D. BAPAT	40300	228922	9004447008
Sr.REN	R.I PATIL	40330	--	9004474403
Dy CMO	Dr. NAGANATH JILLEWAD	40350	--	9004474405
RTM (Commercial)	SHAILESH D AMBARDEKAR	40312	228906	9004474410
Sr. REE	R. P. JOSHI	40320	--	9004474413
REE	BABU KHEDLE	40620	--	
RSTE	SHYAMSUNDAR KASKAR	40370	228909	9004474407
Sr. RMIT (L/A)	SUDHA PANDIT	40376	--	9004474412
RME	T. KUMARAN	40340	--	9004474404
Sr. RPO	MAHESH R. SAKHALKAR	40308	--	9004474408
RSO (SAFETY)	ARAVIND KUMAR	40315	--	9004474451
SEN (WORKS)	S.R. GUNJE	40334	--	7400408321
AEN	R. A. MOKADAM	40332	--	9004474608
ASC	GOKUL SHIVDAS SONONI	40360	--	9004474406
ASO (S&T)	GIRISH RAHALKAR	40374	--	7400408480
ATM (Operation)	PRASHANT GAD	40310	--	9004474411
CHIPLUN				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (02355)**	**Mobile No.**
Dy. CMO	Dr. S M MADAR	33350	--	9004474505
SSTE/CHI	SAGAR GHOTHNE	33372	--	9004474507
AEN	PAWAN JOSHI	33332	--	9004474422
AEE/CHI	A.A. KETKAR	33322	--	7400408340
KANKAVALI				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (02367)**	**Mobile No.**
SEN	G. B. NAGALE	47332	--	9004474423
ASTE	PANKAJ KAMBLE	47372	--	9004474509

PHONE NUMBERS OF KARWAR REGIONAL OFFICERS

MADGAON				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (0832)**	**Mobile No.**
EXECUTIVE DIRECTOR (SP & BD)	JOSEPH E GEORGE	70500	2705268	9004476707
RRM	ASHA SHETTY	70300	2705266	9945047008
Dy. CSO				
Dy.CMO	Dr. VINOD B. KANTODE	70350	2731121	9004477505
DGM (PR, PLG & BD)	BABAN GHATGE	70308	2702579	9004477508
Dy.CMM	SAIYAD NURANI	70390	2704054	9004477509
SR. RTM (Operating)	ENAYET HUSSAIN	70312	2734953	9373162671
SR. RTM (Commercial)	DILEEP BHATT	70313	2712793	9004477510
RME	SHRIKANT SHIDLING	70340		9004477504
RSC	YASH MISHRA	70360	2712147	9004477506
AME	GAUTAM GAUDE	70342	-	9004477504
AEE/RE	DAVID	70924	-	7400408442
ASO/MAO	P N MANDAL	70423	-	9686656211
SEN	SUBODH KUMAR	70332	2735706	9004477513
SMR	C. K. THOBIAS	70212	-	9004476734
SSTE	AKSHAY KHALADKAR	70372	2706480	9004477507
KARMALI				
AEE/KRMI	SHUBHAM SINHA	55275	-	8919489381
VERNA				
AME	DHANANJAY VARMA	57342	-	9004477342
Dy. CMO	SATISH KUMAR NAIK JARAPALA	57350	2755615	9004477515
AME		57341	-	
KAWAR				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (08382)**	**Mobile No.**
REGIONAL RAILWAY MANAGER (RRM)	ASHA SHETTY	75300	283176	9945047008
SR.REN	P. UDAYA BHASKAR	75330	283125	9686656203
SR. RSTE	RAHUL BAADKAR	75370	283185	9686656207
SR. REE	VINAYAK NAIK	75320	283168	9686656202
UDUPI				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (0820)**	**Mobile No.**
Dy. CMO	DR STEVEN GEORGE	93350	2523873	9686656164
SEN	M. V. GOPALKRISHNAN	93332	2524131	9686656214
SSTE	D.SUDARSHAN REDDY	93372	-	9686656217
RRM-CAMP OFFICE / MANGALURU				
Designation	**Name (Sh/Smt.)**	**RLY (019)**	**BSNL (0824)**	**Mobile No.**
RRM (CAMP OFFICE)	ASHA SHETTY	99200	2424164	9945047008
Sr.RTM		99310	-	9686656210
ATM	G.D. MEENA	99312	-	9004476735
MPR	SUDHA KRISHNAMURTHY	99308	-	9686656125

***

TELEPHONE NUMBERS OF KONKAN RAILWAY STATIONS

SR. NO	RAILWAY STATION	STATION CODE	KRCL NUMBERS	BSNL / JIO	MOBILE NO.
1	KOLAD	KOL	21210	02194-250038	9004474549
2	INDAPUR	INP	23210	9209403271	9209403272
3	MANGAON	MNI	24210	02140-262231	9004474551
4	GOREGAON ROAD	GNO	25210	9209403270	9209403269
5	VEER	VEER	26210	8668793688	9004474550
6	SAPE WAMANE	SAPE	27210	9209403279	8010903480
7	KARANJADI	KFD	28210	8668796515	9004474552
8	VINHERE	VINH	29210	02145-274422	9004474553
9	DIWANKHAUTI	DWV	30210	8668796505	9004474554
10	KALAMBANI	KLBN	61210	9209403273	9699745802
11	KHED	KHED	31210	9209403278	9004474555
12	ANJANI	ANO	32210	9209403274	9004474556
13	CHIPLUN	CHI	33210	8668799324	9004474557
14	KAMATHE	KMAH	34210	8668797276	9004474558
15	SAVARDE	SVX	35210	02355-264183	9004474559
16	ARAVALI ROAD	AVRD	36210	02354-284814	9004474560
17	KADVAI	KDVI	62210	9209403275	9699745803
18	SANGAMESHWAR	SGR	37210	8668799284	9004474561
19	UKSHI	UKC	38210	8668799285	9004474562
20	BOKE	BOKE	39210	8668799287	9004474563
21	RATNAGIRI	RN	40210	02352-230113	9004474564
22	NIVSAR	NIV	41210	9004474759	9004474565
23	ADAVALI	ADVI	42210	8668799304	9004474566
24	VERAVALI	VERL	66210	9209403277	9699745805
25	VILAWADE	VID	43210	8668797351	9004474567
26	RAJAPUR ROAD	RAJP	44210	8668797624	9004474568
27	KHAREPATHAN	KRPN	64210	9209403280	8010903442
28	VAIBHAVWADI ROAD	VBW	45210	8668797646	9004474569
29	ACHIRANE	ACRN	65210	9209403276	9699745804
30	NANDGAON ROAD	NAN	46210	02367-248502	9004474570
31	KANKAVALI	KKW	47210	02367-230121	9004474571
32	SINDHUDURG	SNDD	48210	02362-228575	9004474572
33	KUDAL	KUDL	49210	02362-221408	9004474573

SR. NO	RAILWAY STATION	STATION CODE	KRCL NUMBERS	BSNL / JIO	MOBILE NO.
34	ZARAP	ZARP	50210	8668797917	9004474574
35	SAWANTWADI	SWV	51210	02363-258300	9004474576
36	MADURE	MADR	52210	8668798045	9004474575
37	PERNAM	PERN	53210	9004476327	9004476889
38	THIVIM	THVM	54210	9004476041	9004476890
39	KARMALI	KRMI	55210	9004476042	9004476891
40	VERNA	VEN	57210	0832-2754501	9004476892
41	MAJORDA	MJO	58210	0832-2790800	9004476893
42	MADGAON	MAO	70210	0832-2701933	9004476894
43	BALLI	BLLI	71210	9356922312	9004476895
44	CANCONA	CNO	72210	7400408474	9004476896
45	LOLIEM	LOL	73210	9356922310	9004476879
46	ASNOTI	AT	74210	9019921261	9686683901
47	KARWAR	KAWR	75210	08382-282266	9686683902
48	HARWADA	HAA	76210	9019921262	9686683903
49	ANKOLA	ANKL	77210	9019921263	9686683904
50	GOKARNA ROAD	GOK	78210	9663470867	9686683905
51	MIRJAN	MRJN	67210	9019921255	9606932729
52	KUMTA	KT	79210	08386-223886	9686683906
53	HONNAVAR	HNA	80210	8088417855	9686683907
54	MANKI	MANK	81210	8310137807	9686683908
55	MURUDESHWAR	MRDW	82210	8310137805	9686683910
56	BHATKAL	BTJL	84210	08385-223377	9686683911
57	SHIROOR	SHMI	85210	9686037485	9686683912
58	MOOKAMBIKA RD	BYNR	89215	8310137887	9686683919
59	BIJOOR	BIJR	89210	9606448416	9686683913
60	SENAPURA	SEN	90210	8310137825	9686683914
61	KUNDAPUR	KUDA	91210	8310137826	9686683915
62	BARKUR	BKJ	92210	0820-2587700	9686683916
63	UDUPI	UD	93210	0820-2524457	9686683917
64	INNANJE	INJ	69210	9019921264	9019921259
65	PADUBIDRI	PDD	94210	9686683851	9686683918
66	NADIKUR	NAND	95210	8431404601	9686683920
67	MULKI	MULK	96210	8431404602	9686683921

SR. NO	RAILWAY STATION	STATION CODE	KRCL NUMBERS	BSNL / JIO	MOBILE NO.
68	SURATKAL	SL	97210	0824-2477100	9686683922
69	THOKUR	TOK	98210	9019921265	9686683923
70	THOKUR YARD	TOK YD	98212	-	9686683927

TELEPHONE NUMBERS OF CONTROL OFFICE & ACCIDENT INFORMATION

AIRTEL CUG MOBILE NUMBERS OF CONTROL				
DESIGNATION	**Rly (019)**	**LAND LINE (022)**		**MOBILE No.**
OPERATING CONTROL (Deputy Controller) North Board Controller Middle Board Controller South Board Controller	87393, 87627 87628, 87629	27587393	27579969	9004447199 7977780110 7977780105 7977780098
COMMERCIAL CONTROL	87394	27587394	-	9004447299
ENGINEERING CONTROL	87618	27587618	27565624	9004447399
S & T CONTROL	87299	27587299	-	9004447499
MECHANICAL CONTROL	87357	27587357	-	9004447599
TRACTION POWER CONTROL(N)	87699	27587699	-	9004447699
TRACTION POWER CONTROL(S)	87799	27587799	-	9004470543
IT CONTROL	87293	27587293	-	9004470555
POWER CONTROL (C&W)	87352	27587352	-	7410057657
FOIS	87517	27587517	-	7977780097
COIS	87519	27587519	-	7977780093
RPF CONTROL	87222	27587222	27562646	9004470730

Note: Accident Information Number- 139

TELEPHONE NUMBERS OF OFFICERS OF OTHER ZONAL RAILWAYS

CENTRAL RAILWAY				
DESIGNATION	**OFFICE**		**Residence**	
	RLY	**MTNL**	**RLY**	**MTNL**
CONTROL OFFICE - CENTRAL CONTROL	54226 54236	22697281		
EMERGENCY CONTROL	54238 54239	22620377		
TEST ROOM (S&T)	55824 55825	22620086		
MD - JRH		43100	67643252 8384090801	
JRH HOSPITAL	CASUALTY	43300	23080755 9004490528	
C.RLY BYCULLA	OFFICE	52945 52946	02267452945 02267452946	
C.RLY BYCULLA	CASUALTY	52901	02267452901	
HELP DESK		43333	67643333 9004448519	

WESTERN RAILWAY				
DESIGNATION	**OFFICE**		**RESIDENCE**	
	RLY	**MTNL**	**RLY**	**MTNL**
CONTROL OFFICE - CENTRAL CONTROL(CCG)	22978 22199	22097526 22014597	-	-
CONTROL OFFICE - DIVISION CONTROL	44625 44615	23070564	-	-
EMERGENCY CONTROL - Office on Duty	22872 22220	22017420	-	-
TEST ROOM (S&T)	44840 44841	23085378	-	-

SOUTH WESTERN RAILWAY				
DESIGNATION	**BSNL CODE- 0836**		**RAILWAY CODE-065**	
	OFFICE	**RESI**	**OFFICE**	**RESI**
TEST ROOM (S&T)	46492	2363607		
HUBLI HQ	065-26188		0836-2289605	
HUBLI DIV.	065-46191		0836-2361627	

SOUTHERN RAILWAYS				
DESIGNATION	OFFICE		RESIDENCE	
	RLY	BSNL	RLY	BSNL
	CODE-060	STD 0491	CODE-060	STD 0491
TEST ROOM S&T	62950 /62951	2555359		
PALAKKAD DIV (PGT) - MANGALORE CENTRAL	8991122251			

RAILWAY BOARD					
DESIGNATION	NAME	RLY TEL NO.(OFF.)	RLY TEL NO.(RESI)	MTNL TEL NO.(OFF.)	MTNL TEL NO.(RESI)
PED / SAFETY	SANJAY MISHRA	47406	-	23047406	-
ED/SAFETY(S&T)	B.M. TRIPATHI	47407	-	23047407	-
ED/SAFETY(TRAFFIC)	MUKUL KUMAR	47408	-	23047408	20818333
ED/SAFETY/EE	ASHOK KUMAR NAKRA	47427	-	23047427	-
ED/SAFETY/CIVIL	RAHUL SRIVASTAVA	47425	22295	23047425	-
EDME (SAFETY)	UTKARSH	47428	-	23047428	-
CHIEF CNTR. SAFETY	-	43599, 43399, 47423	-	23382638	-
SAFETY INSPECTOR	SUNIL KUMAR	44425, 47421	-	23304425	-

***

TELEPHONE NUMBERS OF COMMISSIONER OF RAILWAY SAFETY

OFFICE OF CHIEF COMMISSIONER RAILWAY SAFETY, NEW DELHI		
CHIEF COMMISSIONER OF RAILWAY SAFETY	SHRI JANAK KUMAR GARG	011-23369778
DY. CRS (G)	SHRI AVINASH KUMAR	011-42626293
NORTHERN CIRCLE, NEW DELHI		
COMMISSIONER OF RAILWAY SAFETY	SHRI DINESH CHAND DESHWAL	011-26886589
DY. CRS (TECH.)/S&T	SHRI DEEPAK KUMAR	011-26886589
NORTH EASTERN CIRCLE, LUCKNOW		
COMMISSIONER OF RAILWAY SAFETY	SHRI PRANJEEV SAXENA	0522-2234538
DY. CRS (TECH.)/S&T	SHRI ASHISH PANDEY	
WESTERN CIRCLE, MUMBAI		
COMMISSIONER OF RAILWAY SAFETY	SHRI E. SRINIVAS	022-22034351
DY. CRS (TECH.)/S&T	SHRI DEV PRAKASH	022-22034351
CENTRAL CIRCLE, MUMBAI		
COMMISSIONER OF RAILWAY SAFETY	SHRI MANOJ ARORA	022-22056058
DY. CRS (TECH.)/ET	SHRI PRASANNA K KATARIA	022-22056058
EASTERN CIRCLE, KOLKATA		
COMMISSIONER OF RAILWAY SAFETY	SHRI SUMEET SINGHAL (A/C)	033-22483945 033-22105514
DY. CRS (TECH.)/S&T	SHRI MONIRUL ISLAM KHAN	033-22483945 033-22105514
NORTHEAST FRONTIER CIRCLE, KOLKATA		
COMMISSIONER OF RAILWAY SAFETY	SHRI SUMEET SINGHAL	
DY. CRS (TECH.)/S&T	SHRI JYOTIRMOY RAY	
SOUTH EASTERN CIRCLE, KOLKATA		
COMMISSIONER OF RAILWAY SAFETY	SHRI BRIJESH KUMAR MISHRA	033-22484858
DY. CRS (TECH.)/CIVIL	SHRI ASHUTOSH KUMAR	033-22484858

SOUTHERN CIRCLE, BENGALURU		
COMMISSIONER OF RAILWAY SAFETY	SHRI A. M. CHOWDHARY	080-22260650
DY. (TECH.)/CIVIL	SHRI NITISH KUMAR RANJAN	080-22260651
SOUTHERN CENTRAL CIRCLE, SECUNDRABAD		
COMMISSIONER OF RAILWAY SAFETY	MS. MADHAVI	040-27820104
DY. CRS (TECH.)/CIVIL	SHRI G. SRINIVASA RAO	040-27788851

TELEPHONE NUMBERS OF ART / SPARM cum MFD TV

TELEPHONE CONNECTIONS OF ART / SPARM CUM MFD TV / VEN			
S. No.	**CONNECTION**	**MOBILE NO.**	**NETWORK**
1	ART	8991112918	Satellite Phone
2	SPARM cum MFD TV	8991112917	Satellite Phone
3	ART	9004477564	Jio-CUG
4	ART	9004477571	Jio-CUG
5	ART	9004477572	Jio-CUG
6	SPARM cum MFD TV	9004477573	Jio-CUG
7	SPARM cum MFD TV	9004477575	Jio-CUG
8	SPARM cum MFD TV	9004477577	Jio-CUG
9	ART	8411078614	Vodafone-Idea
10	SPARM cum MFD TV	8411078615	Vodafone-Idea
11	ART	8380095718	Vodafone-Idea
12	SPARM cum MFD TV	8380095719	Vodafone-Idea
13	ART	9422444426	BSNL
14	SPARM cum MFD TV	9405860944	BSNL
15	ART	9421697945	BSNL- (For DATA)
16	SPARM cum MFD TV	9421697915	BSNL- (For DATA)
17	ART	8530596622	Airtel
18	SPARM cum MFD TV	8530496633	Airtel

TELEPHONE CONNECTIONS OF ART/ SPARM CUM MFD TV /RN			
1	SPARM cum MFD TV	8991112916	Satellite Phone
2	SPARM cum MFD TV	9004474857	Jio-CUG
3	SPARM cum MFD TV	8010903421	Jio-CUG
4	SPARM cum MFD TV	9004474856	Airtel
5	SPARM cum MFD TV	9420685447	BSNL
6	SPARM cum MFD TV	9923850447	Vodafone-Idea

TELEPHONE CONNECTIONS OF ART (OTHER RAILWAYS)			
1	ART, Kurla Station, CR	8991112671	Satellite Phone
2	ART, Vasco Station, SWR	8991112849	Satellite Phone
3	ART, Mangalore Central Station, SR	8991122251	Satellite Phone

ZONAL NODAL OFFICERS AND HELP LINE NUMBERS OF ALL ZONAL INDIAN RAILWAYS			
Zonal Railway	**Nodal Officer and Mobile No.**	**Co-ordinating Officer**	**Mobile & Landline Numbers of Co-ordinating Officer**
Central Railway, Mumbai	PSCO, 8828110730	Dy. CSO/Elect.	8828110733, 022-22697276
East Central Railway, Hajipur	PSCO, 9771425940	Dy. CSO/Engg.	9771425942, 06224-23316
East Coast Railway, Bhubaneshwar	PSCO, 8455885940	Dy. CSO/Traffic	8455885942, 0674-54564
Eastern Railway, Kolkata	PSCO, 9002020990	Dy. CSO/Traffic	9002020993, 033-22316056
North Central Railway, Allahabad	PSCO, 9794835902	Dy. CSO/Traffic	9794835911, 0532-2230291
North Eastern Railway, Gorakhpur	PSCO, 9794840901	STM/Safety	9794840914, 0551-2200835
North Western Railway, Jaipur	PSCO, 9001195910	Dy. CSO/Mech	9001195912, 0141-2725934
Northeast Frontier Railway, Guwahati	PSCO, 9957550730	Dy. CSO/Traffic	9957550731, 0361-2675359
Northern Railway, New Delhi	PSCO, 9717630904	Dy. CSO/Mech	9717630419, 011-23381597
South Central Railway, Secunderabad	PSCO, 9701370730	Dy. CSO/Mech	9701370734, 040-27820519
South East Central Railway, Bilaspur	PSCO, 9752475550	Dy. CSO/Traffic	9752475554, 07752-63462
South Eastern Railway, Kolkata	PSCO, 9002080660	Dy. CSO/Engg.	9002080665, 033-44356
South Western Railway, Hubli	PSCO, 9731665730	Dy. CSO/Traffic	9731665735, 0836-26156
Southern Railway, Chennai	PSCO, 9003060940	Dy. CSO/Traffic	9003060941, 044-28192281
West Central Railway, Jabalpur	PSCO, 9752415650	Dy. CSO/Traffic	9752415653, 0761-256029
Western Railway, Mumbai	PSCO, 9004490730	Dy. CSO/Traffic	9004490731, 022-230152
Metro/Kolkata	PSCO, 9007958400	Dy. CSO/Traffic	9007041318, 033-22267569
Konkan Railway Corporation Limited	PSCO, 9004470480	Dy. CSO/Traffic	9004470385
Dedicated Freight Corridor Corporation of India Ltd.	GM/Safety, 9910487395	DGM/Safety	9717647382

TELEPHONE NUMBERS OF NDRF & AERODROMES

NAME / DESIGNATION	Control Room
NDRF Force HQ New Delhi (Control Room)	011-23438091
NDRF Pune (for Maharashtra and Goa) 5th Battalion	09422315628 09422318427
NDRF (for Karnataka) 10th Battalion	08333068559 08333068540 08897900037
NDMA Control Room	011-26701728 011-26701729 (F) 011-1078 9868891801 9868101885

CONTACT DETAILS OF AERODROMES OF MUMBAI, GOA AND MANGALORE AREA					
AERODROME	**OPERATOR/ IN-CHARGE**	**TELEPHONE No**	**MOBILE No**	**FAX**	**E-MAIL ADDRESS**
MUMBAI	IVC(AAI/MAIL) WSO(ATC)	022-26156400, 26819332, 26156500, 26329112, 26329130, 26828088	9821442603	26828066	gargmanoj17@rediffmail.com
GOA	INDIAN NAVY AAI APD	0832-2540806, 2538456, 2541835	9823196393	2541610	apdgoa@aai.ae ro
GOA MOPA AIRPORT	Safety Manager	9156188804			
MANGALORE	AAI APD ATC	0824-2220400, 2220410	9448125412	2254175	apd_mangalore@aai.aero

STATE ADMINISTRATIONS

MAHARASHTRA STATE

TELEPHONE NUMBERS OF STATE ADMINISTRATIONS

SR. No.	DESIGNATION	TELEPHONE NO.
1	Chief Secretary, Maharashtra	022-22025042 / 22028762, Fax-022-22028594
2	Secretary Relief & Rehabilitation, Mumbai	022-22025274 (Office), 9321587143 (Control)
3	Principal Secretary Relief Commissioner Earthquake Rehabilitation Relief & Rehabilitation	022-22025274 (Office), 9321587143 (Control)

DISTRICT ADMINISTRATION

SR. No.	DESIGNATION	JURISDICTION	TELEPHONE NO.
1	District Collector	Raigad	02141-228530 / 9766703296
	District SP		02141-222093 / 222329 / 9820758515, 9922612642
	Raigad RDC		02141-222081
2	District Collector	Ratnagiri	02352-222301 / 9130372222
	District SP		02352-225077 (Office) / 222222 / 271257 / (100)
3	District Collector	Sindhudurg	02362-228847 / 7498067835
	District SP		02362-228201 (Office) / 228200 (Control)

DISTRICT EMERGENCY NUMBERS			
Authority	**Raigad**	**Ratnagiri**	**Sindhudurg**
Collector & District Magistrate	02141-222097 02141-222118 02141-222322	02352-222301	02362-228844
Resident Deputy Collector	02141-222081	--	02362-228845
District Emergency Operation Centre (DEOC)	02141-222097	02352-222233 02352-226248	02362-228847 7498067835

GOA STATE

SR. No.	DESIGNATION	TELEPHONE NO.
1	Chief Secretary, Goa	0832-2419659, Fax-0832-2415201

DISTRICT ADMINISTRATION

DISTRICT	DESIGNATION	JURISDICTION	TELEPHONE NO.
North Goa	District Collector	Pernem to Verna	0832-2223612 (Office), 2225383 (Control)
	DGP		0832-2428360 (Office), 2428400 (Control)
	IGP		0832-2416100
South Goa	District Collector	Verna to Asnoti	0832-2794414 (Office), 2794100 (Control)
	IGP		0832-2732218 (Office), 2700142 (Control)

District Authority		North Goa	South Goa
District Emergency Operation Centre (24x7)		0832-2225383 0832-2426578	0832-2794100
Taluka-Level Control Rooms			
Tiswadi (Panaji)	0832-2225383 0832-2426578	Salcete	0832-2794100
Bardez	0832-2262210	Mormugoa	0832-2513014 8793043014
Bicholim	7709136535	Ponda	0832-2312121 8766563700
Pernem	0832-2201223 9067910323	Quepem	0832-2662228 9588427336
Sattari	0832-2374090	Dharbandora	8263825335
Sanguem	0832-2604232 7822069067	Canacona	9272057863
Deputy Collector (Disaster Mgt)	0832-2225383	Addi Collector-I	9422056976

KARNATAKA STATE

SR. No.	DESIGNATION	TELEPHONE NO.
1	Chief Secretary, Karnataka	080-22252442, Fax-080-22258913

DISTRICT ADMINISTRATION

DISTRICT	DESIGNATION	JURISDICTION	TELEPHONE NO.
North Karnataka	District Collector, Karwar	Asnoti to Bhatkal	08382-226303 (Office), 229857 (Control)
	CEO/ZP		08382-226470, 226560 (Office), 8277237100 (Control)
Udupi	District Collector, Udupi	Bhatkal to Padubidri	0820-2574924 (Office), 2574802 (Control)
	District S.P.		0820-2534777 (Office), 9480805400 (Control)
South Karnataka	District Collector, Mangalore	Padubidri to Tokur	0824-2220588 (Office)
	District S.P.		0824-2220503 (Office), 2220508, 2220800

Authority	Uttara Kannada (Karwar)	Udupi District	Dakshina Kannada (Mangaluru)
Control Room	08382-229857	0820-2574802	0824-2220306
WhatsApp	9483511015	--	9449007722
Toll-free	08382-1077	0820-1077	0824-1077

STATE EMERGENCY NUMBERS

Authority	Maharashtra	Goa	Karnataka
State Emergency Operation Centre (SEDC) State Disaster Management Authority	022-22027990	--	080-22340676
Control Room (24x7) Disaster Management Cell	9321587143	0832-2419550	080-22251958 080-22251496

NATIONAL EMERGENCY NUMBERS

Authority	Numbers
Police / Emergency Services	112 / 100
Ambulance	108 / 102
Child Helpline	1098
Woman Helpline	1091
Fire Service	101
Disaster Relief	1070

Contact numbers of State Bus Regional Depots & Depot In-charge

KARNATAKA STATE (KSRTC)

Chief Traffic Manager		7760990555
Central Office Control Room (24x7)		7760990100, 7760990560
Help Line (24x7)		080-26252625
MANGALURU DIVISION		
Divisional Controller	7760990700	From Thokur Railway Station to Shiroor Railway Station
Divisional Traffic Officer	7760990702	
Assistant Traffic Manager	7760990711	
MANGALURU DEPOT		
Depot Manager I	7760990713	Thokur, Surathkal, Mulki & Nandikoor
Depot Manager II	7760990714	
Mangaluru KSRTC Bus stand (24x7)	7760990720	
UDUPI DEPOT		
Depot Manager	7760995407	Padubidri, Innanje, Udupi, Barkur
Assistant Traffic Superintendent	7760994451	
Udupi KSRTC Bus stand (24x7)	9663266400	
KUNDAPURA DEPOT		
Depot Manager	7760990717	Kundapura, Senapura, Bijoor, Byndoor & Shiroor
Assistant Traffic Superintendent	7760990731	
Kundapura KSRTC Bus stand (24x7)	9663266009	
SIRSI DIVISION		
Divisional Controller	7760991700	From Bhatkal Railway Station to Asnoti Railway Station
Divisional Traffic Officer	7760991702	
Help Line (24x7) HUBBALLI Region	7760991555	
BHATKAL DEPOT		
Depot Manager	7760991729	Bhatkal, Murudeshwar, Manki
Assistant Traffic Superintendent	9740703200	
Bhatkal KSRTC Bus stand	7795984171	
KUMTA DEPOT		
Depot Manager	7760991726	Honnavar, Kumuta, Mirjan
Asst. Traffic Superintendent / Traffic Inspector	8197598033	
Kumta KSRTC Bus stand (24x7)	7760991730	
ANKOLA DEPOT		
Depot Manager	7338039284	Gokarna, Ankola, Harawada
Assistant Traffic Superintendent	8618471959	

Ankola KSRTC Bus stand (24x7)	7795984174	
KARWAR DEPOT		
Depot Manager	7760991727	Karwara, Asnoti
Assistant Traffic Inspector	9972340359	
Karwar KSRTC Bus stand	7795984170	

GOA STATE (KTC)

Divisional Traffic Officer (Vasco)	9423885326
Divisional Traffic Officer (Porvorim)	9422059820
Assistant Traffic Superintendent	9226077946, 8390086509
Help Line (24x7)	0832-2438034

MARGO DEPOT		
Assistant Depot Manager	9158304826	Loliem, Canacona, Balli, Madgaon
Margo KTC Bus stand (24x7)	9226582245	
VASCO DEPOT		
Depot Manager	8806454891	Majorda, Verna
Vasco KTC Bus stand (24x7)	9226582246	
PANAJI DEPOT		
Assistant Depot Manager	9823226833	Karmali
Panaji KTC Bus stand (24x7)	9226582250	
PORVORIM DEPOT		
Depot Manager	8390143445	Thivim, Pernem
Mapusa KTC Bus stand (24x7)	9226582252	

MAHARASHTRA STATE (MSRTC)

Help Line (24x7)	022-23885581, 23009888, 23092555, 33006671	
ROHA DEPOT		
Depot Manager	8329919400	Kolad
MANGAON DEPOT		
Depot Manager	9503287914	Indapur, Mangaon, Goregaon Road.
Mangaon MSRTC Bus stand Incharge	7276135354	
MAHAD DEPOT		
Depot Manager	7721029939	Veer, Sape Wamane, Karanjadi, Vinhere.
Mahad MSRTC Bus stand Incharge	9021084893	
KHED DEPOT		
Depot Manager	8779875696	Diwankhavati, Kalambani-Budruk, Khed, Anjani Road.
Khed MSRTC Bus stand Incharge	8329615065	
CHIPLUN DEPOT		
Depot Manager	9860049925	Chiplun, Kamathe, Sawarda, Aravali Road.
Chiplun MSRTC Bus stand Incharge	9404308672	
DEVRUKH DEPOT		
Depot Manager	7350515544	Aravali Road, Kadavai, Sangameshwar Road.
Devrukh MSRTC Bus stand Incharge	7776995225	
RATNAGIRI DEPOT		
Depot Manager	7588193774	Ukshi, Boke, Ratnagiri.
Ratnagiri MSRTC Bus stand Incharge	9420451617	
LANJA DEPOT		
Depot Manager	9511800367	Nivasar, Adavali, Veravali, Vilavade.
Lanja MSRTC Bus stand Incharge	9422376081	
RAJAPUR DEPOT		
Depot Manager	8308457469	Rajapur Road.
Rajapur MSRTC Bus stand Incharge	9604331352	
KANKAVALI DEPOT		
Depot Manager	9370464319	Kharepatan Road, Vaibhavwadi Road, Achirne, Nandgoan Road, Kankavali.
Kankavali MSRTC Bus stand Incharge	8830313471	
KUDAL DEPOT		
Depot Manager	9960399089	Sindhudurga, Kudal, Zarap.

Kudal MSRTC Bus stand Incharge	9422062949	
SAWANTWADI DEPOT		
Depot Manager	9823373071	Sawantwadi Road, Madure.
Sawantwadi MSRTC Bus stand Incharge	9309805852	

TELEPHONE NUMBERS OF BUS STANDS

SN	Name of Station	Nearest ST Stand	Telephone number
1	Kolad	Roha	02194-232217 / 232447, 8329919400
2	Indapur	Mangaon	7276135354
3	Mangaon	Mangaon	7276135354
4	Goregaon Road	Mangaon	7276135354
5	Veer	Mahad	9021084893
6	Sape wamane	Mahad	9021084893
7	Karanjadi	Mahad	9021084893
8	Vinhere	Mahad	9021084893
9	Diwankhavati	Khed	8329615065
10	Kalambani	Khed	8329615065
11	Khed	Khed	8329615065
12	Anjani	Khed	8329615065
13	Chiplun	Chiplun	9404308672
14	Kamathe	Chiplun	9404308672
15	Savarde	Chiplun	9404308672
16	Aravali Road	Devrukh	7776995225
17	Kadvai	Devrukh	7776995225
18	Sangameshwar	Devrukh	7776995225
19	Ukshi	Ratnagiri	9420451617
20	Bhoke	Ratnagiri	9420451617
21	Ratnagiri	Ratnagiri	9420451617
22	Nivasar	Lanja	9422376081
23	Adavali	Lanja	9422376081
24	Veravali	Lanja	9422376081
25	Vilawade	Lanja	9422376081
26	Rajapur Road	Rajapur	9604331352
27	Kharepathan	Kankavali	8830313471
28	Vaibhavwadi	Kankavali	8830313471
29	Achirane	Kankavali	8830313471
30	Nandgaon Road	Kankavali	8830313471
31	Kankavali	Kankavali	8830313471
32	Sindhudurg	Kudal	9422062949
33	Kudal	Kudal	9422062949

SN	Name of Station	Nearest ST Stand	Telephone number
34	Zarap	Kudal	9422062949
35	Sawantwadi Road	Sawantwadi	9309805852
36	Madure	Sawantwadi	9309805852
37	Pernem	Kadamba Pernem	9226582250
38	Thivim	Kadamba, Mapusa	9226582252
39	Karmali	Kadamba, Panjim	08322438034
40	Verna	Kadamba, Margoa	09822933147
41	Majorda	Kadamba, Margoa	09822933147
42	Madgaon	Kadamba, Margoa	09822933147
43	Balli	Balli, Cuncolim	09822933147
44	Canacona	Canacona, Chavadi	0832-2643339
45	Loliem	Bus Stand Karwar	08382-226315
46	Asnoti	Bus Stand Karwar	08382-226315, 7760991727
47	Karwar	Karwar	08382-226315 ,7760991727
48	Harwada	Ankola	7760991730
49	Ankola	Ankola	08388-230237, 7760991730
50	Gokarna	Gokarna	7760991730
51	Mirjan	Bus Stand Kumta	7760991730
52	Kumta	Kumta	7760991730
53	Honnavar	Honnavar	9880380253
54	Manki	Murdeshwar	9620625718
55	Murdeshwar	Murdeshwar	9620625718
56	Bhatkal	Bhatkal	08385-226444
57	Shiroor	Bhatkal	08385-226444
58	Mookambika	Bhatkal	08385-226444
59	Bijoor	Kundapur	08254-230915
60	Senapura	Kundapur	08254-230915
61	Kundapura	Kundapur	08254-230915
62	Barkur	Udupi	0820-2526243, 7760995407
63	Udupi	Udupi	0820-2526243, 7760995407
64	Innanje	Udupi	0820-2526243, 7760995407

SN	Name of Station	Nearest ST Stand	Telephone number
65	Padubidri	Udupi	0820-2526243, 7760995407
66	Nandikur	Udupi	0820-2526243, 7760995407
67	Mulki	Mangalore	0824-2211243
68	Suratkal	Mangalore	0824-2211243
69	Thokur	Mangalore	0824-2211243
70	HPCT	Mangalore	0824-2211243

TELEPHONE NUMBERS OF NON-GOVT. ORGANIZATION'S IN RATNAGIRI REGION

SR. NO.	NAME OF NGO	TELEPHONE NUMBER
1	Anand Bhuvan, Mangaon.Shri. Anand Yadav	9422494022
2	Madat Foundation, Khed. Shri.Prasad D. Gandhi	9226999384
3	Madat Foundation, Khed. Shri. Buhran Tanke	9028383751
4	Lions Club, Chilplun, Shri.Relekar	9422429917
5	Rotary Club, Chiplun. Shri. Sanjay Mehta, Amburle	9420604022
6	G P A (Mr. Shekar Chittale) Ratnagiri	9823120057
7	Rotary Club, Kankavali. Shri. Dipak Belvalkar	9422434501
8	Lions Club, Kudal, Shri. Nayan Bhange	9422055350
9	Lions Club, Sawantwadi. Shri. N. N. Deshpande.	9422054887

NON-GOVT. ORGANIZATION ON KR ROUTE IN GOA

SR. NO.	NAME OF NGO	TELEPHONE NUMBER
1	Smile Foundation C-12, Chamunda Endave Bondir Santa Cruz, Tiswali Goa	9404432365
2	Amar Bharati Gram Vikas Sanstha, Anandi Rajput Niwas, Near Rotary House, Vasudev Nagar (Jogiwada), Bicholim, Goa	9247352663
3	All India Womens Conference, Institute Menezes Braganza, Panaji - Goa 403001	9881886822
4	Peaceful Society, Honsowado post: Kundai 403 115 South Goa	9527122528
5	Satguru Foundation, Tapobhoomi, Opposite Kundaim Industrial Estate, Kundaim, Ponda Goa	9923133238

NON-GOVT. ORGANIZATION ON KR ROUTE IN KARNATAKA

SR. NO.	NAME OF NGO	TELEPHONE NUMBER
1	Kalpana Rashmi Kalaloka, Karwar	9448105291
2	Rotary Club, Gokarna	08386-256239
3	Lions Club, Kumta	08386-223368
4	Anjuman Hami E Muslimeen, Bhatkala	9448629398
5	Bharathiya Vikas Trust, Shivalli, Udupi	9886943717
6	Sampada Udupi, Bishops House, Udupi	9448158852
7	Kerekatte Prasanna Charitable Trust	9448502929
8	Prajna Counselling Centre, Kankanady	9343567445

TELEPHONE NUMBERS OF AMBULANCE INFORMATION

SR.	AVAILABLE STATION	NAME OF AMBULANCE	TELEPHONE NUMBERS
1	ROHA	Ambulance	108
2	KOLAD	Ambulance	108
3	INDAPUR	Anil, Satpute Meghanath	7775809564, 9970265181
4	MANGAON	RAM Palkar Sub -Dist hospital /Mangaon	8390826197 / 9561808022 02140-263006 / 9273613400
5	GOREGAON ROAD	Sub -Dist hospital /Mangaon	02140-263006 / 9273613400
6	VEER	Ambulance, Mahad	02145-222127, 223047, (108)
7	SAPE WAMANE	Ambulance	9822169226, 9822119226, 8698301717, 7744847525, 7875344014, 8806069463
8	KARANJADI	Ambulance	9822169226, 7744847525, 8806069463
9	VINHERE	Ambulance, Mahad	02145-222127, 223047, (108)
10	DIWANKHAVATI	Khed,	02356-264510, (108)
11	KALAMBANI	Ambulance, KHED	8433798454, 9226999384, (108)
12	KHED	Royal Ambulance/Khed Prasad Gandhi	02356-264510 / 9823990990 9850383751/922699384/9028383751
13	ANJANI	Ambulance - Anjani	8433798454, 9226999384, (108)
14	CHIPLUN	Siddha Kala Ambulance Service/Chiplun	9975838515
15	KAMATHE	Taluka Rural Hospital District Civil Hospital, Ratnagiri Walawalkar Hospital, Dervan	9421517305, 9657757434 8975522667, 9850741450 9657510149
16	SAVARDA	KMAH	02355-252628, (108)
17	ARAVALI ROAD	PHC, Savarda	9423049243, 8208857840
18	KADVAI	District Civil Hospital, Ratnagiri	8975522667, 9850741450
19	SANGAMESHWAR	Govt. Civil Hospital, Ratnagiri	02352-223570
20	UKSHI	Govt. Civil Hospital, Ratnagiri	02352-223570
21	BHOKE	Govt. Civil Hospital, Ratnagiri	02352-223570
22	RATNAGIRI	Ambulance: 02352-223570, (108)	9422631050, 9422595320, 9403509794
23	NIVASAR	Govt. Civil Hospital, Ratnagiri	02352-223570
24	ADAVALI	Ambulance	8668540904, (108)
25	VERAVALI	Govt. Civil Hospital, Ratnagiri	02352-223570
26	VILAWADE	Govt. Civil Hospital, Ratnagiri	02352-223570
27	RAJAPUR	Damodar Gadgil	9422421073
28	KHAREPATHAN	Sub Dist.Hospital/KKW	02367-232058

SR.	AVAILABLE STATION	NAME OF AMBULANCE	TELEPHONE NUMBERS
29	VAIBHAVWADI	Ambulance	8108755861, 9423405035, 8605030659
30	ACHIRNE	Ambulance	8087852254, 9403638935, (108)
31	NANDGAON	Kankavali	02367-232058 / 233959
32	KANKAVALI	Govt. Ambulance, Kankavali Sanjeevani Hospital Kankavali	02367-232058 / 233959 02367-231390 / 9422596800
33	SINDHUDURG	ORAS	02362-228901, (108)
34	KUDAL	Shiddivinayak Hospital	9423303323 / 7066903323
		Ambulance KUDL	02362-222483 / 228900
35	ZARAP	Ambulance Service	108
36	SAWANTWADI	Ayurdvedic Hospital, Sawantwadi Cottage Hospital, Sawantwadi	02363-272085 02363-272062
37	MADURE	Sawantwadi	02363-270295, (108)
38	PERN	108 Ambulance Service	108
39	THIVIM	Asilo Govt. Hospital	0832-2262372, 2262211, 2655119
40	KARMALI	108 Ambulance Service	108
41	VERNA	PHC Cansaulim Taluka & District Civil Hospital	0832-2754036, 9011025064 0832-2711288, 9011025065
42	MAJORDA	Hospicio Hospital, Margao Victor Hospital	0832-2727423, 2727300 0832-6728888, (108)
43	MADGAON	Govt. Medical Collage, Grace Cardic & General Hospital, Royal Hospital	0832-2458725, 2458724, 0832-2725392, 2725391 0832-2737744, 2737722
44	BALLI	P H C Balli Victor Hospital	0832-2670965, 2670216, (108) 0832-6728888, 2726090
45	CANCONA	Health Center Cancona	0832-2643339, 2643422
46	LOLIEM	Govt. Civil Hospital, Karwar	08382-226319, (108)
47	ASNOTI	Govt. Civil Hospital, Karwar	08382-226319, (108)
48	KARWAR	Govt. Civil Hospital, Karwar	08382-226319, (108)
49	HARWADA	Govt. Hospital, Ankola	08388-230249, (108)
50	ANKOLA	Kamala Medical Center, Ankola, CMA Hospital, Ankola, Govt. Hospital, Ankola,	08388-231853, 08388-230287, 08388-230219, (108)
51	GOKARNA ROAD	108 Ambulance Service, Hiregutti.	108
52	MIRJAN	Govt. Hospital, Kumta,	08386-222021, (108)
53	KUMTA	Govt. Hospital, Kumta,	08386-222021, (108)
54	HONNAVAR	Ambulance Service (108)	08387-220297, 220345, 236090
55	MANKI	Ambulance Service	108
56	MURDESHWAR	Ambulance Service	108, 112
57	BHATKAL	Govt. Hospital Bhatkal,	08385 -226460, (108)
58	SHIROOR	Govt. Hospital Bhatkal,	08385 -226460, (108)

SR.	AVAILABLE STATION	NAME OF AMBULANCE	TELEPHONE NUMBERS
		Ambulance, Bhatkal	08385 -226835, 227235
59	MOOKAMBIKA RD BYNDOOR	Anjali Nursing Home, Byndoor	08254-251805, (108)
60	BIJOOR	Anjali Nursing Home, Byndoor	08254-251805, (108)
61	SENAPURA	Govt. Hospital, Kundapur	08254-234808, (108)
62	KUNDAPURA	Ambulance Service	108
63	BARKUR	Ambulance Service	108
64	UDUPI	KMC - Manipal	0820-2575555
65	INNANJE	Ambulance	6366156486, (108)
66	PADUBIDRI	Ambulance	Ambulance Service 108
67	NANDIKUR	108 Ambulance Service	Ambulance Service 108
68	MULKI	PHC, Mulki	9739628627, (108)
69	SURATKAL	Wenlock, Govt. Hospital, Mangalore NMPT Hospital, Panambur Father Muller Hospital, Mangalore	0824-2425038; 0824-2413208 0824-2407448 0824-2238000, (112)
70	THOKUR	Wenlock, Govt. Hospital, Mangalore NMPT Hospital, Panambur Father Muller Hospital, Mangalore	0824-2425038; 0824-2413208 0824-2407448 0824-2238000, (108)
71	THOKUR YARD	Wenlock, Govt. Hospital, Mangalore NMPT Hospital, Panambur Father Muller Hospital, Mangalore	0824-2425038; 0824-2413208 0824-2407448 0824-2238000, (108)

TELEPHONE NUMBERS OF HOSPITALS NEAR STATION

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
1	Roha	Alibag Dr. Pravin Bagul Jadhav Hospital	270 16	70 Km 2 Km	02194-233232	9769644490
2	Kolad	Alibag Dr. Pravin Bagul	270	80 Km		9769644490
3	Indapur	Civil (Rural) Hospital			02140- 263006	9273613400
4	Mangaon	Shinde Hospital Mangaon Civil (Rural) Hospital	20 20	02 Km	 02140- 263006	9422494110 8007314979 9273613400
5	Goregaon Road	Civil Hospital			02140- 263006	9273613400
6	Veer	Ranade Hospital Nagarkar Accident Hospital Dabhadkar Hospital	15	05 Km	8888320711 9049324321	8766414434 9420644675 9422691791
7	Sape Wamane	Ranade Hospital Dr. Parkar Hospital Neu Life Hospital	15 20	07 Km 07 Km	8888320711 7058701917	8766414434 8793425992 9822837312
8	Karanjadi	Ranade Hospital Neu Life Hospital	15 20	12 Km 12 Km	8888320711	8766414434 9822837312
9	Vinhere	Dindayal Hospital	02	03 Km		9423341566
10	Diwankhavati	Dhariya Hospital Wakure Hospital / Khed	18 04	15 Km 18 Km	 02356-263349	9423341566
11	Kalambani	Taluka Hospital Kalambani			9970118959	
12	Khed	Dr. Sanjiv. Dhariya SMS Hospital	08 25	03 Km 2.5 Km	02356-263739	 7218877070
13	Anjani	PHC Taluka Hospital Kalambani				9822310332 9970118959
14	Chiplun	Life care Hospital Shraddha Hospital Tulip Hospital	100 20 10	07 Km 05 Km 04 Km		9130025414 7798090680 7590903333
15	Kamathe	Life care Hospital Shraddha Hospital Tulip Hospital	100 20 10	07 Km 05 Km 04 Km		9130025414 7798090680 7590903333
16	Savarda	PHC, Savarda Sanjeevani Hospital	04 08	05 Km 05 Km	8208857840	9423049243 9422054112
17	Aravali Road	PHC, Makhjan PHC, Savarda	15 04	09 Km 25 Km	 9423049243	9423232395 8208857840
18	Kadvai	Civil Hospital Ratnagiri			02352- 223570	
19	Sangameshwar	Dr. Mulye District Hospital, Ratnagiri	15 200	15 Km 45 Km	 02352-223570	9657257527

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
20	Ukshi	Civil Hospital Ratnagiri	200	35 Km	02352-223570	
21	Bhoke	Civil Hospital Ratnagiri	200	21 Km	02352-223570	
22	Ratnagiri	Parkar Hospital Ramnath Lotlikar Hospital District Hospital Ratnagiri	60 17 200	05 Km 5.5 Km 08 Km	02352-222942 02352-221195 02352-223570	 9225818181
23	Nivsar	Civil Hospital Ratnagiri Dr. More PAC Chaderai	200 07	15 Km 03 Km	02352-223570	 9403235038
24	Adavali	District Hospital Taluka Hospital, Lanja Dr. A T Patki Swami Samarth Hospital, Lanja	200 05	 11 Km	02352- 223570	 8668540904 7391920021 9028210724 9021169408
25	Veravali	Dist. Civil Hospital Ratnagiri	200	60 Km	02352-223570	
26	Vilavade	Dist. Civil Hospital Ratnagiri Din Dayal hospital, Lanja	200 50	65km 18 Km	02352-223570 02351-230499	
27	Rajapur	Joshi Hospital Rural hospital Rajapur Dr. Bavkar P.S. Rajapur Dist. Civil Hospital	16 30 05 200	16 Km 18 Km 18 Km 75 Km	02353-222057 02353-222173 02353- 222162 02352/223570	
28	Kharepathan	Sub Dist Hospital Kankavali			02367-232058	8888764188 (Dr. Ubale)
29	Vaibhavwadi Rd.	Marathe Hospital Rural Hospital, Vaibhavwadi	15	06 Km	9960409165 (Dr. Narote)	9405225097
30	Achirne	Rural Hospital, Vaibhavwadi	15	12 Km	9960409165 (Dr. Narote)	
31	Nandagaon	Sanjivani Hospital	10	21 Km		9422596800 9404120806
32	Kankavali	Sanjivani Hospital Dr. Nagvekar Hospital Gurukripa Hospital Shelke Hospital	10 50 30 16	01 Km 2.5 Km 02 Km 01 Km	 02367-232507 / 232909 02367-233012	9422596800 9404120806 9422434505 9637098370
33	Sindhudurga	PHC, Kasal Dr. Kolte	 17	 08 Km		7620048588 9158613898
34	Kudal	Akerkar Hospital Sumati Hospital Parab Hospital	20 10 14	03 Km 03 Km 02 Km	02362-221376/ 221485 02362-222917 02362- 222722	9422054676 9422054917 8698976761
35	Zarp	Dist. Civil Hospital, Oras Parab Hospital, Kudal Sumati Hospital, Kudal.	200 14 10	25 Km 10 Km 10 Km	02362-228900 / 228901 02362- 222722	 8698976761

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
					02362-222917	
36	Sawantwadi Rd.	Taluka Rural Hospital, SWV Rani Janki Bhai Hospital Sai Hospital, Sawantwadi Yashoda Ortho Hospital	50 100 50 10	08 Km 08 Km 08 Km 08 Km	02363-275035, 272062 02363-272037 / 272085 02363-274631 / 02363-275286	9422054932
37	Madure	Taluka Rural Hospital, SWV	50	18 Km	02363-272062 / 275035	
38	Pernem	District Hospital, Mapusa GMC, Goa Vision Hospital	145 1200 60	14 Km 31 Km 08 Km	0832-2262372, 2253387 0832-2458700-16 0832-2266188, 2266788	7744996688
39	Thivim	Dhumaskar Hospital District Hospital, Mapusa GMC, Goa Vision Hospital	11 145 1200 60	03 Km 08 Km 26 Km 06 Km	0832-2298592 0832-2262372, 2253387 0832-2458700-16 0832-2266188, 2266788	9822747467 7744996688
40	Karmali	Health Way Hospital GMC Hospital	160 1200	02 Km 14 Km	0832-2467666 0832-2458700-16	7030961249
41	Verna	GMC Hospital	1200	28 Km	0832-2458700-16	
42	Majorda	Appollo Hospital	150	08 Km	0832-6728888 / 2726090	
43	Madgaon	GMC Hospital Victor Hospital Margao Grace ICCU & General Royal Hospital	1200 150 65 48	32 Km 0.5 Km 04 Km 03 Km	0832-2458700-16 0832-6728888, 8888884718 0832-2725392, 2725391 0832-2735773	
44	Balli	Victor Hospital	120	13 Km	0832-6728888, 8888884718	
45	Canacona	Dr. Bhushan Pawaskar		01 Km		9373269726

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
		Community Health Centre	70	03 Km		9011025067
46	Loliem	Govt. Civil Hospital, Karwar	400	15 Km	08382-226731, 226319	
47	Asnoti	Govt. Hospital, Karwar	400	08 Km	08382-226731, 226319	
48	Karwar	Govt. Hospital	400	10 Km	08382-226731, 226319	
		Guru Krupa Nursing Home	100	09 Km	08382-225131	9449453240
		Maria Magno Flora	24	03 Km	08382-200769	9901951055
		New Nursing Home	30	16 Km		7411061334
49	Harwada	Govt. Hospital	400	22 Km	08382-226731, 226319	
50	Ankola	CMA Hospital	10	03 Km	08388-232519	
		Kamala Medical Centre	100	03 Km		8277520000
		Arya Medical Centre	22	03 Km	08388-230570	
51	Gokarna Road	Kamala Medical Centre	100	15 Km		8277520000
		Vinayaka Clinic, Gokarna	05	08 Km		9448153693
		Govt. Hospital, Kumta	50	28 Km	08386-222021	9449136601
52	Mirjan	Govt. Hospital, Kumta	50	05 Km	08386-222021	9449136601
53	Kumta	Govt. Hospital	50	2.5 Km	08386-222021	9449136601
		Achut Pandit Hospital	30	2.5 Km	08386-222031	
		Kumta Nursing Home	15	1.5 Km	9148515945 (Dr. Vikram H)	
		Hi-Tech Hospital	20	1.5 Km	08386-222245	9448065768
54	Honnavar	Govt. Hospital, Honnavar, Shridevi Metarnity Centre	50	07 Km	08387-220297	
			100	07 Km	08387-220430	
55	Manki	RNS Hospital, Murudeshwar	100	8.5 Km	08385-268026	9945966042
		Ganesh Clinic	10	04 Km		9448153453

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
56	Murudeshwar	RNS Hospital, Murdeshwar	100	0.5 Km	08385-268026	9945966042
		PHC, Bailur	06	05 Km		8272506092
57	Bhatkal	Govt. Hospital, Bhatkal	40	03 Km	08385-226460	7551119988
		Welfare Hospital	35	02 Km	08385-226368	
		RNS Hospital, Murdeshwar	100	15 Km	08385-268026	9945966042
58	Shiroor	PHC, Shiroor	3	03 Km	08254-253502	
		Anjali Nursing Home, Byndoor	30	10 Km	08254-251805	
		Community Health Centre, Byndoor	30	10 Km	08254-251036	
59	Mookambika Road Byndoor	Community Health Centre, Byndoor	30	01 Km	08254-251036	
		Anjali Hospital, Byndoor	20	01 Km	08254-251805	
60	Bijoor	Community Health Centre, Byndoor	30	06 Km	08254-251036	
		Anlali Nursing Home, Byndoor	30	05 Km	08254-251805	
61	Senapura	Vinay Hospital, Kundapura	75	19 Km	08254-230368	7996273845
		Adarsh Hospital	36	18 Km	08254-230580	9341145014
		Chinmaya Hospital	70	20 Km	08254-232243	6361631900
		Manjunath Hospital	50	19 Km	08254-230515	8951626025
62	Kundapura	Vinay Hospital, Kundapura	75	05 Km	08254-230368	7996273845
		Adarsh Hospital	36	05 Km	08254-230580	9341145014
		Chinmaya Hospital	70	05 Km	08254-232243	6361631900
		Manjunath Hospital	50	05 Km	08254-230515	8951626025
		Shri Devi Nursing Home	50	05 Km	08254-230066	9449033172
63	Barkur	PHC Brahmavar	50	06 Km	0820-2561300	

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
		Mahesh Hospital	100	06 Km	7259862056	9449835256
64	Udupi	KMC Manipal	2032	03 Km	0820-2571201	
		Mitra Hospital	200	04 Km	0820-2520828	
		Gandhi Hospital	100	03 Km	0820-2525525	
		City Hospital	100	03 Km	0820-2536701	
		TMA Pai Hospital	210	04 Km	0820-2526102	
65	Innanje	Prashanth Hospital	20	07 Km		8296715018
		PHC Kaup	06	05 Km	0820-2551618	
		TMA Pai Hospital	210	12 Km	0820-2526102	
66	Padubidri	PHC Padubidri	4	10 Km	0820-2555214	8277505960
		Prashanth Nursing Home, Kaup	25	07 Km		8296715018
67	Nandikoor	Siddivinayak Hospital	12	10 Km	0820-2555633	9845243339
		PHC Hospital, Padubidri	04	10 Km	0820-2555214	8277505960
68	Mulki	Primary Health Centre	50	05 Km		9739828627
		Shrinivas Hospital, Mukka	430	05 Km	0824-2478586	6364439407
		Mulki Nursing Home	25	05 Km	9845473500 (Dr. Arun. K)	0824-2290517
69	Suratkal	Shrinivas Hospital, Mukka	408	10 Km	0824-2478586	6364439407
		Father Muller Hospital, Mao	1250	20 Km	0824-2238000	
		NMPT Hospital, Panambur	30	06 Km	0824-2407448	8296845754
70	Thokur	NMPT Hospital, Panambur	30	4.5km	0824-2407448	8296845754
		KMC Hospital, Attavar	610	20 Km	0824-2445858	
		Father Muller Hospital, MAQ	1250	22 Km	0824-2238000	
		KMC Hospital, Mangalore	251	20 Km	0824-2444590-98	
71	HPCT Thokur	NMPT Hospital,	30	6.5km	0824-2407448	8296845754

SN	Station	Name of Hospital	Beds	Distance	Telephone number	Mobile Number
		Panambur	610	21 Km	0824-2445858	
		KMC Hospital, Attavar	1250	21 Km	0824-2238000	
		Father Muller Hospital, MAQ	251	21 Km	0824-2444590, 2865000	
		KMC Hospital, Mangalore				

TELEPHONE NUMBERS OF LOCAL ADMINISTRATION

SN	RAILWAY STATION	POLICE STATION	FIRE STATION	THASHILDAR
1	KOLAD	8999850776	02194-263600 / 263300	02194-233222
2	INDAPUR	02140-263005 / 9146020105	02194-263600 / 263300	02140-262632, 222001
3	MANGAON	02140-263005 / 9146020105	02145-232405 / 223301	02140-262632, 222001
4	GOREGAON ROAD	02140-250299	02145-232405 / 223301	02140-262632, 222001
5	VEER	02145-222254	02145-232405 / 223301	02145-224394, 8669697373
6	SAPE WAMANE	02145-222254	02145-232405 / 223301	02145-224394, 8669697373
7	KARANJADI	02145-222254	02145-232405 / 223301	02145-224394, 8669697373
8	VINHERE	02145-222254	02145-232405 / 223301	02145-224394, 8669697373
9	DIWANKHAUTI	02356-263333	02356-273000 / 272900, (101)	02356-263031
10	KALAMBANI	02356-263333	02356-273000 / 272900, (101)	02356-263031
11	KHED	02356-263333	02356-273000 / 272900, (101)	02356-263031
12	ANJANI	02356-263333	02356-273000 / 272900, (101)	02356-263031
13	CHIPLUN	02355-252333	02355260031 / 250101(101)	02355-252044
14	KAMATHE	02355-252333	02355-26003 / 250101(101)	02355-252044
15	SAVARDA	02355-264033	02355-26003 / 250101(101)	02355-252044
16	ARAVALI ROAD	02354-272033	02354-220101 / 260031	02354-240024
17	KADVAI	02354-272033	02352-220101	02354-240024
18	SANGMESHWAR	02354-272033	02352-220101	02354-240024
19	UKSHI	02352-230133/ 222333	02352-220101	02352-223127
20	BOKE	02352-230133/222333	02352-220101	02352-223127
21	RATNAGIRI	02352-222333, 230133	02352-228540 / 228550	02352-223127
22	NIVSAR	02351-230033/ 02352-230133	02352-220101 / 222310	02352-223127
23	ADAVALI	02351-230033	02352-220101 / 222310	02351-230024
24	VERAVALI	02351-230033	02352- 222310	02351-230024
25	VILAVADE	02351-230033	02353-222039	02351-230024
26	RAJAPUR ROAD	02353-222033	02353-222039	02353-222027
27	KHAREPATHAN	02367-237133	02367-232007	02367-232025
28	VAIBHAVWADI ROAD	02367-237133	02367-232007	02367-237239

SN	RAILWAY STATION	POLICE STATION	FIRE STATION	THASHILDAR
29	ACHIRNE	02367-237133, 232033	02367-232007	02367-237239
30	NANDGAON ROAD	02367-232033	02367-232007	02367-232025
31	KANKAVALI	02367-232033	02367-232007	02367-232025
32	SINDHUDURG	02362-228888	02362-223178 / 223278	02362-222525
33	KUDAL	02362-222533	02362-223178 / 223278	02362-222525
34	ZARAP	02362-222533	02362-223178 / 223278	02362-222525
35	SAWANTWADI	02363-272066	02363-272044 / 272588	02363-272028
36	MADURE	02363-270233	02363-272044 / 272588	0832-2201411
37	PERNEM	0832-2201233	0832-2201201	0832-2201411
38	THIVIM	0832-2706048	0832-2262900	0832-2362237
39	KARMALI	0832-2782325	0832-2285344	0832-2362237
40	VERNA	0832-2782325	0832-2887721	0832-2362237
41	MAJORDA	0832-2782325	0832-2887085	0832-2794111
42	MADGAON	0832-2705095	0832-2887085	0832-2794111
43	BALLI	0832-2705095	0832-2887085	0832-2794111
44	CANCONA	0832-2643357	0832-2633311	0832-2643329
45	LOLIEM	0832-2643357	0832-2633311, 2643311	0832-2643329
46	ASNOTI	08382-222443	08382-226655	08382-226331
47	KARWAR	08382-226333	08382-226655	08382-226331
48	HARWADA	08388-230333	08388-230888,	08388-230243
49	ANKOLA	08388-230433	08388-226655, 08382-226655	08388-230243
50	GOKARNA ROAD	08386-256133	08388-230888,	08386-222054
51	MIRJAN	08386-222333	08386-224567	08386-222054
52	KUMTA	08386-222333	08386-222021	08386-222054
53	HONNAVAR	08387-220248	08387-220888	08387-220262
54	MANKI	08387-257886	08387-257760	08387-220262
55	MURUDESHWAR	08385-268896	08387-224567	08385-226422
56	BHATKAL	08385-226333	08385-222140, (101)	08385-226422
57	SHIROOR	08254-251033	08385-222140, (101)	08254-251657
58	BYNDOOR	08254-251033	08254-251101, 230724	08254-251657
59	BIJOOR	08254-251033	08254-251101, 230724	08254-251657
60	SENAPURA	08254-265333	08254-230724	08385-230357
61	KUNDAPUR	08254-230338	08254-230724	08254-230357
62	BARKUR	0820-2561044	0820-2520333	0820-2520417
63	UDUPI	0820-2520444	0820-2520333	0820-2560494
64	INNANJE	0820-2520444	0820-2520333	0820-2591444
65	PADUBIDRI	0820-2555452	0820-2520333	0820-2591444
66	NADIKUR	0820-2555452	0820-2520333	0824-2294496

SN	RAILWAY STATION	POLICE STATION	FIRE STATION	THASHILDAR
67	MULKI	0824-2290533	0824-2423333, 2213192	0824-2294496
68	SURATKAL	0824-2220540	0824-2423333, 2213192	0824-2220587
69	THOKUR	0824-2220540	0824-2423333, 2213192	0824-2220587
70	THOKUR YARD	0824-2220540	0824-2423333, 2213192	0824-2273432, 2273129

TELEPHONE NUMBERS OF OTHER IMPORTANT DEPARTMENTS

SN	Authority	Contact Numbers
1	Divisional Commissioner of Disaster Management Office, Konkan Division	022-27571516
2	Coastal Security, Raigad	1093
3	Indian Army – General Staff, HQ, Maharashtra	022-22151701 (Military Exchange) 7045587510, 9797488234 (Mob)
4	Navy (Civil Military Division), HQ, Maharastra – Naval	Office: - 022-22752359 Mobile: - 9869273674
5	Air Force Commandant OPS Centre	7923200967
6	Civil Defence & Home Guard, HQ – Mumbai	022-22843667
7	Coast Guard Ratnagiri	02352-224088
8	Karwar Navy Sea-Bird, Karwar	98805 99836

Oil & Petroleum Companies		
1	Institute of Oil & Gas Production Technology (IOGPT), Navi-Mumbai	022-27486000
2	Institute of Petroleum Safety, Health & Environment Management, Goa	0832-2677001; 96009 68678
3	Indian Oil Corporation Ltd, Sawarde, Chiplun	92704 31234
4	Zuvari IAV Private Limited, Sancoale	0832-255 5349
5	Indian Oil, Corporation, Limited, Vasco	99234 75757
6	Indian Oil Corporation Ltd, Kottara Chowki, Mangalore	7942696877
7	Mangalore Refinery & Petrochemicals Limited (MRPL)	0824-227 0400
8	New Mangalore Port Authority, Panambur, Mangalore	0824-2407341 (24 lines)

Air Ambulance Services		
1	Air Ambulance Services (All over India)	9820366777
2	Badri Helicopter & Air Ambulance Services, Raigad	9911895213, 7048962890
3	Panchamukhi Air Ambulance Services, Goa	9955990333
4	Vedanta Air Ambulance, Goa	9958717839
5	Garud Air Ambulance, Goa	8595608600

Tidal Information		
1	Indian National Centre for Ocean Information Services (INCOIS)	91-40-23886000
2	Data Requests Enquiry (INCOIS) - Dr. T.V.S. Udaya Bhaskar	91-40-23886048
3	Website	https://incois.gov.in/site/index.jsp

All India Radio		
1	All India Radio, Ratnagiri	7947130430
2	All India Radio, Goa	7947411260, 7947115870
3	All India Radio, Mangalore	0824-2211999, 7947430741

DIVING CLUBS

SN	Name	Location	Contact
1	MTDC's Indian Institute of Scuba Diving & Aquatic	Malvan, Sindhudurg, Maharashtra	8422822043
2	Gomantak Scuba	Sindhudurg, Maharashtra	9405256696
3	Scuba Malvan	Malvan, Sindhudurg, Maharashtra	9422853421/ 9420916495
4	Scuba Evolution India	Calangute, Baga, Goa	7261942119
5	GTDC Calangute Residency	Calangute, Goa	9810110189
6	Scuba Goa Dive	Calangute, Baga, Goa	7011217597
7	Netrani Adventure	Murdeshwar, Karnataka	9900431111 / 9916554422
8	Dolphin Dive	Bhatkal, Karnataka	8277525511
9	Aquaride	Bhatkal, Karnataka	9169993377
10	Meridian Adventure	Kundapura, Karnataka	80502 75566

DNA testing on KR route

SN	Name	Location	Contact
1	Directorate of Forensic Science Laboratories	Mumbai, Maharashtra	022-2667 0755/2667 0965/ 2667 4157
2	Assistant Director (DNA Division), FSL, Mumbai	Mumbai, Maharashtra	9422526130
3	Assistant Director, MFSL, Ratnagiri	Ratnagiri, Maharashtra	9881413245
4	Goa Forensic Science Laboratories, Verna, Goa	Verna, Goa	0832- 2782170
5	Director, Forensic Science Laboratory, Bengaluru	Bengaluru, Karnataka	080-25532910
6	Deputy Director, Regional Forensic Science Laboratories, Mangaluru	Mangaluru, Karnataka	0824-2220564 0824-2220542

Drone Rescue Team

SN	Name	Location	Contact
1	Indian Rescue Academy (Shri. SANJAY LIPANE)	Kolad	9619567918

Hearse Van Services

SN	Name	Contact
	Maharashtra	
1	Prakruthi Ambulance Services	9663054899
2	VMEDO Hearse van & mortuary transport, including freezer, AC vans	9343180000
3	Last Journey (Pan-India provider)	7827777889
	Goa	
1	A Kumar Funeral Services	70584 90993
2	Anthyesti Funeral Services	87925 63332
	Karnataka	
1	Indian Nawayat Forum (INF) Janaza Van (Bhatkal)	89719 18484
2	Mukti Rath / Hearse Van Services (Kundapura)	99902 28876
3	Paramoksha – Hearse/Mortuary Van (Kundapura)	90192 44548
4	Humanity Ambulance (Bangalore-based, covers Udupi)	74112 58525/ 74118 49394
5	Beleiv Funeral Services **(Pan-India coverage)**	99012 24122
6	Humanity Ambulance	74112 58525/ 74118 49394
7	St Joseph's Ambulance Services (Mangalore)	97437 04440
8	Beleiv Funeral Services (Mangaluru)	99012 24122
9	Mangalore Force (Hearse/Traveller Vans)	96204 48730

Approach road Maps for Stations, Level Crossing gates, Bridges and Tunnels & Cuttings are indicated in terms of Latitude and longitude as per the given table.

To access the map the user is required to open App i.e., Maps on his/her smartphone and on the search bar type the Latitude-Longitude of the desired place for example for Chiplun Station Type 17.542226, 73.522064 the pointer will be shown at Chiplun there after this the directions tab to get the road map from your current location, follow the map to reach the destination.

SN	Station	Geo Co-ordinates	
		Latitude	Longitude
1	KOLAD	18.392189	73.223666
2	INDAPUR	18.298211	73.244808
3	MANGAON	18.247809	73.275608
4	GOREGAON ROAD	18.162582	73.302927
5	VEER	18.113996	73.330670
6	SAPE WAMANE	18.058163	73.371613
7	KARANJADI	17.998609	73.404767
8	VINHERE	17.914809	73.383826
9	DIWANKHAVATI	17.855200	73.418339
10	KALAMBANI BUDRUK	17.765661	73.420691
11	KHED	17.712508	73.410497
12	ANJANI	17.621147	73.399542
13	CHIPLUN	17.542226	73.522064
14	KAMATHE	17.477830	73.516012
15	SAWARDA	17.404608	73.514945
16	ARAVALI ROAD	17.316628	73.538265
17	KADAVAI	17.265218	73.552085
18	SANGAMESHWAR ROAD	17.201704	73.546127
19	UKSHI	17.130288	73.456732
20	BHOKE	17.048905	73.380861
21	RATNAGIRI	17.003447	73.357592
22	NIVASAR	16.947475	73.454892
23	ADAVALI	16.921677	73.593114
24	VERAVALI	16.833561	73.615140
25	VILAVADE	16.785593	73.619076
26	SAUNDAL (H)	16.700939	73.619819
27	RAJAPUR ROAD	16.635591	73.627154

SN	Station	Geo Co-ordinates	
28	KHAREPATAN ROAD	16.568771	73.660833
29	VAIBHAVWADI ROAD	16.512177	73.707918
30	ACHIRNE	16.446768	73.743763
31	NANDGAON ROAD	16.387485	73.730898
32	KANKAVLI	16.259736	73.720308
33	SINDHUDURG	16.112173	73.679723
34	KUDAL	16.017334	73.677881
35	ZARAP	15.948246	73.734004
36	SAWANTWADI ROAD	15.866749	73.785273
37	MADURE	15.803822	73.812684
38	PERNEM	15.708790	73.817015
39	THIVIM	15.630128	73.876936
40	KARMALI	15.490469	73.924702
41	VERNA	15.353861	73.912815
42	MAJORDA JUNCTION	15.313526	73.922034
43	SURAVALI (H)	15.291603	73.939223
44	MADGAON JUNCTION	15.267886	73.970719
45	BALLI	15.151775	74.021387
46	CANACONA	15.006824	74.039434
47	LOLIEM	14.939598	74.088125
48	ASNOTI	14.876452	74.147646
49	KARWAR	14.820265	74.182453
50	HARWADA	14.740200	74.259373
51	ANKOLA	14.645638	74.331954
52	GOKARNA ROAD	14.583839	74.367574
53	MIRJAN	14.500559	74.424977
54	KUMTA	14.437071	74.420989
55	HONNAVAR	14.315939	74.432615
56	MANKI	14.174730	74.493810
57	MURDESHWAR	14.100752	74.505473
58	CHITRAPUR (H)	14.035659	74.536174
59	BHATKAL	13.989433	74.565805
60	SHIROOR	13.930780	74.593908
61	MOOKAMBIKA ROAD BYNDOOR (H)	13.872121	74.63268

SN	Station	Geo Co-ordinates	
62	BIJOOR	13.821905	74.642701
63	SENAPURA	13.717960	74.684575
64	KUNDAPURA	13.613313	74.728833
65	BARKUR	13.477229	74.759933
66	UDUPI	13.335940	74.770960
67	INNANJE	13.256339	74.761631
68	PADUBIDRI	13.196845	74.767877
69	NANDIKOOR	13.132415	74.805889
70	MULKI	13.069126	74.805427
71	SURATHKAL	12.990234	74.805437
72	THOKUR	12.963308	74.829574

SN	Tunnel	North Face		South Face	
		Latitude	Longitude	Latitude	Longitude
1	Nathuwadi Tunnel	17.893917	73.387000	17.864361	73.415166
2	Nilike Tunnel	17.699525	73.386778	17.684203	73.382581
3	Ashti Tunnel	17.644738	73.383210	17.636105	73.386253
4	Chipuln Tunnel	17.495853	73.530681	17.485861	73.515591
5	Savarde Tunnel	17.459658	73.521723	17.431096	73.510294
6	Khershet Tunnel	17.353483	73.529925	17.343950	73.528397
7	Ambed Tunnel	17.194172	73.545924	17.180788	73.537719
8	Bhirkond Tunnel	17.171193	73.507896	17.168684	73.496184
9	Parchuri Tunnel	17.158665	73.482796	17.137313	73.470146
10	Karbude Tunnel	17.104466	73.418014	17.054846	73.384744
11	Banewadi Tunnel	16.983403	73.377609	16.981032	73.390106
12	Tike Tunnel	16.980484	73.393216	16.963046	73.428433
13	Math Tunnel	16.946394	73.556979	16.947126	73.563462
14	Berdewadi Tunnel	16.895318	73.606332	16.859347	73.611638
15	Shiravali Tunnel	16.776663	73.619696	16.760631	73.620708
16	Tiware Tunnel	16.749145	73.620621	16.739266	73.620379
17	Gopalwadi Tunnel	16.609376	73.631605	16.599736	73.637640
18	Pernem Tunnel	15.726988	73.817601	15.712893	73.815496
19	Padi Tunnel	15.113784	74.033092	15.096284	74.031649
20	Barcem Tunnel	15.063944	74.032046	15.033698	74.033840

SN	Tunnel	North Face		South Face	
		Latitude	Longitude	Latitude	Longitude
21	Karwar Tunnel	14.806348	74.183952	14.779759	74.186917
22	Honnavar Tunnel-II	14.289607	74.449686	14.278456	74.459111
23	Byndoor Tunnel	13.890576	74.616416	13.877025	74.628347

SN	Bridge	North Face		South Face	
		Latitude	Longitude	Latitude	Longitude
1	Kundalika – II	18.411722	73.208496	18.409879	73.210427
2	Savitri	18.087148	73.355842	18.084554	73.357666
3	Chorti	17.862660	73.416645	17.861259	73.417489
4	Vashishthi River	17.527994	73.542419	17.525428	73.542533
5	Asurde	17.360525	73.531618	17.358363	73.531119
6	Gad River	17.329732	73.534417	17.325528	73.536476
7	Shastri	17.161708	73.486915	17.159428	73.483797
8	Kuwarbao Viaduct	16.989989	73.349603	16.989874	73.353678
9	Pomendi Viaduct	16.983991	73.374646	16.983588	73.376866
10	Panval Viaduct	16.981054	73.389973	16.980477	73.393216
11	Tike Viaduct	16.962055	73.430416	16.960951	73.432319
12	Kondvi Viaduct	16.957156	73.43913	16.955655	73.441482
13	Janovali River	16.283196	73.732342	16.281674	73.731580
14	Gad River	16.254818	73.717981	16.252928	73.716993
15	Terekhol River	15.789193	73.819198	15.788637	73.819446
16	Mandovi-II River	15.541756	73.921340	15.539586	73.920556
17	Mandovi-I River	15.526111	73.920294	15.518604	73.924926
18	Dongri Back Water	15.451667	73.925721	15.450441	73.925114

SN	Bridge	North Face		South Face	
		Latitude	Longitude	Latitude	Longitude
19	Zuari River	15.419671	73.910598	15.407772	73.907880
20	Cortalim + Xing NH-17	15.406079	73.907494	15.402003	73.906965
21	Cortalim-I Creek	15.401654	73.906991	15.400193	73.907278
22	Kali Nadi	14.864778	74.163353	14.853684	74.171201
23	Gangavali River	14.600711	74.360434	14.596696	74.361762
24	Aganashini River	14.478711	74.429643	14.474757	74.428013
25	Sharavathy -A	14.278310	74.459132	14.273864	74.461862
26	Sharavathy -B	14.271047	74.462419	14.257974	74.463077
27	Halladi-II	13.643679	74.724634	13.641478	74.724950
28	Halladi-I	13.637498	74.725488	13.633044	74.726102
29	Swarna River	13.383049	74.763238	13.380733	74.762536

SN	Km	Section	LC gate	Geo co-ordinates	
				Latitude	Longitude
1	04/8-9	ROHA-KOL	LC No.01	18.436766	73.167787
2	08/2-3	ROHA-KOL	LC No.02	18.422751	73.193875
3	12/3-4	ROHA-KOL	LC No.03	18.397221	73.221233
4	14/0-1	KOL-INP	LC No. 04	18.382985	73.228136
5	15/9-16/0	KOL- INP	LC No. 05	18.366625	73.232345
6	16/6-7	KOL- INP	LC No.06	18.359984	73.233784
7	17/1-2	KOL- INP	LC No. 07	18.355807	73.234689
8	18/8-9	KOL- INP	LC No. 08	18.340934	73.239074
9	22/ 6-7	KOL- INP	LC No.09	18.307064	73.240784

SN	Km	Section	LC gate	Geo co-ordinates	
				Latitude	Longitude
10	24/3-4	INP-MNI	LC No.10	18.293575	73.246853
11	25/7-8	INP-MNI	LC No.11	18.281392	73.252470
12	27/3-4	INP-MNI	LC No.12	18.268533	73.258534
13	32/4-5	MNI-GNO	LC No.13	18.234106	73.288990
14	39/3-4	MNI-GNO	LC No.14	18.174002	73.297649
15	40/2-3	MNI-GNO	LC.No.15	18.166501	73.300550
16	45/4-5	GNO -VEER	LC No.16	18.125846	73.323857
17	54/9-55/0	VEER- SAPE	LC No.17	18.059614	73.371414
18	69/6-7	KFD-VINH	LC No.18	17.943254	73.382593
19	91/9-92/0	KLBN-KHED	LC No.19 Closed	17.755727	73.422647
20	130/5-6	CHI-KMAH	LC No.20	17.529604	73.542129
21	287/8-9	VBW- ACRN	LC No.21	16.490480	73.736917
22	298/2-3	ACRN -NAN	LC No.22	16.398372	73.735243
23	304/1-2	NAN-KKW	LC No.23	16.349057	73.715105
24	309/0-1	NAN-KKW	LC No.24	16.309964	73.734379
25	315/8-9	KKW-SNDD	LC No.25	16.252013	73.716516
26	323/3-4	KKW-SNDD	LC No.26	16.186016	73.711287
27	333/2-3	SNDD-KUDL	LC No. 27	16.105728	73.679624
28	339/3-4	SNDD-KUDL	LC No.28	16.051211	73.678782
29	352/4-5	KUDL-ZARP	LC No.29	15.954330	73.730025
30	364/5-6	SWV-MADR	LC No.31	15.861676	73.788444
31	380/0-1	MADR-PERN	LC No.32	15.756538	73.821729
32	399/8-9	THVM-KRMI	LC No.33	15.605363	73.894238

SN	Km	Section	LC gate	Geo co-ordinates	
				Latitude	Longitude
33	402/4-5	THVM-KRMI	LC No.34	15.583906	73.903082
34	403/7-8	THVM-KRMI	LC No.35	15.572443	73.904205
35	405/0-1	THVM-KRMI	LC No.36	15.562817	73.910759
36	411/6-7	THVM-KRMI	LC No.37	15.510018	73.925440
37	428/2-3	KRMI-VEN	LC No.40	15.367582	73.916404
38	432/7-8	VEN - MJO	LC No.42	15.328818	73.910293
39	433/3-4	VEN-MJO	LC No.43	15.324347	73.913500
40	434/4-5	VEN-MJO	LC No.44	15.316170	73.919929
41	438/2-3	MJO-MAO	LC No.45	15.289209	73.941206
42	440/4-5	MJO-MAO	LC No.46	15.273163	73.953897
43	444/0-1	MAO-BLLI	LC No.47	15.267191	73.985475
44	446/3-4	MAO-BLLI	LC No.48	15.257232	74.002757
45	449/7-8	MAO-BLLI	LC No.49	15.226500	74.003660
46	456/5-6	MAO-BLLI	LC No.49B	15.170256	74.021264
47	488/19-20	LOL-AT	LC No.50	14.907433	74.118081
48	489/9-490/0	LOL-AT	LC No.51	14.898289	74.126612
49	500/4-5	KAWR	LC No. 52	14.825256	74.182890
50	501/6-7	KAWR	LC No.53	14.814578	74.183235
51	502/1-2	KAWR-HAA	LC No.54	14.809400	74.183687
52	516/6-7	HAA-ANKL	LC No.55	14.737145	74.277153
53	526/4-5	HAA-ANKL	LC No.56	14.662887	74.316415
54	531/8-9	ANKL-GOK	LC No.57	14.626855	74.349802
55	535/8-9	ANKL-GOK	LC No.58	14.592796	74.363240

SN	Km	Section	LC gate	Geo co-ordinates	
				Latitude	Longitude
56	541/0-1	GOK-MRJN	LC No.59	14.553668	74.385608
57	546/8-9	GOK-MRJN	LC No.60	14.514069	74.418305
58	549/0-1	MRJN-KT	LC No.61 Closed	14.496201	74.427030
59	554/2-3	MRJN-KT	LC No.62	14.451878	74.421589
60	559/6-7	KT-HNA	LC No.63	14.406555	74.427394
61	567/9-568/0	KT-HNA	LC No.64	14.332033	74.429982
62	568/9-569/0	KT-HNA	LC No 65	14.323106	74.431974
63	570/3-4	HNA-MANK	LC No.66	14.310515	74.432832
64	585/2-3	HNA-MANK	LC No.66B	14.194709	74.482792
65	589/0-1	MANK-MRDW	LC No.67	14.163176	74.499450
66	591/0-1	MANK-MRDW	LC No.68	14.145772	74.503690
67	612/1-2	BTJL-SHMI	LC No.69	13.977882	74.570473
68	614/7-8	BTJL-SHMI	LC No.70	13.957678	74.583740
69	619/2-3	SHMI- BIJR	LC No.71	13.924460	74.595144
70	620/2-3	SHMI- BIJR	LC No.72	13.916518	74.596666
71	627/0-1	SHMI- BIJR	LC No.73	13.868817	74.635563
72	630/1-2	SHMI- BIJR	LC No.74	13.842288	74.640765
73	630/8-9	SHMI- BIJR	LC No.74B	13.835933	74.640118
74	631/6-7	SHMI- BIJR	LC No.75	13.828789	74.641230
75	633/3-4	BIJR-SEN	LC No.76	13.813791	74.644297
76	634/3-4	BIJR-SEN	LC No.77	13.804227	74.643223
77	645/7-8	BIJR-SEN	LC No.78	13.719612	74.680229

SN	Km	Section	LC gate	Geo co-ordinates	
				Latitude	Longitude
78	660/9-661/0	KUDA-BKJ	LC No.79	13.604887	74.729949
79	664/1-2	KUDA-BKJ	LC No.80	13.576286	74.734060
80	679/4-5	BKJ-UD	LC No.81	13.444642	74.765299
81	682/6-7	BKJ-UD	LC No.82	13.416555	74.769636
82	698/9-699/0	UD-INJ	LC No.83	13.276377	74.757756
83	711/1-2	PDD-NAND	LC No.84	13.171727	74.768863
84	713/8-9	PDD-NAND	LC No.85	13.155364	74.786305
85	718/1-2	NAND-MULK	LC No.85A	13.126125	74.807657
86	720/5-6	NAND-MULK	LC No.86	13.105204	74.812335
87	721/6-7	NAND-MULK	LC No.87	13.095628	74.811922
88	726/5-6	MULK-SL	LC No.88	13.053877	74.801599
89	727/1-2	MULK-SL	LC No.89	13.048384	74.801900
90	736/2-3	SL-TOK	LC No.90	12.973132	74.816577

Approval & Implementation

This Plan has the approval of Director (Operations & Commercial) and shall be implemented from the month of October, 2025. As per the Policy norms of Government of India and Ministry of Railways the plan is subject to review each year.