



Western Railway
पश्चिम रेलवे
MUMBAI DIVISION
मुंबई मंडल

Disaster Management plan-2026 PART-I

आपदा प्बंध योजंा-2026 भाग- I



SAFETY FIRST LAST AND ALWAYS

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मंडल रेल प्रबंधक

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सत्यमेव जयते



पश्चिम रेलवे
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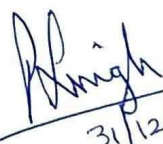


FOREWORD

As Divisional Railway Manager of Mumbai Division, I consider the Disaster Management Plan not merely a statutory document, but the most critical operational blueprint that ensures systemic capabilities to withstand catastrophic incidents and situations. The Disaster Management Plan does not deal only with accidents and natural calamities within the Division; it also calls for close coordination and assistance from neighboring divisions, as well as from Civil and Military authorities.

It should be clear to every officer and staff member of Mumbai Division that our operational efficiency is very important but our safety and disaster preparedness is non-negotiable.

I hope all our team members of Mumbai Division will take full benefit from the Disaster Management Plan and organize their resources accordingly. Let us pledge that if ever a crisis strikes, Mumbai Division will not merely react, but respond with speed, precision and empathy to protect every single life entrusted to us.


31/12/25
(Pankaj Singh)

Divisional Railway Manager
Mumbai Central, Western Railway



पश्चिम रेलवे
Western Railway

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PREFACE

Mumbai Division (WR) is an unique division with one of the most dense suburban section serving western line of commercial capital of India. Every day approximately 3.5 million passengers travel in Mumbai division's 1406 sub urban services and other long distance trains.

The safety of railway operation and security of the millions availing the railway services are of paramount importance. There is a need of institutional mechanism for coordinated efforts in case of any eventuality. Divisional Disaster Management Plan is one such mechanism which covers details for handling different kinds of disaster in Mumbai Division and elaborates the role of each department.

Effective Disaster Management aims to reduce risk and enhance resilience. Catastrophic events such as earthquakes, floods, cyclones, and tsunamis can cause extensive casualties and severe damage to property and infrastructure. It is essential to have a detail plan in place, in which roles and responsibilities are clearly spelled out with necessary information of civil authorities and their jurisdiction, leaving no place for confusion or chaos.

Disaster Management Plan is prepared under Disaster Management Act, 2005 with utmost care and inputs are given by all the concern department of the division. I hope this booklet will serve as a guiding document for all of us during challenging times and help us mitigate the effects of any untoward incident.

(Aarti Singh Parihar)
Addl.Divisional Railway Manager
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Mumbai Central, Western Railway

Message

Disaster Management Plan (DMP) for the year 2026 is a comprehensive and systematic framework aimed at ensuring the safety and security of passengers' employees and infrastructure during and after a disaster. This plan outlines strategies and procedures to prevent, respond to and recover from emergencies such as accidents, natural calamities. It involves collaboration between railway authorities, local government bodies and emergency services to minimize risks protect critical infrastructure and ensure effective and coordinated response during emergency.

Firstly, I would like to extend my deepest respect and gratitude to Shri Pankaj Singh, DRM/BCT, for his keen interest and guidance in the early completion of the Disaster Management Plan 2026. I sincerely thanks him for his valuable guidance and suggestions

I would also like to convey my respect and regards to Smt. Aarti Singh Parihar, ADRM (OP/HR)-BCT, for her invaluable suggestions in preparing the DMP booklet.

Furthermore, I express my sincere thanks to all Branch Officers of the BCT Division for their support and guidance. Every effort has been made to ensure the accuracy and completeness of this booklet, there may still be some omissions or errors. I humbly request that any such issues be brought to the notice of Sr.DSO/BCT, and your efforts in this regard will be highly appreciated.


Sr.Divisional Safety Officer
Mumbai Central, Western Railway

COORDINATOR

On behalf of the Safety Department, we take this opportunity to present the Disaster Management Plan – 2026 as our privilege and responsibility. We express our heartfelt appreciation for the exceptional efforts taken across Mumbai Division, Western Railway, in strengthening disaster preparedness.

We acknowledge the dedication and commitment of all departments in ensuring the safety and well-being of passengers, staff, and all associated agencies during disasters. Our collective teamwork not only enhances our response capabilities but also fosters a strong sense of community and shared responsibility.

The compilation and presentation of the Disaster Management Plan – 2026 has been made possible due to the kind guidance of Hon'ble DRM, ADRMs and Sr. DSO. The support of all Branch Officers and the assistance of Shri R. K. Kanojiya (Divisional Transportation Inspector Safety), Shri Somnath N. Waghmare (Sr. Clerk Safety), Safety Branch, have been invaluable in preparing this plan. We hope this document will further strengthen our ability to deliver effective disaster management.

No plan can ever be complete without valuable suggestions and guidance. We therefore request all concerned to kindly share their inputs for further improvement of this plan.



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Disaster Management Part-I 2026

INDEX

Chapter No.	Description	Page Nos.
DISASTER MANAGEMENT PLAN PART I		
	Abbreviations	7-13
	Disaster Management Cycle	14
1.0	Introduction	15-19
1.1	<i>Introduction</i>	
1.2	<i>Definition</i>	
1.3	<i>Golden hour</i>	
1.4	<i>Types of disaster causing interruption to train services</i>	
1.5	<i>Levels of disaster causing interruption of train services</i>	
1.6	<i>Declaration of railway accident/situation a disaster</i>	
1.7	<i>Strengths of the railways to handle a disaster</i>	
1.8	<i>The objective of the disaster management plan is to active</i>	
1.9	<i>Nodal department for Policy Formulation on DM on Indian Railways:</i>	
1.10	<i>Standard Operating procedure (SOP) on Railways</i>	
2.0	DISASTER MANAGEMENT ACT – 2005	20-24
2.1	<i>National Policy on Disaster Management (NDPM)</i>	
2.2	<i>Salient Features of the Disaster Management Act, 2005</i>	
2.3	<i>Important Provisions in the DM Act, 2005 concerning Railways;</i>	
2.4	INSTRUCTIONS OF THE BOARD	
3.0	The National Disaster Management Authority	25-30
3.1	<i>Constitution and Role of NDMA</i>	
3.2	<i>Constitution of Advisory Committee by National Authority</i>	
3.3	<i>National Plan</i>	
3.4	<i>Role of the Nodal and other Central Ministries and Departments etc</i>	
3.5	<i>Guidelines issued by NDMA and Action thereon</i>	
3.6	<i>Guidelines on Chemical Disasters</i>	
3.7	<i>Guidelines on Chemical (Terrorism) Disaster</i>	
3.8	<i>Guidelines on Nuclear and Biological Disasters</i>	
3.9	<i>Guidelines on Preparation of State Disaster Management Pla</i>	
3.10	<i>Guidelines on Management of Earthquakes, Cyclones, and Floods</i>	
4.0	Disaster Preparedness : Resources	31-33
4.1	<i>Resources</i>	
4.2	<i>Resource Unit-I</i>	
4.3	<i>Resource Unit-II</i>	
4.4	<i>Resource Unit-III</i>	
4.5	<i>Resource Unit-IV</i>	
4.6	<i>Functioning Of Disaster Management Cell</i>	
5.0	Disaster Preparedness : Different Departments	34-38
5.1	<i>Engineering Department</i>	

Disaster Management Part-I 2026

5.2	<i>The yardstick for Engineering materials</i>	
5.3	<i>Track Material</i>	
5.4	<i>Labour</i>	
5.5	<i>Mobility</i>	
5.6	<i>Equipment and Miscellaneous</i>	
5.7	<i>Mechanical Department</i>	
5.8	<i>Medical Department</i>	
5.9	<i>Electrical Department</i>	
5.10	<i>Telecommunication Department</i>	
5.11	<i>Transportation Department</i>	
5.12	<i>Ensuring full complements of Brake van equipment</i>	
5.13	<i>Commercial Department</i>	
5.14	<i>Security Department</i>	
5.15	<i>Disaster Management Team of RPF</i>	
5.16	<i>Equipment for RPF</i>	
5.17	<i>Preparedness at the Divisional Level</i>	
5.18	<i>Display at Railway stations</i>	
5.19	<i>Railway hospitals</i>	
5.20	<i>General</i>	
6	<i>PHASES OF DISASTER MANAGEMENT</i>	39-41
6.1	<i>Phase-I:</i>	
6.2	<i>Phase-II:</i>	
6.3	<i>Phase-III</i>	
6.4	<i>Phase-IV:</i>	
7.	<i>ACCIDENT RELIEF MEDICAL EQUIPMENT , ACCIDENT RELIEF TRAIN, SELF PROPELLED ACCIDENT RELIEF TRAIN AND SELF PROPELLED ACCIDENT RELIEF MEDICAL VAN</i>	42-44
7.1	<i>Location of ART/ARME/SPART/SPARME</i>	
7.2	<i>Target Time For Movement Of Accident Relief Train</i>	
7.3	<i>Target Time For Turning Out Of Medical Relief Van From Siding And Dispatch From The Station</i>	
7.4	<i>Rushing of ARMEs And ARTs To Accident Site</i>	
7.5	<i>ARME Scale li Locations</i>	
7.6	<i>Accident Relief Medical Equipments:</i>	
7.7	<i>Accident Relief Medical Equipments:</i>	
8.0	<i>DISASATER RESPONSE-INSTANT ACTION TEAM</i>	45-47
8.1	<i>Instant Action Team comprises</i>	
8.2	<i>Checklist of action to be taken</i>	
8.3	<i>Duties Of TTE/Train Supdt.</i>	
8.4	<i>AC Mechanic / Attendant</i>	
8.5	<i>RPF/GRP Staff:</i>	
8.6	<i>Railway staff travelling on the accident affected train</i>	

Disaster Management Part-I 2026

8.7	<i>The senior most officers travelling on the train will assume charge as Officer-in-Charge Site (OIC Site):</i>	
9.0	<i>DISASTER RESPONSE FIRST RESPONDERS</i>	48-64
9.1	<i>Duties of OIC Site (Immediately after the accident):</i>	
9.2	<i>Formation of groups comprising members of Instant Action team:</i>	
9.3	<i>Duties of On board Railway staff immediately after the accident</i>	
9.4	<i>Duties of members of Instant Action team</i>	
9.5	<i>Duties of the Instant Action Team - In case of Fire:</i>	
9.6	<i>Duties of OIC SITE</i>	
9.7	<i>Role of First Responders - Local people</i>	
9.8	<i>Duties of First Responders – Railway Staff</i>	
9.9	<i>Duties of Safety Branch:</i>	
9.10	<i>Operating department:</i>	
9.11	<i>Commercial Department</i>	
9.12	<i>Engineering Department: Co-ordination shall be done by Sr. DEN (HQ)</i>	
9.13	<i>Mechanical Department: Co-ordination shall be done by Sr.DME</i>	
9.14	<i>Signal & Telecom. Department Co-ordination shall be done by Sr.DSTE(HQ) & concerned Sr.DSTEs & ADSTEs shall proceed to site. DSTE shall remain in Control Office</i>	
9.15	<i>Electrical Department : Co-ordination shall be done by Sr.DEE(P), Sr.DEE(TRD), Sr.DEE(O), Sr.DEE(Chg.), Sr.DEE(Sub), Sr.DEE(RS) (Concerned Branch Officer will proceed to site & DEE/ADEE in Control Office</i>	
9.16	<i>Personnel Department Co-ordination shall be done by Sr. DPO /DPO. (DPO will proceed to site and Sr.DPO in Control Office</i>	
9.17	<i>Security Department Co-ordination shall be done by Sr.DSC (Sr.DSC will proceed to site and ASC in Control Office)</i>	
9.18	<i>RPF Control Room</i>	
9.19	<i>Duties of Medical Department Staff</i>	
9.20	<i>Duties of Accounts Dept.</i>	
10.	<i>DISASTER RESPONSE –OVERVIEW</i>	65-69
10.1	<i>Golden Hour</i>	
10.2.	<i>Disaster Syndrome:</i>	
10.3.	<i>Different phases of Disaster Response</i>	
10.4	<i>First Aid in Emergency</i>	
10.5	<i>First Aid in case of burnt injuries</i>	
11	<i>SITE MANAGEMENT PLAN - I</i>	70-78
11.1	<i>Two aspects of Disaster Management work at an accident site:</i>	
11.2	<i>Unified Command Centre (UCC)</i>	
11.3	<i>Detailed Schematic Plan Of Unified Command Centre</i>	
11.4	<i>Local Command Canfers (LCCs)</i>	
11.5	<i>Combined Assistance Centre:</i>	
11.6	<i>Combined Assistance Centre (CAC)</i>	

Disaster Management Part-I 2026

11.7	<i>First Aid Posts:</i>	
11.8	<i>Setting up of UCC, LCC AND CAC</i>	
11.9	<i>Collection and dissemination of information - Channel of communication:</i>	
12	<i>SITE MANAGEMENT PLAN - II</i>	71-91
12.1	<i>Quick rescue, relief and restoration operation</i>	
12.2	<i>Members of the Disaster Management Team</i>	
12.3	<i>Officer-in-charge of Site (OIC Site)</i>	
12.4	<i>Rescue, Relief and Restoration Operation</i>	
12.5	<i>Photography</i>	
12.6	<i>General</i>	
13	<i>MEDIA MANAGEMENT PLAN</i>	92-96
13.1	<i>Objectives</i>	
13.2	<i>Duties of Public Relation Organization (PRO)</i>	
13.3	<i>Spokes Person</i>	
13.4	<i>Information to be relayed to Press and Electronic Media</i>	
14.0	<i>PASSENGER CARE</i>	97-99
14.1	<i>General</i>	
14.2	<i>Hospitalization of the injured:</i>	
14.3	<i>Facilities to be made available in hospital</i>	
14.4	<i>Communication:</i>	
14.5	<i>Arrival of relatives:</i>	
15.0	<i>FORMAT FOR REPORTING ACCIDENT</i>	100-102
15.1	<i>Performa For Reporting Train Accident From Site</i>	
15.2	<i>Gate Particulars (Manned / Unmanned</i>	
15.3	<i>Loco Pilot Particulars</i>	
16.0	<i>Flooding: Dos and Don'ts</i>	103-104
16.1	<i>Dos</i>	
16.2	<i>Don'ts</i>	
17.0	<i>FIRE ACCIDENTS</i>	105-109
17.1	<i>Introduction</i>	
17.2	<i>Main causes of fire in trains:</i>	
17.3	<i>Action to be taken in case of fire in train</i>	
17.4	<i>In case of fire in a passenger train:</i>	
17.5	<i>In the event of a vehicle on a Train being on fire</i>	
17.6	<i>In the event of fire on an Electric engine/EMU</i>	
17.7	<i>In the event of a fire on a Diesel Engine/DMU stock</i>	
17.8	<i>When a person is on fire:</i>	
17.9	<i>Fire caused by Petrol or other inflammable liquids, acids or gases</i>	
17.10	<i>In case of fire due to Explosive/Inflammable/Dangerous Goods</i>	
17.11	<i>Fire Extinguishers</i>	
17.12	<i>Classification of fires</i>	

Disaster Management Part-I 2026

18	BOMB EXPLOSION AND TERRIORIST THREAT	110-112
18.1	<i>Bomb Explosion And Mitigation Process</i>	
18.2	<i>In Case Of Threat Of Terrorist Attack</i>	
19	LIQUIFIED PETROLEUM GAS / OIL EMERGENCY	113-114
19.1	<i>Action To Be Taken In Oil Tank/LPG Emergency</i>	
19.2	<i>Action to be taken at Divisional level</i>	
20	ACTION PLAN FOR CYCLONE AND STORM	115-121
20.1	<i>Weather warning message</i>	
20.2	<i>Action to be taken on receipt of weather/cyclone warning messages:</i>	
20.3	<i>Categorization of Alerts</i>	
20.4	<i>Monitoring / Reporting of Effects of Disaster:</i>	
20.5	<i>Standard Operating Procedure (SOP) on Railways</i>	
21	EARTHQUAKE : DISASTER MANAGEMENT	122-124
21.1	<i>Impact of Earthquake on Railway systems:</i>	
21.1.1	<i>Damage to Track:</i>	
21.1.2	<i>Damage to Service building:</i>	
21.1.4	<i>Damage to OHE:</i>	
21.1.5	<i>Damage to C&W sick line & TRS Shed</i>	
21.2	<i>Action to be taken in case of Earthquake</i>	
21.2.1	<i>Action by Operating Branch</i>	
21.2.2	<i>Action to be taken by Engineering Branch</i>	
21.2.3	<i>Action by S&T Branch:</i>	
21.2.4	<i>Action to be taken by Electrical TRD Branch</i>	
21.2.5	<i>Action to be taken by Electrical(P) Branch</i>	
21.2.6	<i>Action to be taken by Commercial Branch</i>	
21.2.7	<i>Action to be taken by Mechanical branch</i>	
21.2.8	<i>Action to be taken by Personnel Branch</i>	
21.2.9	<i>Action to be taken by RPF Branch</i>	
22	Management of chemical (terrorism) disasters	125-126
22.1	<i>Introduction</i>	
22.2	<i>NDA's guidelines</i>	
22.2.1	<i>The approach followed in the NDMA's Guidelines lays emphasis on:</i>	
22.3	<i>CTD preparedness plan</i>	
22.4	<i>Preparedness for Emergency Response</i>	
22.5	<i>Training for the Responders</i>	
22.6	<i>Comments on the Indian Railways Disaster Management Plan by NDMA</i>	
23	Management of nuclear and radiological emergency (disaster)	127-128
23.1	<i>Nuclear / radiological emergency</i>	
23.2	<i>Vulnerability of Nuclear Facilities</i>	
24.	Tsunami	129-133
24.1	<i>What is Tsunami ?</i>	

Disaster Management Part-I 2026

24.2	<i>Main Causes of Tsunamis</i>	1
24.3	<i>Types of Official Alerts</i>	
24.4	<i>Effects and Impacts of a Tsunami</i>	
24.5	<i>Deadliest Tsunamis in History</i>	
24.6	<i>Tsunami Action Plan</i>	
24.7	<i>Quick One-Page Family Tsunami Plan</i>	
24.8	<i>Effects of Tsunami on Railways</i>	
24.9	<i>Action Plan for Railways in Case of Tsunami</i>	
24.10	<i>Railway Tsunami Rule-of-Thumb</i>	
25	<i>Crisis management plan (CMP)</i>	134-135
25.1	<i>Introduction</i>	
25.2	<i>This Crisis Management Plan deals with National level crisis situations which are as under</i>	
25.2.1	<i>All Indian railway strike</i>	
25.2.2	<i>Terrorism/Security related Crisis</i>	
25.2.3	<i>Natural Factor(s) related Crisis leading to traffic disruption:</i>	
25.2.4	<i>Major train accidents</i>	
25.3	<i>Following are the important duties at the time of accident:</i>	
26	<i>Managing crowds</i>	136-140
26.1	<i>Guidelines by NDMA</i>	
26.2	<i>Salient features of NDMA guidelines:</i>	
26.3	<i>Crowd control and management</i>	
26.4	<i>Role of responsibility of Zonal Railways/Divisions</i>	
26.5	<i>Crowd control and Management of rush at Railway Stations</i>	
26.6	<i>Action to be taken for crowd management on western railway</i>	
25.7	<i>The Emergency Operations Centre should work as</i>	
26.8	<i>Duties of Security Department</i>	
268.1	<i>Liaison with Civil Police</i>	
26.8.2	<i>Crowd management</i>	
26.8.3	<i>Protection of luggage</i>	
26.8.4	<i>Protection of railway property</i>	
26.9	<i>General</i>	
26.10	<i>Security arrangements Mock Drill</i>	
27	<i>Schedule of Power (SOP)</i>	141-144
28	<i>List of correction slips</i>	145

ABBREVIATIONS:

	ABBREVIATIONS USED
(G)	General
(C)	Coaching
(M)	Movement
1AC	1st Air Conditioned Coach
2AC	2 Tier Air Conditioned Sleeper Coach
3AC	3 Tier Air Conditioned Sleeper Coach
AC	Air Conditioned
ADEN	Assistant Divisional Engineer
ADG	Additional Director General
ADH	Andheri Station
ADME	Assistant Divisional Mechanical Engineer
ADMO	Assistant Divisional Medical Officer
ADRM	Assistant Divisional Railway Manager
ADSO	Assistant Divisional Safety Officer
AGM	Additional General Manager
AML	Amalsad Station
AN	Amalner station
ARM	Area Manager
ARME	Accident Relief Medical Equipment
ARMV	Accident Relief Medical Van
ART	Accident Relief Train
ASC	Assistant Security Commissioner
Asstt.	Assistant
ASTE	Assistant Signal & Telecommunication Engineer
ATUL	Atul Station
BA	Bandra Station
BAWD	Bhadwad Station
BCT	Mumbai Central Terminus
BBAI	Bhadbhunja station
BD Spl	Break Down Special
Bd's	Board's
BHET	Bhestan Station
BL	Vasad Station
BLD	Bhilad Station
BIM	Bilimora Station

Disaster Management Part-I 2026

ABBREVIATIONS USED	
BIY	Bardoli Station
BOR	Boisar Station
BRC	Vadodara Junction
BRTK	Bhortek Station
BSF	Border Security Force
BSNL	Bharat Sanchar Nigam Limited
BSR	Vasai Road Station
BVI	Borivali Station
BYR	Bhyandar Station
C&W	Carriage and Wagon
CAC	Combined Assistance Centre
CCG	Churchgate
CCM	Chief Commercial Manager
CHC	Community Health Centre
CHM	Chalthan Station
CHLK	Chavalkhede Station
CMD	Chief Medical Director
CME	Chief Mechanical Engineer
CMI	Commercial Inspector
CMPE (Diesel)	Chief Motive Power Engineer (Diesel)
CMS	Chief Medical Superintendent
COFMOW	Central <i>Organization</i> for Modernization of Workshops
Cons.	Construction
COS	Controller of Stores
CPD	Chinchpada Station
CPO	Chief Personnel Officer
CPRO	Chief Public Relations Officer
CPTM	Chief Passenger Transportation Manager
CRB	Chairman Railway Board
CRPF	Central Reserve Police Force
CRS	Commissioner of Railway Safety
CRSE	Principal Chief Rolling Stock Engineer
PCSO	Chief Safety Officer
CTNL	Chief Controller

Disaster Management Part-I 2026

ABBREVIATIONS USED	
CUE	Chaupale Station
CUG	Closed User Group
CWI	Carriage & Wagon Inspector
CYR	Charni Road Station
DCM	Divisional Commercial Manager
DCMI	Divisional Commercial Inspector
DCWI	Divisional Carriage and Wagon Inspector
Sr. DSC	Senior Divisional Security Commissioner
DSL	Diesel
DSO	Divisional Safety Officer
DSR	Dahisar Station
DSTE	Divisional Signal & Telecommunication Engineer
Dy.	Deputy
Dy. CE	Deputy Chief Engineer
Dy.CCM	Deputy Chief Commercial Manager
Dy.COM	Deputy Chief Operations Manager
Dy.TNL	Deputy Controller
DXG	Dharngaon station
EC	Emergency Control
ED	Executive Director
EDPM	Electronic Data Processing Manager
E-Mail	Electronic Mail
EMU	Electric Multiple Unit
Engg.	Engineering
EOC	Emergency Operation Centre
ETL	Emergency Train Lighting
FA&CAO	Financial Advisor and Chief Account Officer
FR	First Responders
G&SR	General & Subsidiary Rule
GEB	Gujarat Electricity Board
GM	General Manager
GMN	Goregaon
GRP	Govt. Railway Police
GTR	Grant Road Station
GVD	Gholwad Station
HOL	Hol station
HPC	Hindustan Petroleum Corporation
HQ	Head quarter.
HRD	Hydraulic Rescue Device
HRE	Hydraulic Rerailing Equipment
IAF	Indian Air Force

Disaster Management Part-I 2026

	ABBREVIATIONS USED
IAT	Instant Action Team
IG	Inspector General of Police
IG	Inspector General
IOC	Indian Oil Corporation
IRCM	Indian Railway Commercial Manual
IRCTC	Indian Railways Catering and Tourism Corporation
IRMM	Indian Railway Medical Manual
ISD	International Subscriber Dialing
IT	Information Technology
JA	Junior Administrative
JCB	Jack-cum-Bulldozer
JE	Junior Engineer
Jn.	Junction
JOS	Jogeshwari Station
JRS	Joravasan Station
LC	Level Crossing
KBH	Khandbara station
KEB	Karembali
KHAR	Khar Road Station
KHTG	Khatgaon station
KKF	Kolde station
KKRD	Kikakui road Station
KLV	Kelve Road Station
LCC	Local Command Centre
LI	Loco Inspector
LKKD	Lakkadkot Station
LPG	Liquefied Petroleum Gas
LTV	Latarava Station
MDD	Malad Station
MM	Mahim Station
MEL	Marine line station
MG	Meter Gauge
MID	Madhi Station
MIRA	Mira Road Station
MOSR	Minister of State for Railways
MR	Minister for Railways
MRL	Moroli Station
MRU	Matunga Road Station
MX	Mahalaxmi Station
NDB	Nandurbar station
NDN	Nardana station
NDRF	National Disaster Response Force (This colour shows added)

Disaster Management Part-I 2026

ABBREVIATIONS USED	
NGO	Non-Govt. Organization
NIG	Naigaon Station
NVS	Navsari Station
NWR	North Western Railway
NWU	Nawapur station
OC	Officer-in-Charge
OHE	Over Head Equipment
OIC	Officer Incharge
Op.	Operations
PA	Public Address
PAD	Pardi
PC	Personal Computer
PCO	Public Call Office
PCR	Power Controller
PDP	Padse station
PHC	Public Health Centers
PHOD	Principal Head of Department
PLD	Paldi station
PLG	Palghar
POL	Petroleum & Oil Limited
PR	Public Relations
PRO	Public Relations Officer
PWI	Permanent Way Inspector
RCT	Railway Claims Tribunal
RE	Railway Electrification
RG	Rest Giver
RNL	Ranala station
Rly.	Railway
RMS	Railway Mail Service
RPF	Railway Protection Force
S&T	Signal & Telecommunication
SC	Safety Counsellor
SCH	Sachin Station
SE	Section Engineer
Secy.	Secretary
SI	Signal Inspector
SI	Sub-Inspector
SLR	Second Class-cum-Luggage-cum-Brake Van coach
SM	Station Manager
SNK	Sindkheda station
SP	Self-Propelled/ Superintendent of Police
Spl.	Special

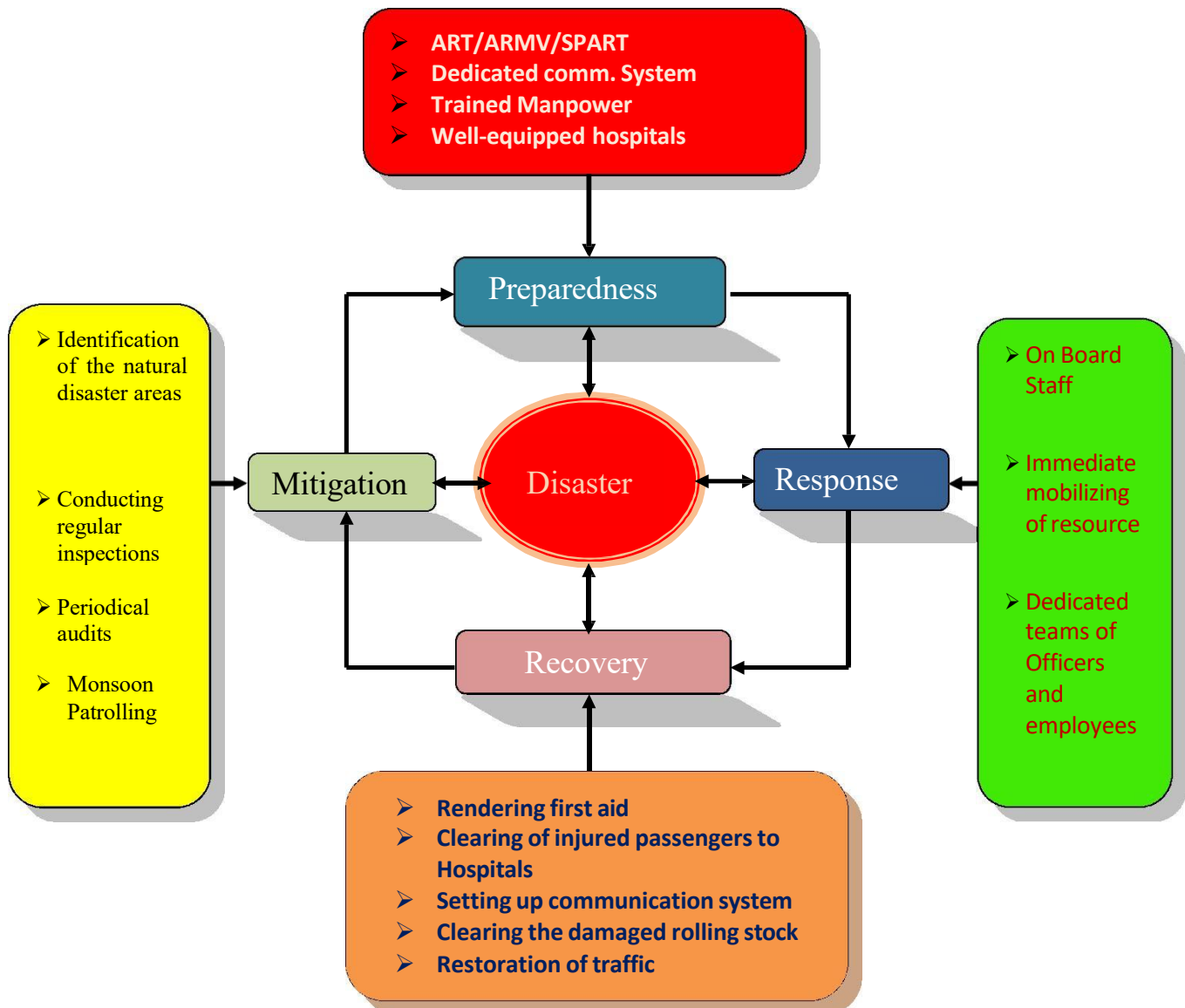
Disaster Management Part-I 2026

ABBREVIATIONS USED	
STC	Santacruz Station
Sr.	Senior
Sr. DAO	Senior Divisional Accounts Officer
Sr. DSO	Senior Divisional Safety Officer
Sr.DCM	Senior Divisional Commercial Manager
Sr.DEE	Senior Divisional Electrical Engineer
Sr.DFM	Senior Divisional Finance Manager
SAH	Saphale Station
SJN	Sanjan Station
Sr.DME	Senior Divisional Mechanical Engineer
Sr.DMO	Senior Divisional Medical Officer
Sr.DOM	Senior Divisional Operations Manager
Sr.DPO	Senior Divisional Personnel Officer
Sr.DSC	Senior Divisional Security Commissioner
Sr.DSTE	Senior Divisional Signal & Telecommunication Engineer
SS	Station Superintendent
SSE	Senior Section Engineer
SSE (C&W)	Senior Section Engineer (Carriage & Wagon)
ST	Surat
St.JAB	St.John Ambulance Brigade
STD	Subscriber Trunk Dialling
TBV	Timbrva Station
TCI	Telecommunication Inspector
TCM	Telecommunication Maintainer
TKHE	Takarkhede Station
TI	Traffic Inspector
TISI	TISI Station
TRD	Traction Distribution
TS	Train Superintendent
TTE	Travelling Ticket Examiner
TXR	Train Examiner
UBR	Umbargaon Road Station
UCC	Unified Command Centre
UDN	Udhna Junction
USD	Ukaisongadh station
UVD	Udvada Station
VAPI	Vapi Station

Disaster Management Part-I 2026

ABBREVIATIONS USED	
VDH	Vedchha Station
VGN	Vangaon Station
VHF	Very High Frequency
VKH	Vikhraon Road Station
VPU	Vehicle Parcel Van
VLP	Vile Parle Station
VR	Virar Station
VTN	Vaitarna Station
VYR	Vyara Station

DISASTER MANAGEMENT CYCLE OF RAILWAYS WITH CRITICAL INPUTS



CHAPTER- 1

DISASTER AN INTRODUCTION

1.1 INTRODUCTION:

Indian Railways came into existence with the running of the first train from Boribunder to Thane in 1853. Ever since then handling train accidents has been a priority area for the railways. With the main reason for building up of the rail network by the British Empire being the transportation of the military requirements through the Indian Railways, the railway organization worked hand in hand with the army authorities. Sharing of the Indian Railways and Army Cranes as also their Medical Vans in times of a train accident was an accepted system for handling disasters (rail accidents).

With the gradual growth of Indian Railways and its transition to transportation of passengers and other goods including raw material for industries etc. the railway gradually built up its own infrastructure of Cranes, Accident Relief Trains (ARTs), Accident Relief Medical Equipment Van (ARMVs). Till the beginning of the year 2005, a disaster on the railway in effect meant a serious train accident, other items of disaster viz. Floods, Earthquakes etc. were handled in an uncoordinated manner.

Disaster preparedness of the Railways, mainly pertaining to handling train accidents, had been gone into by a High Level Committee (HLC) in the year 2002/03 whose recommendations, where relevant, have been kept in view in the preparation of Railways Disaster Management Plan.

The situation has now changed with the promulgation of the Disaster Management (DM) Act in 2005. A disaster no longer means only a train accident, but its scope has become much wider to include other incidents, terrorism related activity and natural calamities etc.

Indian Railways Disaster Management Plan has been prepared based on the principles incorporated in the Disaster Management Act, National Disaster Management Plan and also Guidelines issued by NDMA. The basic philosophy to be followed is of sharing resources of all Government Departments along with Railways own resources to handle serious train accidents, other mishaps, terrorism related crisis, natural calamities etc.

1.2 DEFINITION:

Based on the Disaster Management Act 2005, Railway Board have adopted the Definition of Railway disaster as under.

“Railway Disaster is a serious train accident or an untoward event of grave nature, either on the railway premises or arising out of railway activity in that area, due to natural or manmade 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”

(Rly.Bd's letter No.2003/Safety (DM)/6/2 Pt. dated 06.01.09)

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

1.3 GOLDEN HOUR:

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

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

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

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

1.4 TYPES OF DISASTER CAUSING INTERRUPTION TO TRAIN SERVICES:

C-1 Human/equipment failure:

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

- a. Collisions
- b. Derailments
- c. Level crossing accidents at Manned/Unmanned level Crossings.
- d. Fire on Train
- e. Other Train accident affecting safety of train.

C-2 Natural Calamities:

Natural calamities also cause serious disruption to traffic with loss of life/property.

- a. Landslide
- b. Earth quakes
- c. Floods
- d. Storm/Cyclones/Tornadoes/Tsunami

C-3 Sabotage: Sabotage causing deliberate loss of life and/or damage to property

- a. Setting fire to train/railway installations and railway property. Bomb blasts
- b. Bomb blasts.
- c. Placing of obstructions on track to cause disruption to traffic.
- d. Tampering with railway fittings to cause accidents.

1.5 LEVELS OF DISASTER CAUSING INTERRUPTION OF TRAIN SERVICES:

Railway accidents can be categorized into different levels.

- Level-I Accidents of a magnitude which can be managed by the concerned divisional Authorities.
- Level-II Accidents of a magnitude which may require assistance from neighboring divisions but can be managed by the Zonal Railway: and

Level-III Disasters of a magnitude in terms of their severity of scale of casualties Govt. that require active involvement of multiple agencies of the Central (Ministry of Railways and other Ministries).

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

General Manager, Additional General Manager or Chief Safety Officers are the Approved nominated authorities for declaring an untoward incident as a Railway Disaster. The preparation of the Disaster Management Plans on the Zonal Railways in co-Ordination with the different department of the Railway, other Central/State Govt. Agencies, NGOs, Private agencies etc. has to be done by the Safety Department on the Zonal Railway.

1.6 Declaration of Railway accident/situation a Disaster:

In case of a serious accident or any other extra ordinary situation leading to disruption of traffic. The administration would take a conscious decision whether the situation is to be classified as a disaster or not. General Manager, Additional General Manager or Principal Chief Safety Officer are the approved nominated authorities for declaration of untoward incident as Railway disaster. Such declaration will be issued to all concerned. If the Accident is declared as a disaster, all instructions as contained herein the disaster management plan would automatically come into force and officers and staff of all departments would take action as laid down in this book. All Officers and Supervisors concern should be fully conversant with various duties listed herein and carry them without fail.

1.7 Strengths of the Railways to handle a Disaster:

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

- Railways' own Communication Network.
- Operating Control on each Division linked with each Station.
- Territorial Army Units.
- Uniformed force of RPF/RPSF.
- Railways' own Medical Infrastructure.
- Civil Defense Organization.
- An army of Gang men spread out all over the Indian Railways.
- Scouts and Guides (they can be best background support).
- Dedicated Rescue/Restoration and Medical Equipment on Rails.

Each of the above can be made use of to handle adversities depending upon requirement to handle the disaster.

1.8 THE OBJECTIVE OF THE DISASTER MANAGEMENT PLAN IS :

- i. To define and assess the emergencies, including risk and environment affect assessment.
- ii. To contain the incident and bring it under control by mobilizing the internal resources and with the help of available external or societal resources.
- iii. To safeguard the lives.
- iv. To cure the injured passengers and to provide immediate medical aid in GOLDEN HOUR.
- v. To minimize the damage to property or / and neighboring environment.
- vi. To inform employees, the public and the authority on the hazards / risks assessed, safeguards provided and the role to be played by them in the event of emergency.
- vii. Initiating and organizing evacuation of affected people.
- viii. Medical preparedness for the probable casualties.
- ix. Integration of resources under Off Site Emergency Action Plan of various district contingency plans
- x. To secure the safe rehabilitation of affected areas and to restore normalcy.
- xi. To work out a plan with all provisions to handle emergencies and to provide for emergency preparedness and the periodical rehearsal of the plan.
- xii. This disaster management plan comprises of geographical details of Mumbai division, facilities available, risk analysis and environmental impact assessment, fire protection, mutual aid arrangements, medical and safety services, key persons available along with their phone numbers and addresses and other relevant information to combat the emergencies

Integration of resources under Off Site Emergency Action Plan.

- To secure the safe rehabilitation of affected areas and to restore normalcy.
- To work out a plan with all provisions to handle emergencies and to provide for emergency preparedness and the periodical rehearsal of the plan.

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

Disaster Management plan of Ministry of Railways, Zonal and Divisional plans has to be prepared by the safety department in coordination with the concerned departments of the railways and all other stake holders.

The Hospital DM plans and the Security arrangements (drills etc) shall be prepared and coordinated by the Medical and the Security department respectively.

The Management of Floods, Cyclones, Earthquakes, Landslides, etc, and preventive action/mitigation shall be coordinated by the Civil Engineering Department.

The Rescue and Restoration centric DM including preparation of plans and procurement of specialized equipment and rescue centric training of personnel has to be coordinated by the Mechanical Department.

1.10 Standard Operating procedure (SOP) on Railways:

(i) **National Disasters:-**

The Civil Engineering Department at the field level and on the Divisions gets information through advance warning sent by the respective Government Departments on the possibility of Floods, Cyclones, Earthquakes and Landslides etc. Depending on the gravity of the disaster/crisis/calamity expected the information would be passed on to the Divisional officers through the Emergency Control which will act as Incident Command System. where train operations have to be suspended or regulated. The operating departments would be suitably advised. After making the train regulation plan the divisional control would advise the commercial and security departments for management of the welfare of passengers. Alerts to the passengers would be issued through the PR Department of the Railway in the Print and Electronic Media.

The DRMs on the divisions ensures coordination amongst the departments for ensuring running of train services (including relief special trains) as also relief arrangements for the passengers and for the Welfare of Railways own staff.

Assistance of other Divisions and from the Zonal Railways would be taken through the Headquarter of the Zonal Railways (i.e. by involving the General Manager). Coordination with the IOC of Patna and NDMA/NDRF would be through the Emergency Control of each Zonal Headquarter.

(ii) **Man-made Disasters:-**

Different forms of terrorism fall under the ambit of these disasters. A major role has to be played by the Security Department of the Railways who will coordinate with the State Governments authorities and when required the Para-military and other forces may be called.

A similar system should be followed as above in organizing regulation of train services by the operating department at the divisional, zonal level and also in the Railway Board.

(iii) **Handling CBRN Disaster**

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

(iv) **Chemical Disaster:-**

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

CHAPTER-2

DISASTER MANAGEMENT ACT – 2005

2.1 National Policy on Disaster Management (NDPM)

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

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

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

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

2.2 Salient Features of the Disaster Management Act, 2005

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

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

Disaster Management has been explained in this Act as under:

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

- Prevention of danger or threat of any disaster
- Mitigation or reduction of risk of any disaster on its severity 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

2.3 Important Provisions in the DM Act, 2005 concerning Railways;

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

Section 35

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

- a) Coordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, governmental and non- governmental organizations in relation to disaster management.
- b) Ensure the integration of measures for prevention of disasters and mitigation by Ministries or Departments of the Government of India into their development plans and projects.
- c) Ensure appropriate allocation of funds for prevention of disaster, mitigation, capacity- building and preparedness by the Ministries or Departments of the Government of India.

- d) Ensure that the Ministries or Departments of the Government of India take necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster.
- e) Cooperation and assistance to the State Governments, as requested by them.
- f) Deployment of naval, military, air forces and other armed forces of the Union or any other civilian personnel as may be required for the purposes of this Act.

Section 36

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

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

- (iv) Setting up temporary bridges, jetties and landing places
- (iv) Providing drinking water, essential provisions, healthcare and services in an affected area.
- (v) Take such other actions as it may consider necessary for disaster management

Section 37

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

(a) Prepare a disaster management plan specifying the following particulars, namely;

(i) The measures to be taken by it for prevention and mitigation of disasters in accordance with the National Plan;

(ii) The specifications regarding integration of mitigation measures in its development plans in accordance with the guidelines of the National Authority and the National Executive Committee ;

(iii) Its roles and responsibilities in relation to preparedness and capacity-building to deal with any threatening disaster situation or disaster;

(iv) Its roles and responsibilities in regard to promptly and effectively responding to any threatening disaster situation or disaster;

(v) The present status of its preparedness to perform the roles and responsibilities specified in sub-clauses (iii) & (iv);

(vi) The measures required to be taken in order to enable it to perform its responsibilities specified in sub-clauses (iii) & (iv)

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

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

(2) Every Ministry or Department of the Government of India shall –

(a) Make while preparing disaster management plan under clause (a) of sub-section (1) provisions for financing the activities specified therein;

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

2.4 INSTRUCTIONS OF THE BOARD (Boards' letter No.89/Safety-I/4/3 dt.4.3.89)

1. All railway men traveling in a train involved in accident should report immediately to the guard.

2. All staff at accident site should wear Arm bands. Accordingly all passengers carrying train should be provided with 10 Arm bands, to be kept with guard.

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

Apart from the above:

1. Division should keep a list of Doctors and medical units available nearer to all station including their distance which are to be displayed at all stations on a conspicuous place.
2. Divisions should keep a list of all ARME/ART siding with double/Single exist facilities in the control office.

CHAPTER-3

The National Disaster Management Authority

The National Disaster Management Authority (NDMA), headed by the Prime Minister of India, is the apex body for Disaster Management in India. Setting up of NDMA and the creation of an enabling environment for institutional mechanisms at the State and District levels is mandated by the Disaster Management Act, 2005. NDMA is mandated to lay down the policies, plans and guidelines for Disaster Management. India envisions the development of an ethos of Prevention, Mitigation, Preparedness and Response.

The Indian government strives to promote a national resolve to mitigate the damage and destruction caused by natural and man-made disasters, through sustained and collective efforts of all Government agencies, Non-Governmental Organizations and People's participation. This is planned to be accomplished by adopting a Technology-Driven, Pro-Active, Multi-Hazard and Multi-Sectorial strategy for building a Safer, Disaster Resilient and Dynamic India.

The NDMA Logo reflects the aspirations of this National Vision, of empowering all stakeholders to improve the effectiveness of Disaster Management in India. NDMA has 5 major divisions viz. Policy & Plans, Mitigation, Operations & Communications & Information & Technology, Administration and Finance.

3.0 Powers and functions of National Authority:

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

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

Disaster Management;

3.1 Constitution and Role of NDMA :

It is constituted under the DM Act as the apex body in the country to deal with Disaster Management holistically. Hon'ble Prime Minister is the ex-officio chairperson of the Authority. NDMA is responsible for laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster. State and Districts have also been mandated to constitute State and District Disaster Management Authorities respectively on the line of NDMA.

3.2 Constitution of Advisory Committee by National Authority:

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

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

The Secretary to the Government of India in charge of Ministry or Department of the Central Government having administrative control of the disaster management, who shall be Chairperson, ex-officio.

The Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defense, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and the Chief of the Integrated Defense Staff of the Chiefs of Staff Committee as ex-officio members.

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

The National Executive Committee may-

Act as the coordinating and monitoring body for disaster management;

Prepare the National Plan to be approved by the National Authority;

Coordinate and monitor the implementation of the National Policy;

Lay down guidelines for preparing disaster management plans by different Ministries or Departments or State Authorities;

Provide necessary technical assistance to the State Government and State Authorities for preparing their DM plans in accordance with the guidelines laid down by the National Authority;

Monitor the implementation of the National Plan and the plans prepared by the Ministries or Departments of the Government of India;

Monitor the implementation of the guidelines laid down by the National Authority for Integrating of measures for prevention of disasters and mitigation by the Ministries or Departments in their development plans and projects;

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

3.3 National Plan :-

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

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

The National Plan shall include:-

- Measures to be taken for the prevention of disasters, or the mitigation of their effects;
 - Measures to be taken for the integration of mitigation measures in the development plans;
 - Measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster;
 - Role and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (a), (b) and (c).
- The National Plan shall be reviewed and updated annually. Appropriate provisions shall be made by the Central Government for financing the measures to be carried out under the National Plan.

Guidelines for minimum standards of relief :

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

- a) The minimum requirements to be provided in the relief camps in addition to shelter, food, drinking water, medical cover and sanitation;

The special provisions to be made for widows and orphans;
Ex gratia assistance on account of loss of life as also assistance on account of damage to houses and for restoration of means of livelihood; Such other relief as may be necessary;
Relief in loan repayment, etc.

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

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

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

➤ Role of Central Ministries and Departments

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

3.4.1 Institutional Arrangements of Central Government:-

3.4.2 Armed Forces :-

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

3.4.2.1 Central Para Military Forces :-

The Central Paramilitary forces, which are also the armed forces of the Union, play a key role at the time of immediate response to disasters. Besides contributing to the NDRF, they will develop adequate disaster management capability within their own forces and respond to

disasters which may occur in the areas where they are posted. The local representatives of the CPMFs may be co-opted/invited in the executive committee at the State level.

3.4.2.2 State Police Forces and Fire Services :

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

3.4.2.3 Civil Defense and Home Guards :

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

3.4.2.4 State Disaster Response Force (SDRF):-

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

3.5 Guidelines issued by NDMA and Action thereon

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

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

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

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

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

3.10 Guidelines on Management of Earthquakes, Cyclones, and Floods broadly necessitate zonal Railways to survey their existing infrastructure with respect to earthquake, floods and cyclone preparedness based on the vulnerability maps and to take necessary action for making the infrastructure resistant to such disasters. All new construction should henceforth necessarily be disaster resistant. Guidelines on Medical Preparedness and Mass Casualty Management envisage train based casualty transport and evacuation system with following highlights:

3.11 In MCM (Mass Casualty Management), wherever required Railways needs to provide transportation facility for Mass Casualty Evacuation (MCE). Where required, ARMVs or special trains may be run to facilitate relief from the nearest coaching terminal to the disaster site.

3.12 The railway disaster plan will provide support to the community and local administration during mass casualty emergencies. Assistance through Railways' infrastructure of Hospitals etc. has to be provided as and when it is asked for.

3.13 Nodal Ministry for Management /Mitigation of Different Disasters:-

SN	Disaster	Nodal Ministry/Department
1.	Accident -Air (Civil Aviation)	Min. of Civil Aviation
2.	Accident Rail	Min of Railways (MOR)
3.	Accident Road	Min. of Road Transport and Highways
4.	Avlanche	Min. of Defence (MOD) - Border Road Organization (BRO)
5.	Biological Emergency	Min. of Health and Family Welfare (MHFW)
6.	Cold Wave	Min. of Agriculture and Farmers Welfare (MAFW)
7.	Cyclone/Tornado	Min of Earth Sciences (MOES)
8.	Eartquake	Min of Earth Sciences (MOES)
9.	Flood	Min of Jal Shakti (MOJS)
10.	Flood urban	Min of Housing and Urban Affairs (MHUA)
11.	Forest Fire	Min. of Environment, Forests, and Climate Change (MEFCC)
12.	Frost	Min of Agriculture and Farmers Welfare (MAFW)
13.	Hailston	Min of Agriculture and Farmers Welfare (MAFW)
14.	Industrial and Chemical	Min. of Environment, Forests and Climate Change (MEFCC)
15.	Landslide	Min. of Mines
16.	Nuclear and Radeology	Dept. of Atomic Energy (DAE)
17.	Oil spills	(Min of Defence (MOD) Indian Coast Guard (ICG)
18.	Tsunami	Min of Earth Sciences (MOES)

(CS. no.1 New Para 3.13 Nodal Ministry for Management /Mitigation of Different Disasters added to DMP-2026 Part -I on 03.03.2026 page no.30)

CHAPTER-4

DISASTER PREPAREDNESS: RESOURCES

The primarily responsibility of disaster management rests with the Divisions and they should be in full preparedness for effective management of Disasters.

Railways are generally self-reliant in carrying out rescue and relief operations as a result of having a well organized set up including ARMEs and ARTs. However, major accidents involving heavy casualties in remote areas or in difficult terrain or under adverse weather conditions are possible to be managed efficiently only by mobilizing non-railway resources. Disaster Management mechanism in Railways can be maintained at a high level of preparedness and efficiency by keeping all resources readily available and in good fettle.

4.1 Resources:

Resources imply both Railway and non-railway men and material including medical, personnel, transport, volunteers, police and fire services. Details of these resources, their location, contact numbers and other details have been identified, compiled and made available in Divisional DM Plans.

Resources available in case of a major accident may be grouped into 4 different units, depending on the time frame within which these can be made available after an accident. These are as follows:

1. Resource Unit I -Railway and non-railway resources available on the train, and at nearby surroundings.
2. Resource Unit II -Railway resources available at ARME/ART depots and elsewhere within the division. There are two types of Medical Equipment namely, Scale I and Scale II. Scale I equipment is stored in special Medical Relief Vans and Scale II equipment is stored in boxes in special rooms on the station platform.
3. Resource Unit III -Railway resources available at ARME/ART depots and elsewhere on adjoining Zones and Divisions.
4. Resource Unit IV Non-railway resources available within or outside the division.

4.2 Resource Unit – I

(a) On trains (carrying Passengers) the following resources are available:

- i) First Aid Box available with the Guard.
- ii) First Aid Box available with Train Superintendent and in the Pantry Car.
- iii) Portable Telephones, Fire Extinguishers in SLR with the Guard.
- iv) 2 Fire extinguishers each in all A.C. coaches, Pantry Cars and Loco.
- v) Railway electrification area emergency sockets are provided LP can contact control office through portable phone available in locomotive.
- vi) Walkie-Talkie with Guard and Loco Pilot.
- vii) Escort staff on nominated trains (RPF, C&W, Elect, etc.)
- viii) Mobile Phones/Mobile communications with Passengers.
- ix) Information collected by Train Superintendent/ Travelling Ticket Examiner about Medical Practitioners travelling on the train.
- x) Information collected by TS/TTE about Railway Officers travelling on the train.
- xi) Railway Staff travelling on the train either on duty or on leave as passengers.
- xii) Passengers travelling on the train who volunteer their help for rescue and relief work.

(b) Non-railway resources available nearby:

- i. Volunteers from nearby villages and towns.
- ii. Transport facilities available at site or passing through nearby LC Gates.
- iii. Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.
- iv. NGO's working in the area.
- v. Private doctors, hospitals, clinics, PMC's in the vicinity.
- vi. Police and other agencies of State Govt.
- vii. Army or para-military establishments nearby.
- viii. Coolies and vendors at nearby stations.
- ix. Station staff and local Railway administration can request help from non-railway sources before railways own rescue team arrives.
- (i) Such local networks are most effective in rushing assistance immediately, especially with regard to:

medical succor,
additional manpower,
rescue equipments,
lighting arrangements,
transport services,
fire fighting tools etc.

(c) Railway resources available nearby:

- (i) Engineering gangs.
- (ii) OHE staff and signal staff available.
- (iii) Other resources such as medical facilities, communication facilities, etc.

(d) At adjoining Stations:

- (i) Staff available at adjoining or nearby stations.
- (ii) Railway resources as given in respective Divisional DM Plans.
- (iii) Non-railway resources as given in respective Divisional DM Plans.
- (iv) Resources should be mobilized to send medical team at short notice as given in the respective Divisional DM Plans.

4.3 Resource Unit – II

- (i) ARMEs, ARTs with 140T crane are stabled at nominated stations. Their locations are given in Chapter- 6.
- (ii) Railway medical and departmental resources.

4.4 Resource Unit –III

- (i) Location of ARMEs, ARTs with 140T crane based on adjoining Zones/Divisions
- (ii) Section-wise chart of which ARMEs/ARTs are to be requisitioned from adjoining Zones/Divisions
- (iii) Resources of men and material available on adjoining Zones/Divisions are given in their data bank and included in the Zonal Divisional DM Plans of respective Zones/Divisions.
- (iv) Copies of DM Plans of adjoining Divisions should be available with the Divisional Control Office.

4.5 Resource Unit –IV

- (i) Non-railway resources available within the division- as given in the data bank and included in the respective Divisional DM Plans.
- (ii) Non-railway resources available outside the division- as given in the data bank) and included in the respective DM Plans of adjoining Zones/Division.

4.6 Functioning Of Disaster Management Cell

4.6.1 The Officer representing Safety Department shall coordinate the functioning of Disaster Management Cell. He shall report the accident to Railway Board/CRS/GM and update the restoration details from time to time. He shall also 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 Divisional 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.

4.6.2 The Officer representing Medical Department shall obtain all details regarding casualties/injuries of passengers involved in accident and shall maintain liaison with Accident Site, referral Hospitals and Dispensaries and shall consolidate the list of injured/casualties in minimum time so that the same can be faxed to concerned station/division for display in Emergency Control and Emergency Information Booths.

4.6.3 The Officer representing Commercial Department shall ensure ordering of refreshments for the passengers of involved train, payment of Ex-Gratia of the injured/killed passenger, arranging for transshipment of goods and passengers luggage. Hiring of Private Buses for transfer of passengers from site of accident to the nearest Rail head. The Commercial Officer shall also ensure transmission of detailed information regarding/destination Railways. He shall also ensure opening of Emergency Information Booths at important Junction stations en route within the Railways.

4.6.4 The Officer representing Mechanical Department shall assess the requirement of additional Medical Van/Brake Down Trains 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 PRO particulars. He shall obtain the restoration details regarding rerailment/topping of wagons/coaches by each individual Brake Down Train. He shall obtain the bio-data particulars of the crew involved in the accident.

4.6.5 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 labours special as per requirement at the site from the adjoining divisions.

4.6.6 The Officer representing Electrical Department shall obtain the details of extent of damage to OHE/Loco. He shall obtain the bio-data particulars of crew involved in the accident. He shall assess the requirement of additional material at the site of accident and shall organize movement to Tower Wagon/Material Special train. to the site of accident.

4.6.7 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/divisional control to Disaster Management Cell at HQ. He shall ensure installation of MTNL/Telecom. Department Public Phone/Railway Phone at the site of accident involving passenger carrying train. He shall coordinate with Test Room and Microwave Centre for faster and efficient communication. He shall obtain the information details of S&T Gears involved, if any, in the accident.

CHAPTER 5

DISASTER PREPAREDNESS: DIFFERENT DEPARTMENTS

Disaster Management mechanism in Railways can be maintained at a high level of preparedness and efficiency by keeping all resources readily available and in a good fettle. Resources imply both railway and non-railway men and material including medical, personnel, transport, volunteers, police and fire services. Details of these resources, their location, contact numbers and other details have been identified, compiled and placed in a 'Data Bank'. This Data Bank is available in the divisional DM Plan of Mumbai Central division.

5.1 Engineering Department

- Shall identify Risk zones prone for natural disasters like floods, cyclones or earthquakes with the help of meteorological department.
- Shall identify detailed inventory of major infrastructures like tracks, bridges should be kept readily available and analysis of its strength to withstand such disasters.
- The action plan for Weather and Cyclone warnings shall be followed according to the Joint Engineering/ Operating Circular Shall ensure arrangement of essential items like empty bags, sand, dust, cinders etc. ready to be moved to vulnerable location of needs.
- Intensified patrolling at vulnerable location.

5.2 The yardstick for Engineering materials

The details of the yardstick for Engineering materials to be kept in Accident Relief trains are given in southern railway web site.

5.3 Track Material:

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

In addition to the track materials loaded to the BFRs, the following track material should be kept as a reserve stock. These materials should preferably be stacked close to a siding, so that they can be loaded easily for dispatch.

- (a) Track materials for laying 500m of track.
- (b) Switches Left Hand and Right Hand, one set each, 1 in 12 as well as 1 in 8.5 turnouts, along with crossing and lead rails etc.
- (c) One set of fan shaped turnout concrete sleepers for 1 in 12 as well as 1 in 8.5 turnouts.
- (d) One set of SEJ along with the concrete sleepers.
- (e) One set of concrete sleepers for level crossings including check rails & corresponding fittings etc.
- (f) Adequate number of bridge timbers depending upon the type, number and span of the existing bridges in the division.

5.4 Labours

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

5.5 Mobility

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

5.6 Equipments and Miscellaneous

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

- The above are only guidelines. The Division may keep these in view while formulating the detailed Action Plan for their jurisdiction.

5.7 Mechanical Department

- Shall ensure that ART, ARME/ SPART are equipped with sufficient tools to handle cutting of tress etc. and availability of portable genset, gas lamps etc.
- Shall ensure immediately availability of tank wagons for carrying water at important stations.

5.8 Medical Department

- Shall ensure availability of adequate medicines first and materials or disinfectants etc. at health unit/hospitals near the forecast warned places.
- Shall take enough measures to prevent epidemics in co-ordination with engineering department for sanitation and drainage and disinfection.

5.9 Electrical Department

- Shall ensure availability of stand-by power (generator) and strategic locations.
- Tower wagons with quick mast erection facilities, sufficient spares should be kept ready at Tower wagon shed.

5.10 Telecommunication Department

- Shall ensure proper communication with adequate facilities like wireless communication, satellite phones etc.

5.11 Transportation Department

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

5.12 Ensuring full complements of Brake van equipment

- At the originating and interchanging points of all passenger carrying trains, it must be ensured that these trains run with full equipment of brake van as prescribed by GR, SR and other special instructions.
- The Officers and Senior Subordinates of the Traffic, Mechanical, S&T, Electrical, Engg. Departments must examine these equipments regularly and take necessary action to ensure that they are in good working condition.
- The first Aid Box and the stretchers should also be examined for this purpose by the concerned Medical Officers.
- The Guards/Asst. Guards of the passenger carrying trains while taking over the charge of these equipment should also ensure that they are in good working condition.

5.13 Commercial Department

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

5.14 Security Department

- To ensure alertness of security personnel to accompany relief material trains to help vulnerable station in handling public enquiries to move to location vulnerable.

5.15 Disaster Management Team of RPF

There should be a Disaster Management Team of RPF on each Division of IR composing about 15 men in different ranks. This team shall be specially trained in providing necessary support for disaster management over the Division/neighboring Division. RPF should play an active role in managing law and order at site.

5.16 Equipment for RPF

This Disaster Management team of RPF should have the following equipment available with them:

- i) Torches and other lighting arrangements.
- ii) Nylon ropes and poles for segregating the affected area from unwanted visitors and spectators.
- iii) Loud-hailer for making announcements.
- iv) Stretchers and first aid equipment
- v) Wireless sets for inter-communication.
- vi) Cameras for photographing the scenes.

5.17 Preparedness at the Divisional Level

The Divisional Disaster Management plan shall contain the following information. Review and updating of this information should be done in the first quarter of every year.

- a) Telephone Nos. including Mobile Nos. of all important railway officials at both Zonal Divisional level and telephone Nos. of all stations, blocks etc.
- b) Location of ART&ARME/SPART within Division and adjoining division and adjoining Zonal Railways.
- c) Inventory of medical facilities within Division, Doctors, Hospitals, Nursing Home, Ambulance.
- d) Details of District & State officials Details of Fire service stations.
- e) Details of Defense establishment including Army, Navy & air force.
- f) Details of Helipads/location where a small plane or helicopter can land
- g) Details of social organization / NGOs.
- h) Inventory of agencies for earth moving equipment like crane, bulldozer, hiring boats, road vehicles etc.
- i) Details of skilled divers with their name and address.

- j) Details of road Transport, distance map superimposed on division map, detailed road map, etc.
- k) Details of forensic personal.
- l) List of materials of ART&ARME.
- m) Details of important bridges and its locations.
- n) Details of Para military establishments.
- o) All the above updated information should be readily available with Divisional Control office.

5.18 Display at Railway stations

Each railway station shall maintain a complete list of above in addition to the following details and should be displayed in a prominent place.

- i. Details of state govt. officials in which jurisdiction of station comes with their Name, Designation, Telephone Nos., etc.
- ii. List of persons qualified for providing first aid.
- iii. List of Private Doctors
- iv. List of Railway Hospitals
- v. List of conveyance available

5.19 Railway hospitals

Each Railway Hospital/Hospital Units should similarly maintain a display containing information about other Govt./ Private Hospitals nearby, Govt./Pvt. Doctors, Social Organizations having ambulance facilities, details of voluntary organizations in the nearby locality, Blood bank and blood donor details. All these details must be available in the respective stations also.

5.20 General

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

CHAPTER -6

PHASES OF DISASTER MANAGEMENT

6.1 Phase-I:

It begins with the spontaneous reaction of men available on the train at the time of the accident. In the period immediately after the accident, the following action has to be taken on war footing by Railway Officials/Officers.

- 6.1.1** Guard, Driver, conductor and TTEs. Etc. must pass on the information quickly to the nearest station or to the controller about the accident. Being trained in first aid, they should simultaneously render every possible medical aid to injured people.
- 6.1.2** Senior most Officer travelling by the affected train, whether on duty or on leave shall take charge at site.
- 6.1.3** At Railway Officers and staff available on train must report to the Guard and work as per the directions of senior most Officers.
- 6.1.4** SMs of the adjoining stations must inform Control about the happening.

6.2 Phase-II:

Second phase continues with contributions made in rescue and relief work by men and material available locally in nearby areas of the accident site and with the arrival of relief train. The Senior Most Officer who reaches the site first becomes the 'Officer-in-charge (site)'. All staff and Officers work as per the directions of the Officer-in-charge (site).

6.2.1 Site Organization:

- i. Medical relief camp
- ii. Security of luggage
- iii. Clue preservation
- iv. Relief Rescue and Restoration
- v. Co-ordination with civil & press
- vi. Liaison with control.
- vii. Communication – STD phones, Walkie- talkie
- viii. Lighting arrangements
- ix. Commercial – information booth, Arrangement of Food and Water, evacuation of passengers including road vehicles, payment of ex-gratia etc.

Note: The medical team reaching the spot must comprise of adequate number of doctors and staff. The Senior Most Doctor & Officer at site should have all details about dead/injured and hospitals where they have been sent.

6.2.2 Special Task Teams:

SN	Medical	Medical Relief and transportation to hospitals
1	Commercial	1. Catering-food and drinking water 2. Liaison with Civil administration and Press.
2	Commercial & RPF	Security of luggage
3	Operating	Liaison with Control and arranging logistics including shunting.
4	S&T	Establishment of communication and free telephone booths.

5	Mechanical	Relief operations including rescue and re-railment and preservation of clues.
6	Electrical	Lighting arrangement
7	Personnel	Assist Doctors. WLIs to assist injured passengers admitted in the hospital.

6.3 Phase-III: The third and longest phase consists of meticulously planned action by trained DM teams who arrive at the accident site to carry out rescue and relief operations .(Handling Injured Passengers)Mainly refers to dealing with injured passengers. Following action must be Planned –

6.3.1 Relief trains clearing injured or stranded passengers must get overriding priority.

6.3.2 Road vehicle can also be arranged for stranded passengers.

6.3.3 List of injured, hospital-wise, should be conveyed to all concerned.

6.3.4 Ex-gratia payment should be arranged.

6.4 Phase-IV: (Restoration of Traffic)

Without affecting the relief operations, restoration of normal traffic should be planned and acted upon. Restoration of passenger's services gives a sense of normalcy besides, provides means to relatives of victims to visit and attend to them. It comes to an end not only with the restoration of traffic but with the departure of most relatives and next of kin from the accident site and disposal of all bodies. Few of the grievously injured who continue to be hospitalized for comparatively longer spells are then the sole responsibility of railway's medical department.

6.5 Arm Bands: Rescue team members must wear armbands and Jackets. Armband for doctors should be a White cross in Red back ground.

6.6 Cold cutting:

Extreme care must be exercised while tackling damaged coaches.Cold cutting equipments should be used on coaches with passengers to avoid burns to passengers by use of flame cutting.

6.7. Handling dead/injured:

Dead body should be handled with care and respect.

Cover dead bodies with white shrouds, which should be available in ARME.

Expeditious issue of death certificate.

List of dead and injured must be passed on from time to time.

A Photographer should take coloured photographs of the dead and injured.

6.8 Free food, drinking water, tea etc:

Food and clean drinking water must be rushed from the nearest source. Free food and beverages must be supplied.

6.9 Correct picture of media:

Press and other media should be given correct picture in time.Only GM, DRM and CPRO are competent to interact with press and electronic media. Apart from the above any other Officers authorized by GM is competent to interact or give interview to press electronic media.

6.10 Action To be taken at Divisional HQ Level:

- i .Opening up of Special enquiry booths at originating, terminating and en-route stations.
- ii. Phone numbers should be relayed through TV, Radio and Press.
- iii. Setting up information Centre to organize collection of data , statistics , to assess magnitude of damage and level of arrangements for rescue operations.
- iv. Make arrangement for evacuated passengers to be sent to destinations. Co-ordinate with MCGM Control room for mass transport requirement or transport vehicles may be hired.
- v. Co-ordination with MCGM control room for draining of flood water from railway track or any other addition resources required as per site condition.
- vi. To co-ordinate with medical and first aid facilities with Railway hospitals and MCGM control room.
- vii. Furnishing updated position of dead, injured and evacuated passengers.
- viii. Arrangement for issue of free Railway passes for relatives.
- ix. In case of major disaster, DRM can requisition helicopter/Aero plane press should be briefed properly and quickly
- xi. HQ/Board should be advised quickly of the factual position and site condition.

CHAPTER- 7

7.0 ACCIDENT RELIEF MEDICAL EQUIPMENT , ACCIDENT RELIEF TRAIN, SELF

7.1 Location of ART/ARME/SPART/SPARME: Composition of Rolling Stock ARTs, 140 T Cranes, ARMEs SPARTs/SPARMEs in BCT Division.

Stn	Details	Shed / Depot	Composition of Rolling stock ARTs,140 T Cranes, ARMEs SPARTs/SPARMEs			
			Total No of Vehicle	Coach/Wagon/ Crane No.		Utilization of Wagon & Coach
BA	HS SPART	BA(Dsl) Shed	1 st Vehicle	220062	ART-TV	Re-railling Equipments Tower Light and Packing S&T Equipments, Medical Box & Wire Rope
			3 rd Vehicle	220063	ART-MV	Medical Van
			2 nd Vehicle	227912	ART-SV	Staff rest Van, Kitchen &Generator Van
BL	ART (Class-B)	C&W Depot, BL	1 st Vehicle	94122213 066	BRN HS	For Engineering material
			2 nd Vehicle	30089961 787	BCN HS	For Engineering material
			3 rd Vehicle	049740	GSLRD	C&W Spares, Engineering & OHE material(As per CAMTECH guidelines Provision of Guard seat with Guard van valve)
			4 th Vehicle	93541	RT	Generator, Telecom & OHE Van
			5 th Vehicle	921035	RSM	Kitchen cum staff van
			6 th Vehicle	921106	RT	HRE Van
	ARME (Scale-I)		1 st Vehicle	002081	RH	Medical Equipment
			2 nd Vehicle	986261	RHV	Rescue equipment
UDN	140T DHBD Crane & ART (Class-A/4 Coach)	C&W Depot, UDN	1 st Vehicle	141002	140T DHBD	140 Tones Diesel
			2 nd Vehicle	56160873 749	BRNAHS T	For packing & slings for 140 Crane
			3 rd Vehicle	921182	RT	140 T Crane Crew Rest Van
			4 th Vehicle	933641	RSM	HRE & Gas Cutting equipments van
			5 th Vehicle	982972	RT	Kitchen cum staff van
			6 th Vehicle	974127	RT	Tool cum staff Van
			7 th Vehicle	933126	RT	Generator, Telecom & OHE Van.
			8 th Vehicle	31130312 015	BCN HS	For Engineering & Signal Material
			9 th Vehicle	56110858 987	BRN HS	For Engineering Rail.

	SP-ARME (Scale-I/ 03 Coach)		1 st Vehicle	190025	AR-TV	Tool Van
			2 nd Vehicle	190026	AR-MV	Medical Van
			3 rd Vehicle	193764	AR-SV	Supervisor Van
NDB	ART (Class-B)	C&W Depot NDB	1 st Vehicle	67131247 605	BRN HS	Engg .& S&T Equipments& Material
			2 nd Vehicle	30039460 063	BCNHST	Engg. Equipments& Material
			3 rd Vehicle	XA043402	RHV	Kitchen cum staff van
			4 th Vehicle	X032106	RSM	Generator and Tool van
			5 th Vehicle	X012264	RT	Officers and Tool van
			6 th Vehicle	X933065	RSM	ART Equipment Van (MFD Van))
	ARME (Scale-I)		1 st Vehicle	XV932650	RH	Medical Van
			2 nd Vehicle	XV 986090	RHV	Auxiliary Relief Van
BIM	Class 'C' ART	C&W Depot BIM	1 st Vehicle	90107	SLR	Tool & Equipments Van (Material of Engg, Elect & C&W) & staff Van.

Disaster Management Infrastructure:-

Vide Rly Bds letter No. 99/M/(M&P)/7/6 dated 24.9.2009 & CAMTECH guidelines
IRCAMTECH/GWL/MECH/2022-23/ART/Manual/1.1 Sept-2022.

7.2 TARGET TIME FOR MOVEMENT OF ACCIDENT RELIEF TRAIN:

During Day	Time for turning out	30"
	Time for Despatch	15"
	Target time from ordering to departure	45"
During Night	Time for turning out	45"
	Time for Despatch	15"
	Target time from ordering to departure	60"

7.3 TARGET TIME FOR TURNING OUT OF MEDICAL RELIEF VAN FROM SIDING AND DESPATCH FROM THE STATION

In case of double exit	Time for turning out	15"
	Time for Despatch	5"
	Target time from ordering to departure	20"
In case of single exit	Time for turning out	25"
	Time for Despatch	5"
	Target time from ordering to departure	30"
TARGET TIME FOR TURNING OUT OF SPARME CUM SPART		
In case of double exit	Time for turning out	10"
	Time for Despatch	10"
	Target time from ordering to departure	20"
In case of single exit	Time for turning out	20"
	Time for Despatch	10"
	Target time from ordering to departure	30"

7.4 RUSHING OF ARMES AND ARTS TO ACCIDENT SITE :

1.	Movement of ARME and ART should never be clubbed together. ARME should be started first and moved separately for faster movement.
2.	If an engine is not readily available, the nearest engine of any train including Mail/Express trains should be released and utilized for expeditious dispatch of these.

3.	ARME and ART must be given precedence over all other trains while proceeding to the site of accident.
4.	ARME and ART should not be detained for want of Guard but may leave in the charge of any responsible Traffic/C7W/loco Official. A guard may be sent by quickest possible means later on.
5.	ARME/ART or any special relief train, carrying injured persons to hospitals, must also be given top most priority.
6.	The Accident Relief Trains after completing relief operations must be marshaled properly (the crane should never be at the rear) at adjacent station before worked back to their base stations without any delay and must be given precedence over all goods trains. Prior to stabling at base station train must be marshaled as per crane marshalling order at any suitable stations.

7.5 ARME SCALE II LOCATIONS : Palghar station, Billimora station, Ukai Songadh station, Nandurbar station and Amalner station.

7.6 Accident Relief Medical Equipment:

- (a) The Medical Officer in charge is responsible for ensuring that the prescribed contents of the accident relief medical equipment (Scale-I and II) are maintained in the chests and are in good condition. Whenever required, the medicines, surgical appliances and other articles must be replaced.
- (b) Where Scale II equipment is stored in the Station building, the Station Manager/Station Master shall be responsible for the safe custody of the boxes. Whenever this equipment is sent to the site of accident, the Station Manager/Station Master shall ensure that the boxes are received back in time and kept at the proper place. On return of the boxes after use, the medical officer in charge should check the same and arrange immediately for necessary replenishment of the articles used. In addition, the medical officer in charge and the Station Manager/Station Master will inspect this equipment once in a month.
- (c) Medical Officer in charge of the Division shall inspect the Scale-I and Scale-II equipment quarterly and ensure that all the prescribed contents are maintained in good condition.

7.7 Accident Relief Medical Equipment:

In general, mock drills have to be conducted once every quarter for every location of ARTS/ARMV's during either day or night.

In a division where Class 'A' ARTs/Class 'B' ARTs/Scale ARMVs are stationed at more than three locations, mock drill may be carried out for all such ARTS/ARMVs in that division at least once in six months evenly spaced out over the period.

ART/ARMV turned out on account of accident will qualify as mock drill Blocks of quarters should be considered from April to June, July to September, October to December, January to March as per Rly.Board letter No.2010/Safety (DM)/6/23 dt. 31.1.2020 and 09.3.2027. The details of preparedness viz. turning of ART/ARME, turning up of doctors/staff, restoration process etc., can be tabulated and taken as a mock drill for the purpose of statistics.

In carrying out these drills the following points should be carefully borne in mind:

- i) Every drill should be made as realistic as possible.
- ii) Arrangements regarding the drills should be kept confidential.
- iii) The turnout of a relief train should be completed with full complement of equipment and staff.
- iv) These drills should be ordered by the DRM personally and conducted under the direct supervision of an officer not lower in rank than Senior Scale Officer.
- v) The results of mock drills should be maintained in a special register along with the particulars of corrective actions taken wherever necessary. The results should also be communicated to the PCSO and General Manager.

CHAPTER- 8

DISASATER RESPONSE-INSTANT ACTION TEAM

8.1 Instant Action Team comprises:

- 8.1.1 The Guard, Crew, TS, TTEs, AC coach attendant, Asst. Guard, RPF and other railway staff on duty on the accident involved train.
- 8.1.2 GRP staff travelling on the train on duty.
- 8.1.3 Railway staff travelling by the accident involved train either on duty or on leave as passengers.
- 8.1.4 Doctors travelling by the train.
- 8.1.5 Passengers travelling on the train who volunteer for rescue and relief work.
- 8.1.6 Railway staffs working at site or available near the site of the accident.
- 8.1.7 Non-Railway personnel available at or near the accident site.

8.2 CHECKLIST OF ACTION TO BE TAKEN:

8.2.1 Duties of Engine Crew:

- i. To check that flasher light is on.
- ii. Arrange to protect the train in accordance with G&SR 6.03.
- iii. If adjacent line is obstructed by any vehicle, inform ASM to raise signal or ensure that the signals are put back to 'ON' and also inform TPC to switch off power on adjacent line to avoid movement on adjacent line.
- iv. Convey information by quickest means to control with details as per Para 502 & 503 of accident manual.
- v. Ensure that the portions of the track, rails, fishplates, bolt and other fittings which appear to have been tampered with are not touched or moved by any person and closely watch them and give report to Civil and police authorities on their arrival.
- vi. To take such technical precautions as may be necessary or prescribed to render his locomotive and train safe.
- vii. Not to give any statement to the press, unless authorized to do so.

8.2.2 Duties of Guard:

- i. Ensure securing of vehicle by application of hand brake etc. As per rules.
- ii. Arrange protection of adjacent line(s) and same line, as per G&SR 6.03.
- iii. Assess nature of accident, take action to save lives and render First Aid.
- iv. In case OHE has been damaged, prompt steps should be taken to get the same de-energized and traction wires secured.
- v. Call for doctors if any on the train, and seek their assistance.
- vi. Install PCP/ECP or send information through train engine after taking all precautions or stop train, trolley, tower wagon in either direction or send information through other means and convey information as per Para 503 of chapter V Accident Manual to Control/Station Masters.
- vii. Ask for
 - (a) Medical assistance/ART
 - (b) Arrangements for transportation of dead/injured/stranded passengers.
 - (c) Assistance if required, for unloading wagon/parcels etc.
- viii. Attend to injured: arrange their transportation by front non-derailed vehicles if possible or by road or other means.
- ix. Post an available railway employee on the field telephone.
- x. Send railway servant(s) willing volunteers available on the train to the nearest station/police station/hospital/village for seeking assistance.

- xi. Organize group of railway men or volunteers to assist in relief operations before regular medical aid is available
- xii. Asstt. Guard/RPF Sainik/Staff travelling on the train if any is utilized for rendering all possible assistance to the affected passengers. This includes carrying of injured to safe place for first aid, arrangements for drinking water and securing the luggage and articles of the passengers.
- xiii. Preserve all clues of possible cause of accident.
- xiv. Render help to conductors/TTEs in identification of the injured and dead
- xv. Arrange protection of property of passengers and railway.
- xvi. In consultation with Control check if front and rear portion. The portion of the train, not affected by accident, can be safely drawn to the adjacent station so that medical van, relief train can be received nearest to the accident site.
- xvii. Do not leave the site of accident till permitted by competent authority.

8.2.3 DUTIES OF TTE/TRAIN SUPDT:

- i. Ascertaining if any doctor is travelling by Train either by scrutinizing reservation chart or making verbal enquiry, and arrange for first-aid to the passengers.
- ii. Preparing list of dead and injured. If doctor is available, the list should be classified as under:-
 - a) Dead
 - b) Grievous injury
 - c) Simple injury
- iii. Details of the dead and injured should be obtained from the reservation chart, tickets held, (to and from) or co-passengers. Assistance of Police travelling in the train to be also obtained for identification.
- iv. The following details should be collected:
 - a) Tickets of the passengers travelling (to and from)
 - b) Ticket numbers – Class
 - c) Coach no and its position from the engine
 - d) Address of injury (simple, grievous)
- e) Custody of luggage and other belonging – in case of injury, this should be kept by the TTE and in case of death, it should be handed over to GRP with full details and obtained.
- v. He should record evidence of willing passengers with full particulars. If some passengers are willing to give evidence later on, their names and address should be recorded.
- vi. He should record the number of dead and injured, (simple, grievous), if they are already transported by the local people to the nearest hospital before the Railway Doctor arrives.

8.2.4 AC Mechanic / Attendant:

- i. Switch off the power supply to avoid short-circuiting.
- ii. Assist the TS/TTEs in their duties at the accident site.
- iii. Report to the guard of the train for assistance.
- iv. In case of fire assist the operations by using fire extinguishers provided in the AC coaches.
- v. Assist in providing lighting in affected coaches.
- vi. Blankets and linen of the AC coaches is to be made available for use by grievously injured/dead. The record of the same should be kept.

8.2.5 RPF/GRP Staff:

- i. Try and rescue as many passengers as possible from the accident involved coaches.
- ii. Render First Aid to injured.
- iii. Arrange to shift injured persons to the nearest hospital.
- iv. Protect passenger's luggage and railway property.
- v. Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed.

8.2.6 Railway staff travelling on the accident affected train:

- i. Whenever a train is involved in a serious accident with casualties/injuries to passengers, all railway staff travelling on the train either on duty or on leave are deemed to be on duty with immediate effect.
- ii. Under no circumstances should any of them leave the accident site unless and until divisional officers arrive, take over charge of rescue and relief operations, and permit them to leave.
- iii. Railway staff on train/at site shall volunteer themselves to render assistance and report to TS/TTE/Guard of the Train.

8.2.7 The senior most officers travelling on the train will assume charge as Officer-in-Charge Site (OIC Site):

- i) Normally the senior most officers will be travelling in either the 1AC or in 2AC coach, and most probably in the Emergency Quota section of the coach. The Emergency Quota section of 2AC is invariably in the centre of the coach (berth nos. 19-22). In any case the TS/TTE would know whom are the railway officers travelling in 1AC or 2AC.
- ii) Similarly, other railway staff will be travelling in 3AC coach, and most probably in the Emergency Quota section of the coach. The Emergency Quota section of 3AC is also in the Centre of the coach (berth nos. 25-30).
- iii) Similarly, some Group 'D' railway staff may be travelling in Sleeper coach, and probably in the Emergency Quota section of the coach. The Emergency Quota section of a Sleeper coach is located in the Centre of the coach (berth nos. 33-40).
- iv) In the absence of any officer, the TS or senior most TTE/Guard will discharge duties listed out for OIC site.

CHAPTER- 9

DISASTER RESPONSE FIRST RESPONDERS

9.1. Duties of OIC Site (Immediately after the accident):

The senior most staff/officer traveling in the train is termed as OIC Site. He may be train superintendent or senior most TTE, if, no officer traveling in that train.

- 9.1.1 Note down the time of accident.
- 9.1.2 Ensure protection of traffic by Guards and Loco Pilots.
- 9.1.3 Ensure reporting of accident to nearest Station/Control.
- 9.1.4 Roughly assess the extent of damage and likely number of casualties.
 - 9.1.5 Collect railway staff and volunteers from amongst the passengers and form different groups. Each of these groups should be assigned work as detailed at item 6 below.
- 9.1.6 Maintain a log of events.
 - 9.1.7 Till Divisional Officers arrive and take over charge of the situation, continue to discharge duties of OIC Site.
 - 9.1.8 After Divisional Officers arrive, fully brief the DRM/ADRM(O)/ADRM(T) and hand over charge to him.
 - 9.1.9 The on board OIC Site should ensure issue of a detailed message with following information before leaving the site of the accident.
 - i. Time/Date of accident.
 - ii. Location Km./between stations
 - iii. Train number and description.
 - iv Approximate number of killed/injured.
 - vi. Extent of damage.
 - vii. Assistance required.
 - viii. Condition of the adjacent line, if any.
 - ix. Whether OHE is involved.
 - x. From here onwards, the DRM of the accident involved Division takes over charge as OIC site.

9.2 Formation of groups comprising members of Instant Action team:

- 9.2.1 OIC Site shall immediately collect all Railway staff on train/at site and form separate groups.
- 9.2.2 Passengers traveling by the same train who volunteer for rescue and relief work should also be drafted into these groups.
- 9.2.3 Passengers from accident-involved coaches should be directed towards unaffected coaches.
- 9.2.4 In the absence of OIC site, TS/TTE shall take steps to form such groups.
- 9.2.5 In the absence of TS/ TTE, Guard/Assistant Guard shall take steps to form such groups.
- 9.2.6 5 or 6 groups should be formed depending on number of coaches involved.
- 9.2.7 Ideally, one group should be formed for handling each coach.
- 9.2.8 In case sufficient numbers of officers are present, then one officer should be made in-charge of each group.
- 9.2.9 Otherwise, Sr. Supervisors traveling by the accident-involved train should be nominated as in-charge of each group to co-ordinate its working.
- 9.2.10 In case sufficient numbers of Sr. Supervisors are also not present, one TTE should be nominated as in-charge of each group to coordinate its working.

9.2.11 Each group should rescue injured, entrapped passengers.

9.3 Duties of On board Railway staff immediately after the accident:

- 9.3.1 Don't panic. Once the accident has already occurred and the train has come to a standstill nothing worse can happen.
- 9.3.2 In case you have a CUG Mobile/Mobile and it is working, inform the Divisional Control Office immediately about the accident.
- 9.3.3 Observe the position in which your coach has stopped; whether it is standing upright or turned upside down or lying on its side.
- 9.3.4 Try and see whether the coach has stopped on a bridge or whether there is level ground on both sides.
- 9.3.5 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 hurry to leave the coach. You may be jumping from the frying pan into the fire.
- 9.3.6 Search your coach with your torch and try to determine the general position.
- 9.3.7 See that passengers don't get panicky. Passengers sometimes make things worse for themselves by panicking at this critical movement. Try to calm them and built up their confidence.
- 9.3.8 Ascertain whether passengers are injured or not; and whether any of them are trapped or pinned down inside the debris.
- 9.3.9 Call out aloud and find out whether there are any doctor(s) present.
- 9.3.10 Doctors who are traveling in the coach should be asked to announce their presence so that they can attend to and help injured passengers.
- 9.3.11 Call out aloud and find out whether there are any railway staff present in the train.
- 9.3.12 Railway staff who are traveling in the coach should be asked to announce their presence so that they can attend to and help other passengers.
- 9.3.13 For each coach, form a core team comprising of railway staff available, doctors injured and uninjured.

9.4 Duties of members of Instant Action team - till arrival of divisional officers: 9.4.1 If a person is bleeding and losing blood, or if he is unconscious, then in that case you have to act quickly. 'Golden Hour' should be kept in mind. You may have at the most only one hour's time on hand.

- 9.4.2 In such cases, immediately administer First Aid to the injured passenger and try to stop further loss of blood.
- 9.4.3 Persons trained in first aid may do 'Cardio Pulmonary Respiration'. This may save several lives.
- 9.4.4 If the door is open and is accessible, then uninjured passengers should be helped to come out through the door.
- 9.4.5 AC coaches the windows panes should be broken open in order to let in fresh air for the occupants, and thereafter to evacuate them.
- 9.4.6 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.
- 9.4.7 Special care should be taken while evacuating the old, infirm and children in order to ensure that they are not separated from their family members as far as possible.
- 9.4.8 Extrication of critically injured should be done under medical supervision as far as possible.
- 9.4.9 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 damage takes place. (Bed sheets will be available in AC coaches).

- 9.4.10 Passengers who are bleeding from open cuts should be tied up with strips of cloths so as to reduce bleeding as far as possible if cannot be stopped completely.
- 9.4.11 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 less chances of being stolen or pilfered.
- 9.4.12 After passengers have been evacuated from your coach, cross check with the reservation chart and against the name of each passenger note down as to whether the passenger is injured or not.
- 9.4.13 After all passengers have been evacuated, water and eatables can be taken out gradually.
- 9.4.14 Building up confidence of injured passengers by suitable advice is of great 9.4.15 After helping to evacuate all passengers from the reserved coach go over to the unreserved coaches and provide similar help to those passengers also.
- 9.4.16 Railway officials from divisional Hqrs. generally arrive at the site of the accident within 2 to 3 hours, depending on the distance of the accident site from the divisional Hqtrs. Wait for them to come and make further arrangements.
- 9.4.17 Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalization. In case some local people have arrived by that time, their help should be taken in shifting the grievously injured to the nearest hospital.
- 9.4.18 In case your train has been involved in an accident but neither has your coach derailed nor are any passengers of your coach injured, then you should go to the unreserved coaches and carry out the duties as listed above.

9.5 Duties of the Instant Action Team - In case of Fire:

- 9.5.1 In case of fire, pull the Alarm Chain and stop the train immediately. 9.5.2 Try to put out the fire before it becomes a big blaze by using either water/blankets/fire extinguishers available with Guard's lobby, AC coaches and Locomotive.
- 9.5.3 More people expire due to suffocation from smoke rather than due to actual burning .Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils.
- 9.5.4 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.
- 9.5.5 Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
- 9.5.6 Make sure that no passenger lies down on the floor.
- 9.5.7 After train has stopped, passengers should come down from the coach immediately.
- 9.5.8 Building up confidence of injured passengers by suitable advice is of great importance.

9.6 Duties of OIC SITE - Till arrival of Divisional Officers: Having formed different groups consisting of available railway staff on the train and volunteers from amongst passengers, the rescue and relief work should be got started in right earnest. This entire exercise would take about 30" time. Once the rescue and relief work by the Instant Action Team has got underway, the OIC site should devote his attention to N contacting First Responders.

9.6.1 Locating nearby villages:

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

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

9.6.2 Locating the nearest manned Level Crossing gate:

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

9.6.3 Organizing assistance from local people available in nearby villages:

- i. Villagers should be asked to make an announcement from their loud speaker
 - a. Tractor trolleys (both for transportation as also for general lighting)
 - b. As many cutting implements, hammers, chistles etc. as are available.
 - c. Ropes & Ladders.
- ii. If doctors or Para-medical staff are available in the village they should also be sent to the accident site.
- iii. The messenger should stay back and try and organize opening of a big building

9.7 Role of First Responders - Local people:

9.7.1 At accident site:

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

9.7.2 In villages/towns:

- i. A big building, preferably a school building should be got vacated and made ready for keeping of dead bodies and unclaimed luggage of passengers.
- ii. They should be asked to bring the following to the accident site for train passengers.
 - a. Tea and refreshments.
 - b. Warm clothing, if required.
- iii. Look after injured passengers who have been taken to the village.
- iv. Take injured passengers to the nearest hospital by means of any transport available. For this purpose, apart from tractor trolleys even trucks passing on the highway can be utilized.

9.8 Duties of First Responders – Railway Staff:

9.8.1 Gang Staff:

- I. On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- II. Ensure that track alignment or lines are not disturbed.
- III. Report to OC Site and assist in rescue and relief work.
- IV. Assist in extricating injured passengers from coaches.
- V. Assist in transporting them to nearest hospitals.

9.8.2 Gateman:

- VI. Keep gate closed if the train has not cleared the gate.
- VII. He shall arrange to inform SM immediately under exchange of private number regarding the nature of the accident.
- VIII. Collect men and material available nearby and direct them to site.
- IX. In case the gate is involved in an accident, which obstructs and fouls the track and the gate is provided with the gate signals, then the signals shall be put to 'ON' position immediately.
- X. If the Boom/Wing is broken he shall close the gate with Safety Chain. Keep gates closed if the train has not cleared the gate.
- XI. He shall immediately fix Red Banner Flag in Daytime and Red Lamp in Night time on wooden staff at both ends of the gate 5 meters away from the obstruction on either side.
- XII. On double/multiple line section he shall stop any train approaching the accident area by showing Danger Hand Signals.
- XIII. He shall rush with Detonators, Fuses and Red Flag by Day to Red Hand Signal by night in the direct of the approaching train and place one detonator at a distance of 400 Mts. on MG & 600 Mts. on BG line. Thereafter he shall proceed to a distance of 800 Mts. on MG & 1200 Mts. on BG section and place three detonators on the track 10 Mts. apart. After that he shall return to the level crossing gate picking up the intermediate detonator on his way back. Thereafter he shall proceed towards the other direction and place the detonators similarly.
- XIV. On returning to the gate he shall not meddle with the clues and evidences of accident & also not tamper with the interlock system.
- XV. Avail services of road vehicles waiting or passing through LC Gate.
- XVI. Send message to nearby village, informing them regarding the accident.
- XVII. On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- XVIII. Parting of Trains: If a gateman notices that a train has parted he shall not show a stop hand signal to the pilot, but shall endeavor to attract the attention of the pilot and

guard by shouting gesticulating and displaying a Green Flag by Day and white light by night in Up & Down Vertically as High & Low as possible.

- XIX. Gateman shall not leave his gate unless other gateman has taken charge of it. If it is necessary to leave his gate in an emergency, before doing so, he should close and lock the gates against the public road and must inform and get permission to do so.

9.8.3 Cabin man:

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

9.8.4 Points man:

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

9.8.5 Station Superintendent Station Master/Assistant Station Master In charge:

- I. He shall quickly & promptly convey all type of information to adjoining stations and section control.
- II. He shall arrange protection of traffic by keeping relative signals at 'ON' position and also arrange to preserve the clues/evidences of accident.
- III. He shall call for the 'ON' duty & 'OFF' duty staff at the site of all departments including RPF & GRP staff.
- IV. Communication with civil authorities, Village, Town, Cities, NGO Representatives/ Volunteers for possible relief assistance.
- V. Call for assistances for medical aspects from civil/private doctors and Army medical hospitals. Mobilize local medical team and injured passengers to hospitals. Quickly transport of ARME Scale II equipments.
- VI. Passenger assistance: Arrange drinking water beverages and refreshment free of cost either from refreshment room and local resources. Open emergency counter and display necessary information regarding dead/injured passengers and convey it. Make

frequent announcement about diversion, cancellation and regulation of train services and arrange for refund of fares as per extent rules.

- I. Transport assistance: Arrange transporting injured passengers to nearest hospitals apart from tractors, trolleys, Trucks, Buses passing on the Highways/nearby can be utilized or by hiring road vehicles.
- II. Security assistance: Arrange RPF/GRP/State Police to provide security to passengers there belongings and Rly. Properties. They should also be asked to assist in rescue and relief work.
- III. Communication Assistance: Direct passengers to PCO booths available nearby and issue free telegram and make available STD phone to relatives of dead/injured.
- IV. Sending manpower: Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- V. Preservation of clues and evidences: Secure records related to accident in the Station/Cabin.

Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.

- vi. Protection: Protect adjacent lines then protect the same line on either side. Note the position of points etc. and clamp the points against the line on which the train is affected. Put "Line Blocked" lever collar in cabin / SM's slide control from where the lever is operated.
- vii. He shall not relive the site of accident till the Traffic Inspector or Divisional Officers relieves him.

9.8.6 Duties of Control staff:

i. Section Controller -

- a. He shall advise the Dy.TNL/CTNL and note important details in dairy and chart.
- b. He shall advice the TI, PWI, CSI, CMI, AEN, Railway doctor etc. Of the section immediately.
- c. He shall keep loop lines of adjacent stations clear of affected section.

ii. Dy. TN L/CTNL –

- a) He shall advise all concerned Officers, Supervisors, Inspectors and CMS/Railway doctor in charge as per extant rule
- b) He shall order ARME/ART at once.
- c) He shall inform police officials and collector concerned wherever required.
- d) He shall inform HQ Emergency control.
- e) He shall maintain Accident Log Register in chronological order of information received on right side page and information/instruction passed on/out on left page of the register.

9.9 Duties of Safety Branch:

9.9.1 Sr. DSO:

- i. In case of major accident Sr.DSO will accompany ART/ARME or faster mode of transport to reach the site as per instruction of DRM.
- ii. He will inspect the site and ensure preserving the clues for accident enquiry by instructing the concerned officials of Engg., Elect., Mech., Optg., S&T etc. as per Chapter-III of Accident Manual issued by Western Railway.
- iii. He will keep liaison with the Control & Sr.DOM(G) to ensure early clearance of front and rear portion of the accident involved train.
- iv. He will assist the Officer-in-charge of the site regarding marshalling of ARME and receiving ART at site etc. with the consultation of Official Incharge of ART/ARME.

- v. He will ensure that in case of passenger train accident, clearance of passengers by the officials of Commercial department from the site by the earliest mode of transport.
- vi. He will ensure the clearance of front and rear portion of accident involved trains with the help of Operating officials at site.

9.9.2 ADSOs:

- i. He will reach at site by ARME/ART /fastest mode of transport as per instruction of Sr.DSO.
- ii. He will ensure that the photograph /video graph of the site is taken by Mechanical department.
- iii. He will ensure that the measurement in the standard format is taken at the accident site by Joint Observation & measurement committee.
- iv. He will ensure that proper log diaries are maintained at accident site by Operating official {i.e. TI/AOM(G)} and field telephone manned by S&T official {i.e. SSE(Tele)/ADSTE}

9.9.3 SC (Traffic):

- i. He will ensure that diary and timings of each event at site is being noted by assigned Operating officials.
- ii. He will assist in keeping liaison with Control office and any other duties given by Sr.DSO/ADSO.
- iii. He will ensure the statement of Guards/Operating staff and Passengers are taken by Joint Observation & measurement committee in connection with the accident.
- iv. Any other duty assigned by Sr.DSO/ADSO.

9.9.4 SC (Loco):

- i. He will ensure that the bio-data , statement of LP & ALP are taken by Joint Observation & measurement committee for the accident involved train and will show to Sr.DSO/ADSO.
- ii. He will also ensure holding of speedometer graph of the engine of the accident involved train.
- iii. He will also ensure taking charge of engine repair book by Joint Observation & measurement committee in case of derailment of locomotives.
- iv. He will ensure that breathalyzer test of the LP and ALP is done.
- v. Any other duty assigned by Sr.DSO/ADSO

9.9.5 SC (C&W):

- i. He shall make thorough inspection of the accident involved coaches/ wagons and assist Sr.DSO in finding out the probable cause of the accident.
- ii. He will ensure that the joint measurements of wagons/coaches are taken in proper Performa by Joint Observation & measurement committee.
- iii. He will take down the PRO particulars of the derailed wagon/coaches and will show to Sr.DSO/ADSO.
- iv. He will ensure checking up of Brake Power Certificate and its validity of the accident involved train and also ensure seizing of the same.
- v. Any other duty assigned by Sr.DSO/ADSO.

9.9.6 SC (P.Way):

- i. He will ensure that the joint observation measurements of the track are taken in the standard Performa as per the accident manual.
- ii. He will ensure that proper sketch of the accident site is being prepared and jointly signed.

- iii. He will inspect the site and also go through the track observations and measurements and will assist Sr.DSO/ADSO in ascertaining the probable cause of the accident.
- iv. He will ensure seizing of the gang diaries and gang chart, curve register and other related documents from the concerned PWI.
- v. He will ensure that post statement of the P.Way staff working at the site if any at the time of accident is taken by Joint Observation & measurement committee.
- vi. Any other duty assigned by Sr.DSO/ADSO.

9.9.7 SC (S&T):

- i. He will inspect the accident site particularly, if points and crossings & signal gears are involved and will assist Sr.DSO/ADSO in ascertaining probable cause of the accident.
He will ensure that joint observations of cabin/panel are taken.
- ii. In case of accident in station yard and on points, he will ensure that gauge position of the points and all levers/push button in the Panel/RRI/Cabin rooms are noted by Joint Observation & measurement committee.
- iii. He will ensure that the communication between the site and the Control is arranged at the earliest. He shall also ensure that the site telephone is manned by responsible S&T staff.
- iv. Any other duty assigned by Sr.DSO/ADSO.

9.9.8 SC (MM):

- i. He will ensure that the bio-data, statement of Motoman is taken by Joint Observation & measurement committee for the accident involved train and will show to Sr.DSO/ADSO.
- ii. He will also ensure holding of speedometer graph of the EMU of the accident involved train.
- iii. He will also ensure taking charge of log book by Joint Observation & measurement committee in case of derailment of EMUs.
- iv. He will ensure that breathalyzer test of the Motoman is done.
- v. Any other duty assigned by Sr.DSO/ADSO.

9.9.9 LI/TI at site:

- i. He shall ensure that the joint measurements of the track, wagons/coaches, cabin and panel are taken and recorded.
- ii. He shall ensure that speedometer graph of loco is taken out jointly and seized.
- iii. He shall seize all train passing record of station if warranted.
- iv. He will take statement of the SM on duty of the station, cabin-man and any other operating staff related with the accident.
- v. He will keep liaison with the control and ensure reception of ARME and ART at site and also ensure that all necessary shunting required to be done at site or at station is done safely in the minimum time.
- vi. Any other duty assigned by Sr.DSO/ADSO and Operating Officers at site.

9.10 Operating department: Co-ordination shall be done by Sr. DOM/DOM:

- i. He will supervise and co-ordinate the duties given to other operating officers and supervisors.
- ii. He shall give information about accident to COM, CPTM on telephone
- iii. Timely departure of ARME/ART for the site and its proper running till reaching at site.
- iv. In case of passenger train accident, clearance of passenger from the site by the earliest mode of transport.

- v. Clearance of front and rear portion of accident involved trains.
- vi. Regulation and cancellation of passenger/Mail express trains.
- vii. Providing all the assistance at site in the form of men and materials required by different departments at site by rail.
- viii. During Disaster Sr.DOM(G) will reach at site by first available means and Sr.DOM will be in Disaster Control Room at BCT.
- ix. Sr.DOM(G) will ensure safe attaching & detaching of Wagon/Coach/Loco as per instruction of senior most Officer at disaster site.
- x. AOM(G) at site will keep neat & clean records of events including movements of ART/ARME/TowerWagon and measurement of affected Coach/Wagon/Loco etc. He will maintain proper record which may be produced during any enquiry etc.

9.11 Commercial Department :Co-ordination shall be done by Sr. DCM/DCM:

Sr.DCM shall proceed to the site along with ACM. DCM shall remain in the control office.

9.11.1 Assistance to the passengers:

- i. Drinking water, catering etc.
- ii. Issue of free telegrams
- iii. Issue of complimentary passes.
- iv. Information regarding alternative means of transport to the destination.
- v. Assistance in protection of their luggage, valuables.
- vi. Assistance to ladies, children and the injured.

9.11.2 Parcel, Mail, Goods etc.:

- i. Arrange stacking, protection.
- ii. Preserve documents, cash etc.
- iii. Arrange tarpaulins if necessary.

9.11.3 Ex-gratia payment:

The amount of ex-gratia relief to be paid to the dependents of dead and injured passengers involved in Train Accidents and untoward incidents as defined under Section 123 read with section 124 and 124-A of the Railways Act, 1989 and to the road users who met with an accident due to Railway's prima facie liability at Manned Level Crossing Gate Accident. The revised rates and compiled instructions are as below :

9.11.4 Amount of ex-gratia for train accidents, untoward incidents and manned level crossing gate accidents

S.N.	Type of accident	Amount of ex-gratia for Death	Amount of ex-gratia for Grievous Injury	Amount of ex- gratia for Simple Injury
1	Train Accident (as defined under Section 124 of the Railways Act, 1989)	Rs.5,00,000/- (Rupees five lakh only)	Rs.2,50,000/- (Rupees Two lakh fifty thousand only)	Rs.50,000/- (Rupees fifty thousand only)
2	Untoward Incident (as defined under Section 124- A of the Railways Act, 1989)	Rs.1,50,000/- (Rupees one lakh fifty thousand only)	Rs.50,000/- (Rupees fifty thousand only)	Rs.5,000/- (Rupees Five Thousand only)
3	Accident at Manned Level Crossing (due to Railway's prima facie liability)	Rs.5,00,000/- (Rupees five lakh only)	Rs.2,50,000/- (Rupees Two lakh fifty thousand only)	Rs.50,000/- (Rupees fifty thousand only)

9.11.5 Additional Ex-gratia relief in case of hospitalization of grievously injured passengers beyond 30 days.

SN	In case of train accident	In case of untoward incident
1	Rs. 3000/- per day to be released at the end of every 10 day period or date of discharge, whichever is earlier.	Rs. 1500/- per day to be released at the end of every 10 day period or date of discharge, whichever is earlier upto further six months of hospitalization
		Thereafter, Rs. 750 per day be released at the end of every 10 day period or date of discharge, whichever is earlier upto further five months of hospitalization.

9.11.6 a) Lump sum amount of ex-gratia for hospitalisation of grievously injured passengers upto first 30 days is as mentioned in table at para (1) above.

b) The maximum period for which ex-gratia is payable to the grievously injured passenger will be 12 months.

9.11.7 This ex-gratia relief will be exclusively for passengers who are grievously injured in train accidents or untoward incidents as defined under section 123, read with section 124 /124-A , of the Railways act , 1989.

9.11.8 The period for treatment as indoor patient for more than 30 days would need to be certified by a Railway Doctor for the purpose of further ex-gratia payment upto the period of remaining 11 months. In case where the injured is taking treatment in other than Railway Hospital , the treatment has to be certified by Railway Doctor.

9.11.9 Sr. Divisional Medical Officers shall also keep track of such injured person taking treatment in other than Railway hospitals. Sr.DCM/DCM shall keep co-ordination with Sr.DMO for the purpose and arrange payment of ex-gratia as per the prescribed schedule mentioned in the table in para 2 above at the doorstep of injured person. Every care shall be taken by Sr.DCM/DCM to avoid any inconvenience to injured person in such cases

9.11.10 Mode of payment of ex-gratia/enhanced ex-gratia

9.11.11 Maximum amount of upto Rs.50,000/- to be paid in cash as an immediate relief for taking care of initial expenses.

9.11.12 Remaining amount to be paid by Account Payee cheque / RTGS / NEFT/ any other online payment mode.

9.11.13 Notwithstanding anything contained in para 3.1 and 3.2 above, Railways may disburse the entire amount of ex-gratia / enhanced ex-gratia by Account Payee Cheque/RTGS/NEFT/ any other online payment mode, if deemed appropriate.

9.11.14 Other terms and conditions

9.11.15 No ex-gratia relief would be admissible to road users in case of accident at Unmanned Level Crossing, trespassers, persons electrocuted by OHE (Over Head Equipment) .

9.11.16 Ex-gratia payment in case of train accidents and untoward incident are not to be taken into account at the time of final claim for compensation.

9.11.17 The amount of ex-gratia relief admissible to road users who meet with an accident due to Railway's prima facie liability at Manned Level Crossing Gate Accident, will be counted towards the amount of compensation payable, if action is tenable against the Railways under

the Law of Torts and an award is actually granted by a Court of Law.

9.11.18 Ex-gratia payment should also be made to railway servants killed or injured by a moving train while performing their duty, for example, gangman working on track run over accidentally by a moving train.

9.11.19 Payments should be sanctioned / arranged preferably on the spot by a Senior Scale Officer nominated by the General Manager after making such enquiries as can be reasonably made on the spot after the immediate needs by way of medical attendance etc. to injured persons are attended to.

9.12 Engineering Department: Co-ordination shall be done by Sr. DEN (HQ):
(Concerned Sr.DEN will proceed to site and Sr.DEN(Co.) in Control Office)

- i. All Engineering Officials shall report to the Senior most Officer at site.
- ii. Arrange divers with proper equipment for under water rescue if necessary
- iii. Guarding and preservation of clues till Police or RPF personnel arrive at site and taken charge.
- iv. Arrange for water supply at accident site by drawing from adjoining station if required.
- v. Cutting equipment available with PWI and BRIs and in Workshop are moved to site for supplementing ones available in ART.
- vi. Utilization of bridge gangs for rescue work whenever the need arises.
- vii. Assistance to other department in establishing communication and power supply at site.
- viii. Assisting in transshipment of passengers and their luggage.
- ix. Provision of tents and other temporary shelter at the site for protection against elements of weather.

9.13 Mechanical Department: Co-ordination shall be done by Sr.DME:
(Sr.DME will proceed to site and Sr.CDO/BCT in Control Office)

- i. Sr.DME/AME will ensure the ARME starts to site at the earliest. Supervise HRD operations.
- ii. DCWI will co-ordinate with other department and help to passenger for distributing available water and beverages in ARME.

9.13.1 ART Staff:

- i. Proceed to the site of accident. Assisting evacuating passengers if any trapped under/inside coaches involved in accident.
- ii. Record the details regarding brake power and other aspects of the rolling stock as per prescribed Performa.
- iii. Should have the measurement of the rolling stock taken as per the prescribed procedure/Performa.
- iv. Should check the fitness of the stock, which are supposed to move from the accident site.
- v. Should ensure that loco/coaches. wagons re-railed are in a fit condition to be taken from the accident site.
- vi. Plan for efficient movement of ART, Engine, Tower, wagon etc. Between site and station for quicker restoration.
- vii. Ensure safe and efficient working of cranes, hydraulic re-railing equipment and other rescue devices.

- viii. Ensure that the log/diary regarding restoration at the accident site is maintained properly.
- ix. In-charge of ART will take photographs and make video of the affected site for further records.

9.14 Signal & Telecom. Department Co-ordination shall be done by Sr.DSTE(HQ) & concerned Sr.DSTEs & ADSTEs shall proceed to site. DSTE shall remain in Control Office:

- i. To proceed to site by the quickest means available.
- ii. Ensure portable telephone/emergency telephone set is provided at site.
- iii. Wherever feasible, wireless sets to be installed at accident site for communication with Divisional HQs and if possible with Rly. HQs. Walkie-talkie sets, megaphone hailer to be deployed as necessary.
- iv. DOT telephone with STD facility to be arranged at the temporary enquiry office opened at site and nearest location wherever possible.
- v. Render all assistance as required by the site in charge in attending to the accident victims and stranded passengers.
- vi. Seal block instrument, relay room and note position of levers, knobs, slides, indication etc. as the case may be.
- vii. Arrange for early restoration of signalling and telecom. Equipments as soon as such restoration is permitted.
- viii. Extending communication facilities at the site without wasting any time.

9.15 Electrical-department:Co-ordination shall be done by Sr.DEE(P),Sr.DEE(TRD), Sr.DEE(O), Sr.DEE(Chg.), Sr.DEE(Sub), Sr.DEE(RS) (Concerned Branch Officer will proceed to site & DEE/ADEE in Control Office:

9.15.1 Power:

- i. Adequate lighting arrangements are provided at the site.
- ii. DG sets for augmenting the power supply can be hired if required.
- iii. In case of fire in coaches, any evidence of passenger should be recorded and other clues preserved. If some passenger is willing to give evidence later on, their names and addresses should also be recorded.

9.15.2 OHE:

- i. Arrange for adequate number of brake down staff/tower wagon and proceed to the site of accident by the quickest available means.
- ii. Ensure that OHE is de-energized and slewed as required for ground/crane operations.
- iii. Arrange and supervise restoration of OHE expeditiously. In addition to the above, the Tower Wagon of nearest depot along-with staff will move to site in emergency.

9.15.3 TRO:

- i. Sr.DEE (O) shall proceed to site in case loco or MEMU is involved.
- ii. Supervise restorations.
- iii. Ensure that Speedo graph/engine/MEMU logbooks are seized, sealed and kept in safe custody.
- iv. Note down his observation regarding the electric loco/MEMU and record measurements as per the prescribed Form.
- v. Ensure that measurements of loco/MEMU are taken on the spot. If it is not possible for all types of measurement to be taken on the spot, then these should be taken in the shed.

**9.16 Personnel Department Co-ordination shall be done by Sr. DPO /DPO.
(DPO will proceed to site and Sr.DPO in Control Office):**

Welfare Inspector should be posted round the clock in shift duty to look after the welfare of the injured persons in the hospital.

- i. WLI should ensure that passes are issued to the relatives and escort of injured and visiting them in the hospital and taking them back home.
- ii. Sr.DPO/DPO shall depute welfare inspectors to assist the DMO/Sr.DMO in taking down the name and addresses of the dead and injured and in shifting them to the hospital. Welfare Inspector should also be deputed to the hospitals where the dead bodies or injured has been transferred. Such information should be passed on Sr.DCM by quickest possible means.

9.17 Security Department Co-ordination shall be done by Sr.DSC(Sr.DSC will proceed to site and ASC in Control Office)

- i. Liaison with local Police at site.
- ii. Ensuring security of passenger's belongings.
- iii. Security of parcel, damaged goods and parcel vans.
- iv. To follow any instructions as given by the Officer-in-charge at the accident spot in connection with item 1 to 3 above.

9.18 RPF Control Room:

RPF Control Room on getting the message about an accident shall act upon this information. Duty Officer/Divisional Security Control room will –

- i. Inform the Sr.DSC & receive instructions.
- ii. ASC concerned shall & act as Co-ordinator between Divisional Security control Room & Divisional Control & GRP.
- lii . Inform the post in whose jurisdiction the accident has taken place.
 - iv. Inform the nearest IPF/SI along-with maximum staff to attend the site at once and reach the place of occurrence by the quickest means. The hiring transport can be done if no good vehicle is available.
- v. IPF/HQ, Reserve Company will deploy maximum no. of staff to accompany the ART/ARME proceeding to the accident site.
- vi. The IPF concerned too will rush to the spot with as many men as possible.
- vii. Inform the Civil Police Control Room, GRP Control Room, concerning DM/SP/GRP/Fire brigade/Bomb disposal squad.
- viii. The RPF staff should proceed to the place of occurrence with the following items.
 - a. Flash light torches - At least 4 Nos.
 - b. Nylon ropes - 400 mtrs.
 - c. Walkie-Talkie sets - 4 Nos.
 - d. Tents and Ground sheets –
 - e. First Aid kit,
 - f. Stretchers,
 - g. Dragon lights,
 - h. Loud hailers,
 - i. Cameras,

j. Snuffer dog squad

k. Telephone numbers of the above should be kept in readiness and updated by the Divisional Security Control Room.

9.18.1 ACTION AT THE SCENE OF INCIDENT:

The senior most RPF Officer available at the scene of incident immediately starts the following action.

- i. Segregate the area of incident by establishing temporary barriers by use of nylon ropes or any other makeshift device available at the scene. It should be ensured that the no-lookers and spectators do not enter the affected area to disturb the scene or hamper the rescue operations
- ii. Baggage of passengers should be isolated and protected and consigned goods should be taken care of till they are handed over to claimants or taken over by railway authorities.
- iii. RPF personnel should respond to any call for assistance to rescue victims and transport them to the nearest hospital. A record of casualties sent to hospitals should be maintained.
- iv. Hourly Stirrups will be sent by the Officer at the scene of incident to the Divisional/ Zonal Control Room giving the latest situation.
- v. A temporary RPF Assistance Post (shed or tent) with proper Board should be established at a conspicuous location so that people needing help could approach the RPF. If the operation continues for a longer period, effort should be made to install a temporary telephone connection through the Railway Telecom Department, so that the information is passed on quickly. A Log Book should be opened and minute-to minute progress of action by RPF on the Lines indicated above, recorded.
- vi. The senior most officers available at the scene of incident will also ensure proper documentation about the number of persons injured or dead, giving their identity addressed, if available. In case the friends or relatives of the injured/deceased make any quarries they should be properly guided.

9.18.2 Reinforcement:

Efforts will be made to get the reinforcement from the neighbouring posts/outposts. Reserve lime, Divisional Headquarters or Zonal Reserve. In case any RPSF battalion or company is located in the vicinity, men can be requisitioned from there for dealing with such emergent situations till additional force is available from other sources.

9.19 Duties of Medical Department Staff:

- i. Alert blood donors clubs, Saint John Ambulance Brigade and Local Hospitals about arrival of injured.
- ii. Doctor(s) shall proceed to site by ARME or other faster mode of transport. Taxi can be hired if required.
- iii. The emergency boxes from health unit to be moved to the spot.
- iv. Use any available vehicle.
- v. Check all equipment in MRV
- vi. Get operation theatre ready.
- vii. Attending to injured promptly & Making out a list of injured.
- viii. List out the dead.
- ix. Details should be recorded of the injured –
 - Conscious

- Name
- Sex
- Age
- Identification mark
- Address
- Ticket No.
- Originating station
- Destination

9.20 Duties of Accounts Dept.:Sr. DFM/DFM should man the control office & make following arrangements:

- i. Making available sufficient amount of cash for meeting emergent expense.
- ii. Render all possible assistance as per the requirement of OC in charge at site/ Divisional Control.

9.21 Duties of Material Management Dept.

Sr.DMM to attend control office and co-ordinate with the Officer-in-charge site/HQ and arrange local purchase according to the demands from site.

9.22 Duties of TI/SE(P.WAY)/SE(SIGNAL)/SE(C&W)/LI:

9.22.1 Rushing to accident site with men and material

- i. Before leaving for the site of accident organize maximum number of men to go to the accident site along with their equipment.
- ii. Reach the site of accident by quickest available means.

9.22.2 Rescue and Relief:

- i. Ensure that the obstructed line is protected.
- ii. Direct all staff working under them to assist in rescue and relief work.
- iii. All of them should work as per directions of OIC Site.
- iv. Assess casualties and arrange to render First Aid.
- v. Shift injured to nearest hospital.

9.22.3 Joint measurements and preservation of clues and evidences :

- i. Collect and record all evidences relating to the accident such as:
 - a. Condition of track, with special reference to alignment, gauge, cross levels, super elevation, points of mount and drop and any sign of sabotage etc.
 - b. Condition of Rolling stock with reference to Brake Power and braking gear.
 - c. All marks on sleepers, rails, locomotives and vehicles etc. especially for preservation of clues.
 - d. Position of derailed vehicles.
 - e. Prima facie cause of accident.
- ii. Seize and seal the Train Signal Register, Log book, Private Number Book, Line Admission Book, Speed Recorder Chart Floppy and other relevant records.
- iii. Note down the position of panel switches, indication, block instrument, condition of relay room, status of data logger, etc.

- iv. Condition of switches, ground connections, point locking, occupancy of track circuit, details of damage to out door signal/point gears should be noted down.
- v. Seize and seal the Speed Recording Graph Floppy and all other registers and repair logbook of the locomotive.
- vi. Record details of Brake Power and other aspects of Rolling stock as per Proforma.
- vii. Joint measurements of rolling stock should be taken. Note down observations, measurements of Loco etc. at site. If it is not possible arrange for taking the reading at shed.
- viii. These can also be recorded on a video or digital camera subject to the availability. signed by supervisors of all 5 departments at accident site.
- ix. Details of all readings taken and position of all equipment noted should be jointly
- x. Obtain statement of staff involved in the accident.
- xi. CWS/DCWI shall prepare a sketch showing position of Rolling stock.
- xii. PWI shall prepare a final sketch indicating the position of track, with respect to alignment, point of mount, point of drop, OHE mast, point number etc.
- xiii. Survey the situation, assess assistance required and issue message to Divisional Control Office.
- xiv. Take charge of the situation pertaining to your own department and remain till Divisional officers arrive at the site.

CHAPTER- 10

DISASTER RESPONSE –OVERVIEW

10.1. Golden Hour:

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

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

10.1.1 Render definite medical care to the extent possible preferably by qualified medical practitioners.

10.1.2 Stop bleeding and restore Blood Pressure.

10.1.3 Persons under shock should be relieved of shock immediately.

10.1.4 Transport casualties to the nearest hospital so as to reach within this Golden Hour period. For being effective, any Disaster Management system should aim at recovering as many critical patients as possible and rushing them to hospital within this period.

10.2. Disaster Syndrome:

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

10.2.1 Shock stage: In which victims are stunned, dazed and apathetic.

10.2.2 Suggestible stage: In which victims tend to be passive but open to suggestions and willing to take directions from rescue workers and others.

10.2.3 Recovery stage: In which individuals may be tense and apprehensive and may show generalized anxiety.

10.3. Different phases of Disaster Response:

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

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

10.3.3 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.

10.3.4 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.

10.3.5 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.

10.3.6 The three groups which are active during the above mentioned 3 phases of Disaster Response, may be classified as follows: -

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

10.4. First Aid in Emergency:

10.4.1 Order of priority for dealing with and helping injured passengers should be as follows:

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

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

i. **D-DANGER**

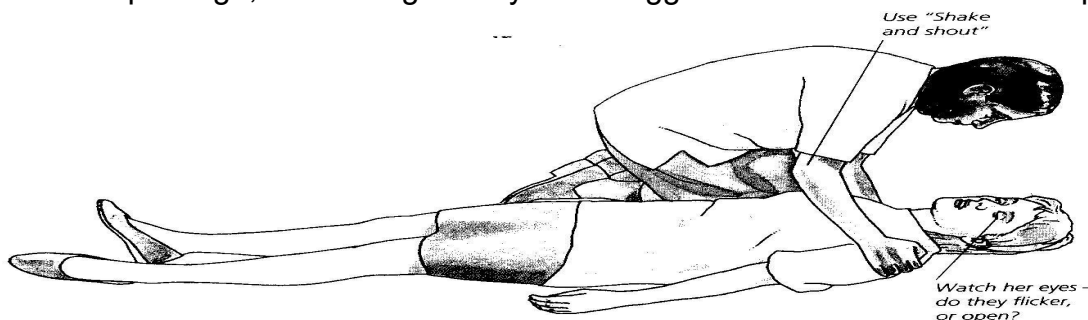
Look for danger; Make sure that no further danger exists either for the patient or for the First Aider.

ii. **R-Response**

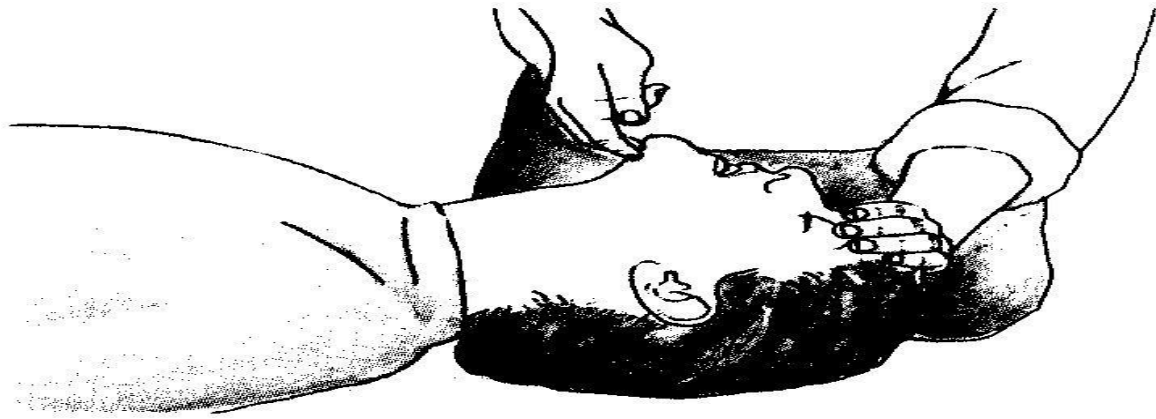
Check for consciousness. Call by his/her name, slap, and pinch and shake gently. If there is no response, then it means that the patient is unconscious.

iii. **A-AIR WAY**

Clear the airway (Trachea) if patient is unconscious, then the airway may be narrowed o blocked making breathing impossible. This occurs due to several reasons. Mass food particles or foreign body in the air passage, or the tongue may have sagged back and blocked the air passage.

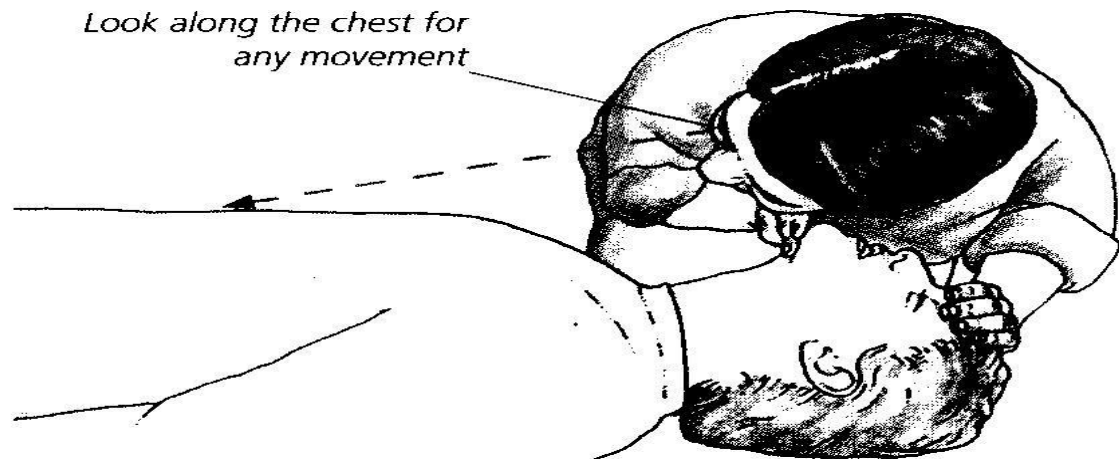


To open the airway lift the chin forward with the fingers of one hand while pressing the forehead backwards with the other hand, now the tongue comes forward and the airway is cleared. To clear the other objects in the mouth press the Jaw, open the mouth put your fingers or a clean cloth in the mouth and clear the things. Now the air passage is clear.



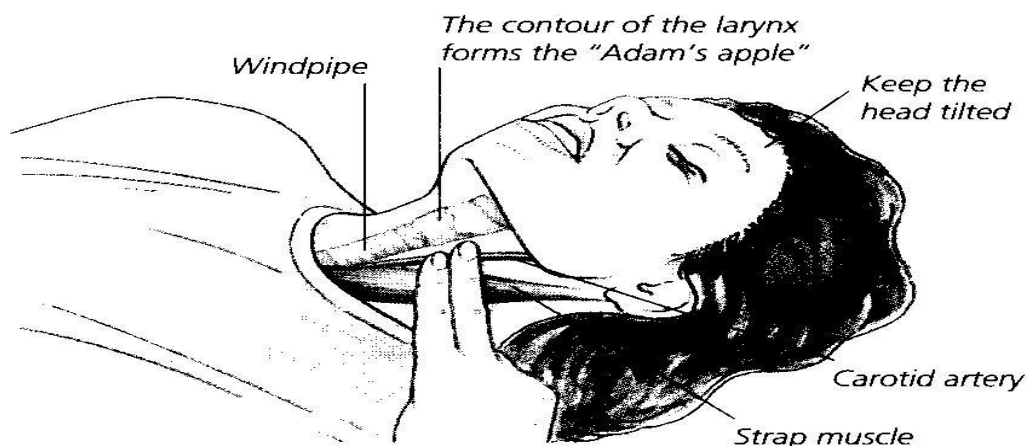
(iv) **B-BREATHING:**

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



(v) **C-CIRCULATION:**

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



(vi) After checking DR ABC, there may be two possibilities.

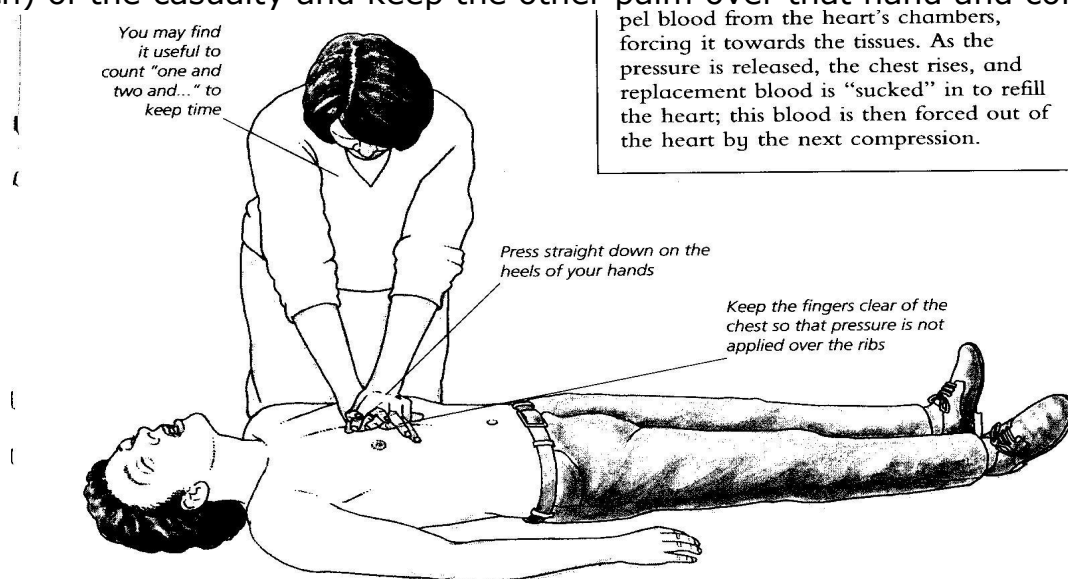
a. If patient is breathing has circulation but is unconsciousness, immediately turn him to Recovery position and transport to hospital.

b. If the patient has failure of breathing and circulation, then immediately start CPR (CARDIO PULMONARY RESUSCITATION) the important life saving technique in First Aid

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



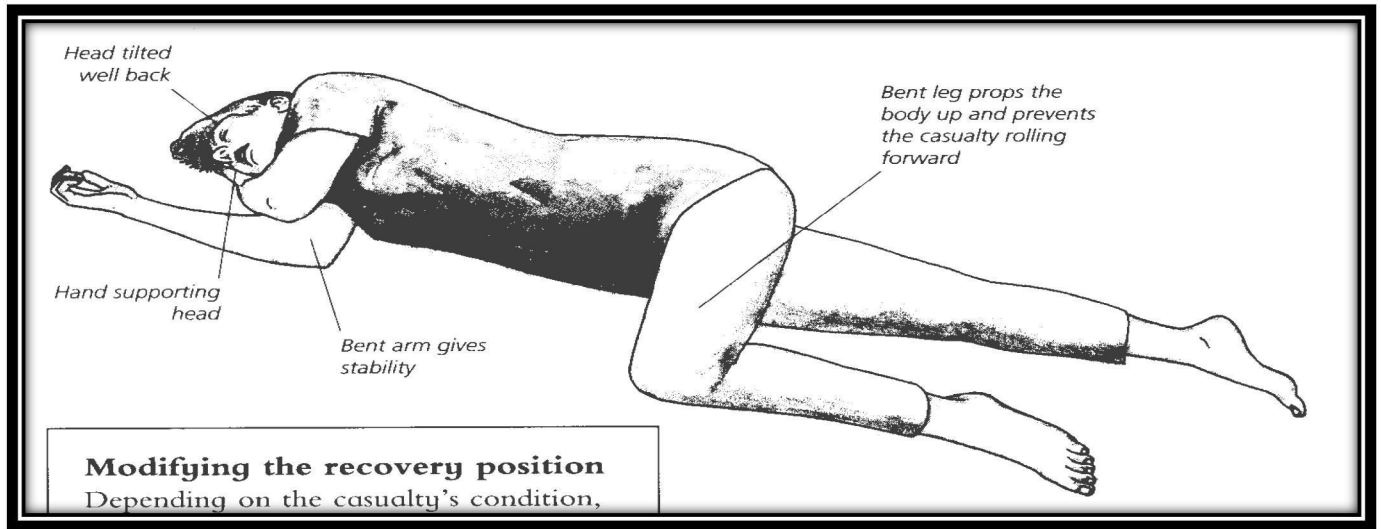
(viii) To revive the heart you have external chest compression. The casualty should be made to lie down on a hard surface. Keep heel of the palm on the chest (pit of stomach) of the casualty and keep the other palm over that hand and compress.



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

(x) Recovery position:

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



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

10.5 First Aid in case of Burnt Injuries:

First aid treatment for a burn injury involves cooling the burn, removing clothing, and covering the burn

• **Cooling the burn**

- Run cool water over the burn for at least 20 minutes.
- If the burn is on the face, use a cool, wet cloth.
- If the burn is from chemicals, like acids or alkalis, wash it off with running water for at least 20 minutes.
- Don't use ice, iced water, or creams.

▪ **Removing clothing**

- Remove any clothing or jewelry near the burn, but don't try to remove anything stuck to the burn.
- Remove shoes quickly and gently before the area swells.
- Covering the burn
- Cover the burn with a clean, damp cloth or sterile bandage.
- You can also use cling film or a clean plastic bag.
- Wrap it loosely to avoid putting pressure on the burn.

▪ **Other treatments**

- Take a nonprescription pain reliever like ibuprofen or acetaminophen.
- Apply lotion with aloe vera or cocoa butter to prevent drying.
- If a blister breaks, gently clean the area with water and apply an antibiotic ointment.

▪ **When to call for help**

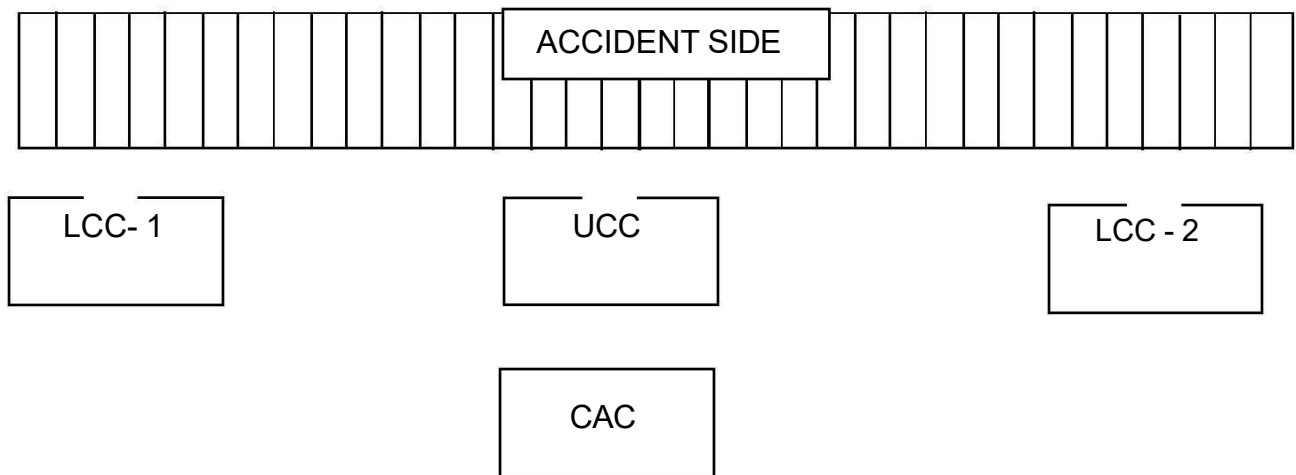
- Call emergency services if the burn is serious, or if it's a major burn.
- Seek medical advice if you're not sure, or if a child has been burned.

CHAPTER- 11

Site Management Plan - I

Two aspects of Disaster Management work at an accident site:

- 11.1.1 First Aspect pertains to (Rescue, relief and restoration) operation which is carried out by one set of functionaries.
- 11.1.2 Second Aspect pertains (to rehabilitation) of accident involved passengers, taking care of dead bodies, dealing with their relatives etc. for which a different set of functionaries are required.
- 11.1.3 For managing these 2 distinct aspects of Disaster Management work that are required to be discharged by railways, two separate establishments should be set up at an accident site.
- 11.1.4 The outline schematic plan of (UCC / CAC /LCCs) at accident site is as below:



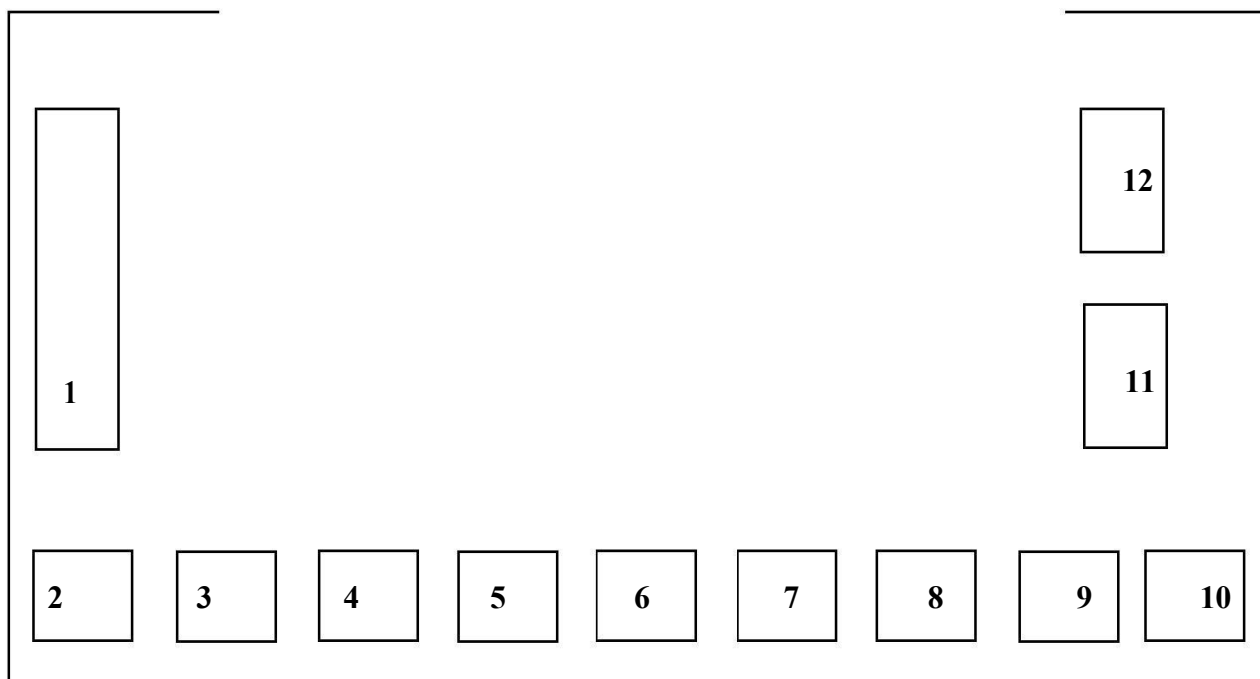
- UCC : Unified Command Centre
 CAC : Combined Assistance Centre
 LCC-1 : Local Command Centre-1
 LCC-2 : Local Command Centre-2

11.2 Unified Command Centre (UCC):

- 11.2.1 Unified Command Centre (UCC) should be set up at the accident site.
- 11.2.2 This will be some kind of a control office to be located near the centre of the accident site.
- 11.2.3 This is basically meant for catering to operational needs of railway in rescue, relief and restoration work.
- 11.2.4 UCC is to be manned by staff of relevant departments such as :
- a) Medical, d) Safety, g) Mechanical,
 - b) Commercial, e) Security, h) Electrical,
 - c) Operating, f) Public Relations, i) S&T,
 - j) Civil

- 11.2.5 UCC will be provided with all facilities similar to a Control office.
- 11.2.6 Adequate lighting with generator backup should be provided in the UCC.
- 11.2.7 Adequate number of telephonic links to Divisional Emergency Cell and HQ Emergency (a) Unified Command Centre (UCC) should be set up at the accident site.
- 11.2.8 Cell should be provided. Preferably each department in the UCC should be given an independent telephone including satellite telephone.
- 11.2.9 Satellite telephone should be installed in the UCC.
- 11.2.10 S & T department should provide FAX, Loudspeakers, P.A. System with conference facility for press briefing Mechanical Department should arrange Photocopier and PCs in consultation with Sr. EDPM.
- 11.2.11 PC / Laptop should be connected to internet (if feasible) for E-Mailing of detail update to all concerned, including Divisional Emergency Cell, HQ Emergency Cell and Helpline Enquiry Booths.
- 11.2.12 A big banner displaying 'UNIFIED COMMAND CENTRE' should be put up at a prominent place at the entry to the shamiana, with sufficient signage's indicating its direction or approach road.
- 11.2.13 UCC at the site will be manned by Sr. Supervisors on round the clock basis in 12 hrs. shift duty.
- 11.2.14 Officers will not be permanently stationed in UCC. They will move about the entire accident site supervising and monitoring working of their department at different activity centres. However, they will keep coming to the UCC off and on and will kept in touch with their departmental functionaries in UCC.
- 11.2.15 Various functionaries in the UCC will monitor and co-ordinate the working of their departments, and assistance required by them, if any.
- 11.2.16 Each functionary at the UCC will maintain a logbook. Flow of information both incoming and outgoing would be recorded along with the time and names of officers / staff who were given the message.
- 11.2.17 UCC will basically supervise the working of 2 LCCs and coordinate with Divisional and HQ Emergency Cells.
- 11.2.18 Functionaries of different departments in LCCs should provide updated information regarding progress of work to their counterparts in UCC.
- 11.2.19 This updated information should be provided once every 3 hours as per the following timings:
 - 1 Hour
 - 4 Hours
 - 7 Hours
 - 10 Hours
 - 13 Hours
 - 16 Hours
 - 19 Hours
 - 22 Hours

11.3 DETAILED SCHEMATIC PLAN OF UNIFIED COMMAND CENTRE



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

11.4 Local Command Centers (LCCs):

- 11.4.1 Depending on the spread of the accident site, Local Command Centres (LCC) on the same pattern as the UCC should be set up.
- 11.4.2 If the site is spread out over 300 - 400 mts. 2 LCCs should be set up.
- 11.4.3 Detail schematic plan of LCCs would be similar to that of UCCs.
- 11.4.4 Representatives of same departments as in UCC should be present in LCCs also. However, they should be either one or at most 2 men per department.
- 11.4.5 LCCs will serve as co-ordination centre for various teams that are working spread out over different geographical locations.
- 11.4.6 Each LCC will oversee the working of Disaster Management teams at each end of the accident site.
- 11.4.7 Jurisdiction of each LCC will extend to all men and materials belonging to 2 ARMEs, Break Down special and 1 ART at that end of the accident site.
- 11.4.8 One officer of Mechanical department will be overall incharge of each LCC.
- 11.4.9 LCCs should be provided with loudspeakers for making announcements.
- 11.4.10 LCCs should be provided with direct telephone links to UCC.

11.4.11 However, LCCs should NOT be provided with telephone links to either Divisional Emergency Cell or Headquarter's emergency Cell. This will ensure that there is minimum telephonic disturbance from outside to teams, which are actually working at the accident site. It will also ensure that outflow of information from accident site goes out from UCC only.

11.4.12 Members of different teams of each department working at the accident site in rescue, relief and restoration work should provide updated information regarding progress of work to their respective functionaries at the LCC.

11.4.13 This updated information should be provided once every 3 hours.

11.5 Combined Assistance Centre:[Also, Combined Assistance Centre/Passenger Assistance Centre]

11.5.1 Need for setting up of Combined assistance centre:

- i. Relatives of passengers who arrive at an accident site are already traumatized by the tragedy.
- ii. They arrive at an unknown location with no place to stay, no friend or acquaintances and not knowing whom to turn to.
- iii. For taking care of relatives of passengers, providing them with succor in their hour of agony and for guiding them sympathetically.
- iv. The problem is made even more challenging since many relatives and next of kin come from far-flung areas in some other states.
- v. Being semi-literate and from different parts of the country, some of them are not even familiar with the local language. For them, even communicating becomes a problem.
- vi. In addition to above, complex legal formalities & multiplicity of paper work is required to be completed before dead bodies are handed over to their next of kin.
- vii. For taking care of relatives of passengers, providing them with succor in their hour of agony and for guiding them sympathetically, some kind of an assistance center is required.
- viii. For this, a banner displaying "COMBINED ASSISTANCE CENTRE/PASSENGER ASSISTANCE CENTRE" should be displayed prominently.

11.5.2 **Formalities required to be completed by relatives of passengers:**

A. Sequence of formalities that are required to be completed by relatives of injured passengers include:

- i. Locating the name of the passenger on reservation charts, in case passenger was travelling in reserved accommodation.
- ii. Going through the list of injured and dead passengers to find out whether the name appears.
- iii. In case the name is not available in the list, then taking a round of different hospitals to find out whether their relative has been admitted in one of them in an unconscious state.
- iv. Hospitals are generally at separate locations, sometimes even in different towns; and commuting becomes a problem.
- v. In case the passenger can be located in one of the hospitals, they have to find out the severity of injuries, likely period of hospitalization etc.

- vi. Collect the ex-gratia paid by railways.
- vii. Try and locate missing luggage of the injured passenger. For this Passengers have to take a round of the building where all unclaimed luggage have been kept.
- viii. Next, they have to arrange for a place for them to stay.
- ix. Arrange for medicines / diet etc. and payment of hospital bills, if required.
- x. Thereafter, they have to keep in touch with the hospital and get their relative released.

B. Additional formalities that are required to be completed by next of kin of dead passengers:

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

11.5.3 Problems faced by the relatives:

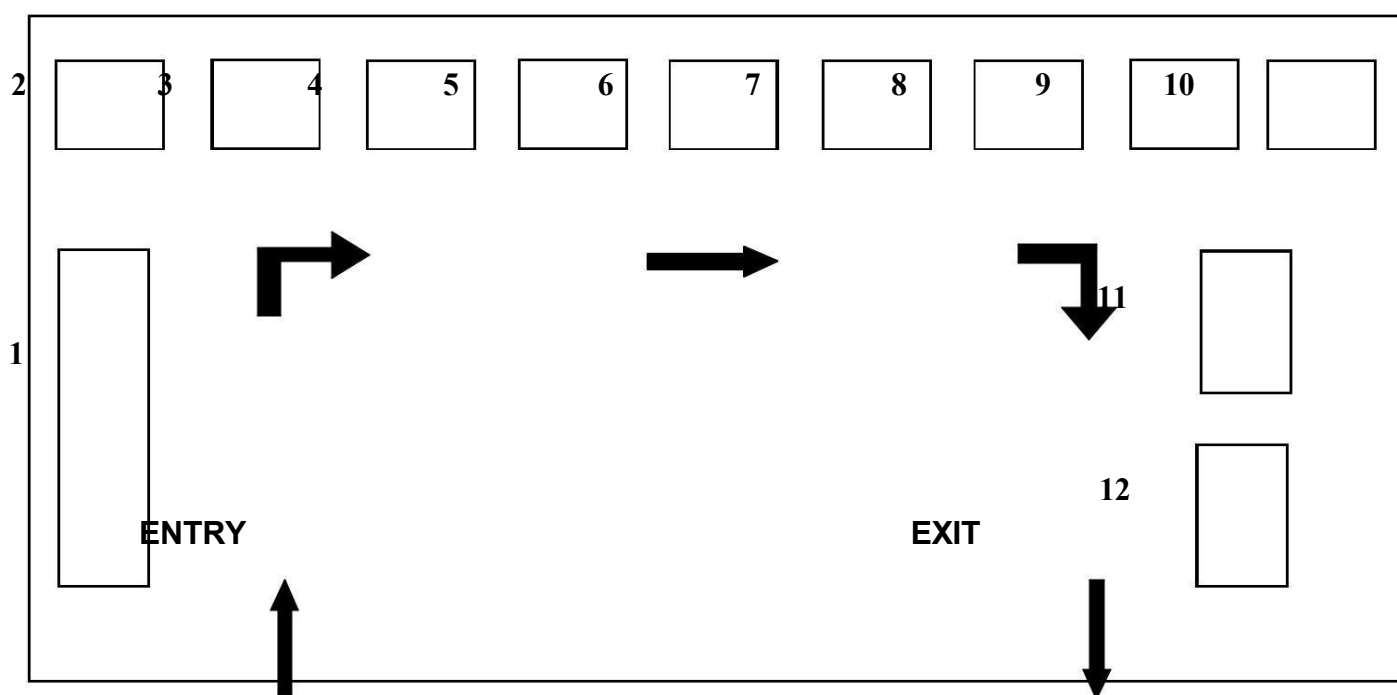
- i. Each of these formalities given above are under the jurisdiction of a different agency, either railway or police or civil administration or local administration.
- ii. In such a situation, the level of co-ordination between these various agencies leaves much to be desired.
- iii. Sometimes it even takes up to 48 hours before these entire documentary formalities can be completed.
- iv. In most cases, relatives have to run from pillar to post for completing all these formalities and the bitter experience leaves them permanently antagonised towards railways.

- v. For this purpose, a single window clearance system should be available for relatives and next of kin.

11.6 COMBINED ASSISTANCE CENTRE (CAC):

11.6.1 The UCC should have a Combined Assistance Centre (CAC) located towards the rear side, away from the track for rendering help to passengers and their relatives.

11.6.2 DETAIL SCHEMATIC PLAN OF COMBINED ASSISTANCE CENTRE:



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

- 11.6.3** This is meant for catering to requirements of passengers and their relatives / next of kin, and for providing a single window clearance for all types of formalities.
- 11.5.4 Combined Assistance Centre (CAC) should be separate from the UCC so that it does not interfere with normal rescue and relief work.
- 11.6.5** CAC will be manned by staff of relevant departments such as Operating, Medical, Commercial, Security, Personnel.
- 11.6.6** There should be only one such CAC, and all railway resources should be pooled into it.
- 11.6.7** LCCs should not have any small CAC located in the rear. It is likely to create logistic problems.
- 11.6.8** A big banner displaying 'COMBINED ASSISTANCE CENTRE' should be put up at a prominent place at the entry to the shamiana.
- 11.6.9** Similarly there should be sufficient number of signage indicating the way to CAC on Post mortem formalities approach roads etc.
- 11.6.10** Railway staff fluent in the language of relatives should be posted for doing work of interpreters.
- 11.6.11** should be waived off so that one reduces number of formalities.
- 11.6.12** Different counters should be provided in sequence for each of these formalities, so that the entire exercise can be completed in less than an hour.
- 11.6.13** Functionary concerned from the local Municipality who issues Official Death Certificates should be made to come and sit in the CAC so that these certificates can be issued immediately without any delay.
- 11.6.14** CAC should have different counters for various purposes in following sequence
- i. Reservation chart, for locating the name.
 - ii. List of dead and injured along with name of hospital. The name of passenger involved should be checked up from the list of dead or injured, if available, and their current status informed.
 - iii. Counter for providing commercial supervisor or WLI as escort along with vehicle(s), for accompanying the relative and going to hospitals or mortuary.
 - iv. Railway doctor for issue of Medical Death Certificate.
 - v. Govt. doctor for issue of Post mortem Certificate, in case the same is necessary.
 - vi. Municipality official for issue of Official Death Certificate.
 - vii. Local police for issue of authority for handing over of dead body.
 - viii. Claims counter - Payment of ex-gratia and issue of Claims Compensation form.
 - ix. Counter for helping performing of last rites in case relatives decide to cremate the body there itself.
 - x. Pass counter for issue of return journey pass.
 - xi. Return journey facilitation counter for making arrangements for return journey.

11.7 First Aid Posts:

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

11.8 Setting up of UCC, LCC AND CAC:

- A. One SSE (Works) shall be exclusively responsible for setting up of these facilities. He shall undertake the following:
 - i. Move along with sufficient staff for setting up of these facilities.
 - ii. Immediately start setting up of the tent accommodation after taking out tents and shamianas provided in ARTs.
 - iii. In addition, he should also requisition agencies, which provide **tentage** accommodation on contract.
- B. Bridge Line staff will assist in setting up of tentage and above-mentioned facilities. Dy. CE (Construction / Bridge) will also move to the site and in case, bridge is not involved, he will take full charge of **tentage** arrangements.
- C. Bridge Unit will take with them sufficient Manila ropes, wire ropes, survey instruments, binoculars, helmets, life jackets, ladders and other equipment. Nylon ropes should be sufficient in length to ensure barricading at site and camping areas.
- D. Sufficient facilities for erecting temporary stage / scaffolding etc. should also be organized, if required at site
- E. Few temporary toilets should be provided at one location in addition to number of urinals at 3 or 4 places.
- F. Water tankers will be ordered for supplying water at site and arrangements shall also be made for drinking water.
- G. Temporary kitchen in tents / shamianas is to be set up so that catering unit or IRCTC can provide cooked food to staff working at accident site.
- H. Adequate no of folding chairs (around 100) should also be arranged.
- I. Bridge Line staff will have list of divers who in case of emergency can be hired for rescue or restoration operations wherever site is surrounded by deep water.
- J. Signage for both UCC and CAC should be provided at prominent locations.

11.9 Collection and dissemination of information - Channel of communication:

The following would be the responsibility and channel both for collection as also dissemination of information. Before each shift goes off duty, details of work done should be updated in the LCC. The LCC should in turn update the UCC regarding the latest progress. This updated information would be conveyed to Divisional Emergency Cell every 3 hours.

11.10 Number of dead and injured - Medical Department:

- i. Medical department at site should confirm the number of dead.
- ii. Doctors in charge of various teams working on different coaches should give 3 hourly report to Medical counter in LCC who in turn will inform UCC.
- iii. Number of injured passengers.
- iv. Type of injuries, whether grievous or trivial.
- v. Names of injured, and names of various hospitals where injured have been sent.

11.11 Identification of dead bodies - Commercial Department:

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

11.12 Number of coaches dealt with - Mechanical Department:

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

CHAPTER- 12

Site Management Plan - II

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

12.2 Members of the Disaster Management Team:

Disaster Management Team normally comprises of members of following departments

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

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

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

12.4 Rescue, Relief and Restoration Operation:

Disaster Management Team on arrival by ARMEs and ARTs shall undertake following actions:

- i. Crowd Control and Law and Order.
- ii. Rescue operation.
- iii. Relief operation.
- iv. Video coverage of accident site.
- v. Installation of Communication Network.
- vi. Clearance from State police for restoration where required.
- vii. Preservation of Clues and Evidence.
- viii. Media Management at site.

- ix. Salvage operation.
- x. Restoration operation.

12.5 Photography:

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

A. Such photographs should clearly indicate:

i. Severity of the accident.

ii. Illustrate the damage to P.Way, Rolling Stock, Signal, OHE and other structures and equipment.

B. Separate set of photographs to be taken to preserve clues and evidence of sabotage if suspected.

C. Victims and unidentified bodies should also be extensively photographed.

12.6 GENERAL:

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

12.6.1 OFFICER IN CHARGE (OIC) at site:

A. Ensure setting up of UCC, CAC and LCCs at the earliest.

B. Collect information from OIC Site of Instant Action Team.

C. Take stock of the situation and plan for efficient rescue operation.

D. Estimate quantum of assistance required for each department from:

i. Within the division,

ii. Adjoining divisions of Mumbai division,

iii. Adjoining zones,

iv. Non-railway agencies.

E. Channelizes local resources to supplement available railway resources.

F. Ensure that duties of various functionaries of different departments as laid down in Divisional

Disaster Management Plan are carried out.

G. Ensure co-ordination among all departments for efficient rescue, relief and restoration operation.

H. Ensure information to Superintendent of Police and District Magistrate.

I. In case of sabotage, direct RPF to obtain quick clearance from State Police.

J. In case of serious explosions or fire, clearance from Controller of Explosions is to be obtained.

K. Give prima facie cause of the accident along with forecast of expected date and time of restoration.

L. Ensure timely information on the progress of rescue, relief, and restoration work every 3 hours with following details:

- i. Number of coaches searched.
- ii. Number of injured passengers recovered.
- iii. Nature of injuries to passengers.
- iv. Number of bodies recovered.
- v. Number of bodies identified.
- vi. Number of coaches dealt with.
- vii. Supplementary assistance required, if any.

M. Forecast for completion of each activity mentioned below should also be firmed up. These target dates and times should be communicated to all officers and supervisors at accident site:

- i. Re-railment
- ii. Track fitness
- iii. OHE fitness.
- iv. Points and inter-locking
- v. Clearance of section.
- vi. Movement of first train.

12.6.2 Duties of Divisional Railway Manager:

- A. Ensure that functionaries of different branches at the accident site carry out duties assigned to them as per Divisional Disaster Management Plan.
- B. Co-ordinate with Divisional Emergency Cell regarding assistance required.
- C. Co-ordinate with Civil Authorities especially with regard to:
 - i. Requisition of buses from State transport authorities, with Drivers for round the clock duty.
 - ii. "Waving off" of Post Mortem formalities.
 - iii. Arrange positioning of Municipal Official in the CAC for issuing of Official Death Certificate.
- D. Ensure that proper assistance is rendered by each department.
- E. Ensure that in addition to one vehicle available in Control Office round the clock, sufficient numbers of vehicles are available along with particulars of the Drivers.
- F. Immediately decide which officer should go by road/ART/ARME.
- G. Nominate the officer to man Control Office.
- H. Depute ADRM as in charge in Control Office if proceeding to the site.
- I. Arrange to advise the Home Secretary/Chief Secretary or other Officers of the state in case of sabotage for prompt attendance of the S.P.

J. Function as the senior most officer and as "Accident Manager".

K. Arrange a preliminary enquiry by Divisional Officers, in cases where an enquiry by the CRS/SAG Officers is to be held but immediate investigation of certain matters is necessary.

L. Appoint two officers as reporters of serious accidents.

M. Arrange for taking joint observation/reading by supervisors.

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

i. At the accident site, departmental officers available from division shall be formed into two teams for round the clock working in 2 shifts, preferably 8 hrs. to 20 hrs. and from 20 hrs. to 8 hrs.

ii. Branch Officers shall be available on duty during the daytime.

iii. Branch Officers shall take on the spot decision regarding composition of the team for night shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.

iv. Similarly, supervisors available from division shall also be put in two teams.

12.6.4 Duties of Operating Department:Immediately after getting the information.

i. All sectional TIs and Supervisory SSs should be directed to reach the accident site by first available means.

ii. Similarly additional RG / LR staff from the section should be sent to 3 stations on either side so that SMs can be free for going to accident site.

iii. Since considerable amount of shunting is required to be performed at adjoining stations, 2 traffic supervisors in 2 shifts should be posted at adjoining stations on each side.

iv. Ensure that special trains (like ARME, ART) are sent into the accident affected block section according to the sequence .

v. Ensure proper marshaling of crane while proceeding to the accident spot in the block section.

vi. Ensure that Engineering vans of the ART are placed nearest to the accident site for this purpose; Engineering van / wagon should be placed closest to the site of accident by sending it in pushing condition.

vii. Ensure prompt clearance of stranded passengers at the site in coordination with the Divisional Emergency Cell.

viii. Regarding running of special trains, keep in touch with Divisional Emergency Cell and give requirement from site.

12.6.5 Duties of Safety Department:

i. Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed till police clearance is received.

ii. Ensure that video/still photographs by digital cameras are taken as required.

iii. Ensure that joint measurements, observations are recorded in the prescribed proforma before restoration work begins.

- iv. Ensure that unaffected rolling stock is moved away from the site and thereafter stabled at convenient location for further examination during accident inquiry.
- v. Ensure that evidence of train staff, station staff and public is recorded on the spot.
- vi. Addresses of passengers willing to give statements later should also be obtained.
- vii. Ensure that special trains (like ARME, ART) are sent into the accident affected block section.

12.6.6 Duties of Medical Department: A.Main functions:

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

- i. Taking out injured passengers from accident involved coaches.
- ii. Attending to injured passengers and giving them First Aid.
- iii. Preparing list of injured passengers.
- iv. Classification of their injuries.
- v. Transporting them to hospitals and getting them admitted.
- vi. Taking an initial round of hospitals and assessment of situation.
- vii. Post admittance hospital care of the injured.
- viii. Dealing with dead bodies.
- ix. Preservation of dead bodies.

B. General:

- i. Ensure collecting blood and urine samples of train crew in case the same is necessary.
- ii. Organize as many road ambulances as possible at the accident site.
- iii. Data Bank of Divisional Disaster Management Plans have names, telephones numbers and other details of hospitals near the accident site. They should be contacted on phone for sending road ambulances along with team of doctors.
- iv. Set up Medical Counter in UCC and CAC for passenger assistance.
- v. Set up First Aid Posts in LCCs.

C. Site Management:

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

- i. Different teams and groups will be formed for discharging various duties of the Medical department. Each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.
- ii. One group of doctors will take a round of various hospitals where injured passengers have already been admitted.
- iii. One group consisting of 4-5 teams of doctors and para-medics will take out injured passengers and dead bodies from accident involved coaches.

- iv. One team will attend to injured passengers and give them First Aid and other medical treatment.
- v. One team will prepare list of injured passengers, note down details of their injuries and clarify them.
- vi. One team would be in-charge of transporting injured passengers to hospitals and getting them admitted.
- vii. One team would be in-charge of post admittance hospital care of the injured.
- viii. One team will deal with dead bodies after these have been extracted from coaches. They will prepare a list and arrange for their preservation.
- ix. In case sufficient doctors are available then more groups should be formed for rescue operations.

D. Taking an initial round of hospitals:

- i. Separate doctors will be deputed to visit each hospital where injured passengers have already been shifted.
- ii. One commercial officer will also accompany doctors and make a general assessment.
- iii. At the hospital, they should collect information about dead/ injured persons, their name, age, sex, address, telephone no., name and telephone no. of relatives / friends, nature of the injury, etc.
- iv. This information should be immediately communicated to CMS/ MS at accident site by using local PCO / Cell phone, etc.
- v. Prepare a list of persons dead / injured already in hospitals in three copies by using carbon paper.
- vi. The list thus prepared is to be signed by railway doctor on duty in the hospital. One copy is to be handed over to the Commercial Department.
- vii. 2nd copy to be kept with the doctor in charge as office copy and the 3rd copy to be given to paramedical staff to get multiple photocopies for further distribution.
- viii. One copy should also be sent to CAC for being fed into the PC provided in the CAC.
- ix. The initial list prepared should be updated at regular intervals, as and when any change occurs.

E. Taking out injured passengers:

- i. Maximum number of doctors should be deputed for this activity.
- ii. This group should consist of at least 4-5 teams. If numbers permit, more such teams should be formed.
- iii. Teams involved in rescue operation should ensure rapid access to all injured passengers.
- iv. They should take assistance of Mechanical / Engineering / RPF staff to extricate injured passengers.
- v. Each team will join up with teams of Mechanical staff who would also be involved in Extricating dead and injured from coaches.
- vi. Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another.
- vii. Coaches should be thoroughly searched including lavatory and vestibule portions before abandoning further search and moving on to the next coach.

F. Attending to injured passengers:

- i. One team will provide medical treatment to injured passengers immediately after their evacuation from coaches.
- ii. Ensure stabilization of condition of injured passengers already taken out from coaches, before they are dispatched to hospitals by road.
- iii. In case of patients in critical condition, where stabilization of condition at site is not possible, they should be moved immediately by road ambulance or shifted to ARME.

G. Preparing list of Passengers:

- i. Collect list of injured passengers prepared by TS / TTEs/Train Conductors and assess the situation.
- ii. Separate lists to be prepared coach wise.
- iii. The list should contain following details:
 - a. If found Conscious: Name, sex, age, identification marks, address, ticket number, originating and destination station.
 - b. If found Unconscious: Approximate age, sex, identification marks, ticket number and other particulars if relatives and friends are available.
- iv. Once the preliminary list of injured passengers has been prepared, the list should be signed by the CMS / MS in-charge and a copy handed over to commercial department.
- v. The list of injured passengers will thereafter be updated periodically, as rescue and relief work continues.

H. Classification of Injuries:

- a. Injuries are classified as under:
 - i. 'Grievous' injuries as defined below.
 - ii. 'Simple', but excluding 'trivial' injuries such as abrasions or bruises.
- b. Following are considered to be grievous injuries (as per section 320 of the Indian Penal Code):
 - i. Emasculation.
 - ii. Permanent privation of sight of either eye.
 - iii. Permanent privation of hearing of either ear.
 - iv. Privation of any member or joint.
 - v. Destruction or permanent impairment of powers of any members or joint.
 - vi. Permanent disfigurement of head or face.
 - vii. Fracture or dislocation of a bone or tooth.
 - viii. Any hurt which endangers life, or which cause the sufferer to be, during the space of twenty days, in severe bodily pain or unable to follow his ordinary pursuits.

- c. Injuries other than those defined above are considered to be simple injuries.
- d. Apart from injuries defined above, there may be cases where a passenger or trespasser receives only petty abrasions or bruises. These are of trivial nature and technically speaking should not be taken as injuries.

H. As a thumb rule, any injury requiring hospitalization of more than 48 hrs. is grievous, hospitalization of less than 48 hrs. is simple, and any injury not requiring hospitalization at all is trivial.

f. Classify injured passengers into separate categories as grievous or simple.

g. Inform Commercial department for arranging ex-gratia payment.

I. Transporting injured passengers to hospitals:

i. One team will be asked to arrange to transport injured passengers to nearby hospitals.

ii. Ensure expeditious transportation of injured either to ARMEs or to nearby hospitals.

iii. Critically injured passengers should be transported by means of road ambulances and other by means of ordinary road vehicles.

iv. Commercial staff should also be associated with transfer of injured passengers to hospitals.

v. Before doctors and supervisors leave the accident site for hospital duty, they should note down the DOT and mobile Telephone no. of the accident site, CMS, MS and other doctors at the site for quick communication.

vi. Doctors going to different hospitals should have separate vehicles.

vii. In case sufficient number of railway vehicles are not available, (Commercial department) they should hire taxis for their movement by withdrawing from station earnings.

J. Post admittance hospital care:

i. One railway doctor, one commercial supervisor and one welfare inspector should be deputed round the clock at each hospital.

ii. Normally one doctor should look after one hospital, along with a commercial supervisor and WLI.

I. iii. If large no. of hospitals are involved, 2/3 hospitals may be given to one doctor. In that case, the doctor, in consultation with CMS/ MS, should station himself at the hospital where maximum no. of patients are admitted.

II. Make an assessment about capabilities of the hospital to handle injured persons especially with reference to types of injuries they have suffered. Decide whether the patient needs to be shifted to other hospital with better facilities and then arrange to shift the patient.

III. In case any injured passenger succumbs to his injuries in the hospital, then the doctor in charge of that hospital should update this fact to the medical counter at CAC.

K. Dealing with dead bodies:

- i. Problem faced by rescue teams is regarding dealing of dead bodies.
- ii. In case of a major disaster, the usual complement of medical staff in any ARME is grossly inadequate for undertaking work of this magnitude.
- iii. Adequate number of Safaiwalas and other health workers who have come to the accident site should be mobilized for this purpose.
- iv. Often rescue and relief operations continue for more than 48 hours.
- v. Dismembered bodies begin emitting foul odour after two days. Carrying out this task under such circumstances becomes a real problem.
- vi. Target should be to extricate all dead bodies within 24 hrs.
- vii. Dead bodies should be dealt with coach wise, otherwise bodies taken out from different coaches get mixed up.
 - viii. Bodies taken out from coaches should be stacked at quite some distance from the track in front of respective coaches, in separate lots, coach wise. While this may slow down the work initially, in the long run it is more systematic since bodies don't get mixed up.
- ix. Shift dead bodies from coaches to a nominated place at the accident site with the help of paramedical staff, SJAB, Scouts, Civil Defence personnel, other railway staff and non-railway volunteers available at site.
- x. Put dead bodies in body bags.
 - Date_____
 - Dead body Serial No: _____
 - Name _____
 - Age_____ Sex._____
 - Coach No: _____
- xii. In case of unidentified dead bodies, against the item 'name', it should be written as unidentified-1/unidentified-2, etc. Approximate age should be estimated from the appearance, such as between 35-45 years.
- xiii. 5 photographs preferably by digital camera should be taken of each dead body. Two should be close up of face from in front and sideways, third should be of full length of the body.
- xiv. If possible each body should also be video photographed.
- xv. After photographs have been taken, each body should be placed inside a plastic bag with zip having proper labeling system where some information is also to be provided.
- xvi. After this, bodies will be handed over to GRP or local police for safe custody.
- xvii. Take necessary steps to handle unhygienic condition that may arise due to decomposed / mutilated bodies.

L. Preservation of dead bodies:

- i. Numbering and photography of bodies should be done even when relatives are on hand to claim the body.
- ii. Arrangements have to be made for a more permanent location for them till such time as the next of kin arrive to claim these bodies.
- iii. In all such accidents passengers are invariably separated from their belongings. As such in many cases there are no tickets or other identification papers on their persons.
- iv. This problem is further compounded in unreserved coaches where no reservation charts are available.
- v. Identification problems come up in case of mutilated bodies also. In such cases, photographs are better means of identification.
- vi. Arrange for hiring of a couple of big halls, for keeping bodies.
- vii. Rooms should preferably be at a single location so that relatives do not have to go around from mortuary to mortuary.
- viii. A large building having number of rooms would be ideal for storing them. Best option would be to take over a school building temporarily.
- ix. Arrange to move dead bodies to nominated buildings being used as temporary mortuaries. Bodies likely to be hold for more days should be embalmed.
- x. Bodies should be neatly lined up with their numbers prominently displayed, and kept in different rooms, coach-wise.
- xi. Notice Board outside the building should display the room nos where bodies extricated from a particular coach have been kept.
- xii. These details should also be posted on a notice board outside each room.
- xiii. This will prevent unnecessary handling of bodies which in any case would be in an advanced state of decomposition.
- xiv. For dead bodies whose relatives are not readily available and delay is expected, arrange for their preservation by dry ice, etc.
- xv. Procure following items from local market for dealing with dead bodies:
 - Shrouds
 - Polythen bags
 - Coffins
 - Dry ice
- xvi. 4 Commercial Supervisors with staff should be put on round the clock duty in the building housing the temporary mortuary for guiding relatives as and when they come.

12.6.7 Duties of Commercial Department:

A. Main functions:

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

- i. Withdrawal of cash from station earnings.
- ii. Hiring of road vehicles.
- iii. Providing beverages and catering to injured and uninjured passengers.
- iv. Initial round of hospitals and assessment of situation.
- v. Preparing list of injured passengers.

- vi. Transporting injured passengers to hospitals and getting them admitted.
- vii. Payment of ex-gratia to injured and next of kin of dead.
- viii. Dealing with refund and claims compensation formalities.
- ix. Taking charge of luggage and consignments.
- x. Post-admittance hospital care of the injured.
- xi. Taking care of relatives.
- xii. Payment to staff if required.

B. General:

- i. Before Sr. DCM proceeds to accident site he should arrange withdrawal of sufficient cash from station earnings.
- ii. At the accident site, handpicked commercial supervisors should be deputed for manning commercial counters in UCC and CAC.
- iii. Each commercial counter in CAC is to be manned by one group. Co-ordination with other departments during the process of salvage is must.
- iv. Different teams and groups will be formed for discharging various duties of the commercial department, each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.
- v. Separate teams and groups should be formed as detailed below, headed by a commercial officer.
- vi. One team will hire road vehicles for use and other related activities.
- vii. One group will arrange beverages and food both for injured as also for uninjured .
- viii. One group should take care of uninjured passengers who have to be cleared from the accident site.
- ix. One group will assist Medical department in preparing a list of injured passengers input the same into the PC in CAC.
- x. One group will assist Medical department in shifting injured passengers to hospitals .
- xi. One group will assist the Medical department in preparing a list of dead bodies and looking after them.
- xii. One team will make ex-gratia payment to injured passengers and next of kin of dead.
- xiii. One team will deal with refund cases and claims compensation formalities.
- xiv. One group will be in-charge of unclaimed luggage and other consignments .
- xv. One group will be in-charge of post admittance hospital care of injured and taking care of relatives.

C. Withdrawal of cash from station earnings:

- i. In order to meet accident related expenditure, officers can withdraw money from station earnings duly following the procedure incorporated in Commercial Manual Vol. II Rule No. 2425
- ii. Before Sr. DCM leaves for accident site, he should withdraw sufficiently large amount of cash from station earnings to meet with immediate requirements at the site.
- iii. More cash may be withdrawn subsequently as and when required.
- iv. A Commercial supervisor should be nominated for this purpose and he should withdraw Rs. 5 lakhs and carry it with him, duly escorted by RPF personnel.

D. Hiring of Vehicles:

A large number of road vehicles are required at an accident site for following purposes:

- i. Taking injured passengers to hospitals.
- ii. Taking doctors and other railway officials to hospitals.
- iii. Clearance of uninjured passengers.
- iv. Taking dead bodies to mortuaries.
- v. Bringing men and materials, etc. to accident site.
- vi. Taking unclaimed luggage for being kept in safe custody.
- vii. Taking relatives to hospitals and mortuary.

E. Other miscellaneous work:

- i. For this purpose apart from whatever number of railway vehicles may be available, extra road vehicles may be hired.
- ii. Adequate number of road vehicles (at least 10) should be hired along with standby drivers for round the clock duty and they should be attached to CAC for taking relatives to hospitals, mortuaries etc.
- iii. Nominated railway staff to be attached to each hired vehicle round the clock (even group 'D' would suffice), so that optimum use can be made of the vehicle.
- iv. Buses from State transport authorities should also be requisitioned along with extra Drivers for round the clock duty.
- v. One railway staff should be attached as in charge of each bus on round the clock duty, who will accompany the bus wherever it goes and bring it back in time (even group 'D' would suffice).
- vi. In case hospitals are in different towns, then road transport buses should be put on fixed time round trip schedule for movement of relatives from CAC to various locations and back to CAC.
- vii. All hired vehicles and requisitioned buses should have stickers pasted on their front and rear windscreens indicating 'RAILWAY ACCIDENT DUTY'.

F. Catering arrangements:

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

G. Clearance of uninjured passengers:

- i. First of all, arrangements for water and food for stranded passengers should be made.
- ii. Announcement should be made for registering names of safe passengers.
- iii. Clearance of accident-affected passengers from accident site should be planned along with Operating branch that will provide the empty coaching rake.
- iv. Make announcement thorough PA system informing passengers regarding their clearance from site either by:

- (a) Front portion of the accident involved train.
- (b) Rear portion of the accident involved train,
- (c) Empty coaching rakes that have been brought to the accident site,
- (d) Road bridging that has been arranged.
- v. Arrange adequate coolies for carrying passenger's luggage while they transfer to the new train.
- vi. In case of road bridging, arrange road transport to clear stranded passengers, record details of passengers dispatched and relay particulars to Divisional Emergency Cell.
- vii. Senior-most official at site shall have powers to arrange conveyance for affected passengers free of charge by any available mode of transport and also incur expenditure for carriage of passengers' luggage, etc.

H. Luggage and consignments:

- i. As and when unclaimed luggage and personal belongings are taken out from coaches, a list should be made coach wise, and each item should be tagged with coach number.
- ii. A list of each item with distinguishing marks should be made.
- iii. If possible, the cabin number inside the coach should also be indicated.
- iv. Luggage claimed should be handed over on satisfactory proof of ownership.
- v. Unclaimed luggage and personal belongings of injured/dead passengers should be taken possession of for safe custody.
- vi. Unclaimed luggage should be stored in a safe place, preferably, part of the same building which is being used for preserving dead bodies.
- vii. These should be stored in separate rooms coach wise so that it is easy for relatives to identify.
- viii. A list should be displayed outside each room indicating the coach no. whose luggage is stored there.
- ix. It is the responsibility of Commercial department to take charge of all unclaimed luggage etc. These should be taken over from the charge of RPF.
- x. Booked luggage, parcels and consignments available in SLRs, VPU's etc. should be taken out and sent by road to nearest Jn. Station for safe custody.
- xi. Booked perishables available in SLRs, VPU's should be taken out and either auctioned at site or sent by road to nearest Jn. Station for being auctioned.
- xii. RMS consignments on the train should be shifted to school building for safe custody till Postal Authorities come and take over custody.

CHAPTER- 13

Media Management Plan

13.1 Objectives:

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

13.2 Duties of Public Relation Organization (PRO):

- i. CPRO and his team will collect whatsoever information is available from Divisional Control Office and first information would be released to the media within 60 minutes of intimation of the accident.
- ii. The information shall include telephone numbers of Helpline Enquiry Booths.
- iii. PRO and the entire PR organization should proceed to the accident site in the 1st Special train carrying DRM and other Divisional Officers.
- iv. Number of photographers with digital cameras and video photographers should also be taken along to the accident site.
- v. PRO will be available in the UCC during the day.
- vi. Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.
- vii. PRO / CPRO will organize Press briefings at fixed timings as detailed in Section 15.6 below.
- viii. PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections / clarifications may also be issued, if required.

13.3 Spokes Person:

- i. Only GM, DRM, CPRO, Chief Emergency Officer in HQ Emergency Cell and Divisional Emergency Officer in Divisional Emergency Cell are competent to interact or give interview to press and electronic media.
- ii. Apart from the above, any other officer authorized by GM is competent to interact or give interview to press and electronic media.
- iii. Railway's endeavor shall be to ensure that only factually correct and confirmed information is relayed to the media.
- iv. No inflated or exaggerated version of any fact should be relayed to the media.
- v. Unconfirmed news having no authentic source shall not be relayed to media.
- vi. No Railwaymen shall express or voice any criticism, or express his personal opinion or views about the accident, at any point of time.

13.4 Information to be relayed to Press and Electronic Media:

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

13.4.1 Accident:

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

13.4.2 Un-injured passengers:

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

13.4.3 Dead and Injured passengers:

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

- xi. Number of dead bodies recovered and number of bodies identified.
- xii. Identification of dead bodies takes much longer since either:
 - They were travelling alone, or
 - Their companions are injured and are not in a position to identify them, or
 - Their companions have also perished.
- xiii. Under such circumstances it is possible to identify dead bodies only when relatives come from their hometown.
- xiv. This aspect of identification of dead bodies and reasons for delay should be explained to the Media.

13.4.4 Help line Enquiry Booths:

- i. Setting up of Helpline Enquiry Booths.
- ii. Details of Helpline enquiry Booths as follows:
 - Stations where these have been opened.
 - Telephone Nos.
 - FAX Nos.
 - Internet address of Mumbai Division / Western Railway on the Railnet website. (www.railnet.gov.in).
- iii. In Mumbai Division Enquiry Booth would be set up at the following stations with fixed numbers as under:
 - 10721 - Mumbai,
 - 1072 -Surat & Nandurbar.

13.4.5 Train Services:

- i. Details of train operation with regard to
 - Diversion
 - Regulation
 - Rescheduling
 - Cancellation.
 - Short termination
- ii. Running of 2 passenger special trains for carrying relatives to the site of accident.
- iii. These trains will be started from originating and destination stations of the accident involved train and will be given same stoppages as the accident involved train for picking up relatives enroute.
- iv. Expected departure time of relatives special from their originating stations.
- v. Refund being granted in helpline Enquiry Booths for passengers whose journey has been interrupted.

13.4.6 Casualty Figures:

- i. In all accidents, as long as rescue and relief work continues, there is always a difference between casualty figures given by railways and casualty figures quoted by the Media.

- ii. The reason for this difference is that railways give casualty figures based on actual number of dead bodies recovered, whereas Media estimates casualty figures based on the damage visible and likely final tally.
- iii. During Press Briefings, this point should be clarified that at that point of time so many bodies have been recovered.
- iv. However, it should also be made clear that casualty figures are likely to go up since rescue work is still continuing.
- v. Assessment regarding likely number of deaths and injuries may also be made if considered necessary. Such assessment should be based on :
 - Total number of coaches involved.
 - Number of coaches searched.
 - Number of coaches yet to be dealt with.
- vi. Particular reference should also be made to coaches that are crushed or that have climbed on top, and have not yet been searched.
- vii. For example, the media can be informed that as of 13:00 hrs, 2 coaches have been dealt with and--- numbers of bodies have been recovered. 8 more coaches are still to be searched and casualties are likely to go up.

13.4.7 Press Briefings at accident site:

- i. CPRO / PRO on arrival at accident site shall collect factual information from the OIC site and relay the same to Media personnel at site and also to divisional Emergency Officer in the Divisional Emergency Cell. Thus, an on line communication channel will be established to keep media informed of all important details.
- ii. The first Press briefing will be held within one hour of CPRO / PRO's arrival at site. Subsequent briefings will be held according to the schedule given below.
- iii. There should be fixed time Press Briefings so that there is no confusion regarding different versions given to separate channels at various points of time.
- iv. Simultaneous Press Briefings should be held at accident site as also at HQ Emergency Cell and Divisional Emergency Cell as per fixed timings given below so that the same version is given by all concerned.
- v. Information to be given to the media will be of 00:30 hrs. earlier. For example the media briefing held at 7:30 hrs. will convey all information as at 7:00 hrs on that date.
- vi. On the first two days, there should be 6 media briefings per day. These should be scheduled at the following timings :
 - **07:30 hrs,**
 - **10:30 hrs,**
 - **13.30hrs,**
 - **16:30 hrs,**
 - **19:30 hrs**
 - **22.30 hrs**

vii. Thereafter, for the remaining days, there should be 3 media briefings per day. These should be scheduled at the following times.

- 07.30 hrs
- 13.30 hrs
- 19.30 hrs

viii. All media releases will be up loaded on the Western Railway website, and new page opened to give specific information with regard to the accident. The priority of information release to various media will be as under:

- TV Channels.
- Agencies UNI, PTI, Varta, Bhasa
- Print Media.

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

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

CHAPTER- 14

PASSENGER CARE

14.1 General:

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

14.2 Hospitalization of the injured:

A. General policy in case of Railway accidents in which casualties occur is that of rapid evacuation to Railway Hospital after rendering immediate and necessary first-aid treatment.

B. In case there are no Railway hospitals nearby, then they are to be admitted in the nearest Govt. Hospital.

C. In following cases, injured may be taken to a Private Hospital -

- i. When there is no Railway or Govt. Hospital available within a radius of say 8 Kms. of the site of accident or,
- ii. When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient,
- iii. Except where Railway doctor certifies, such injured passenger should normally be eligible to the lowest class of accommodation in private hospitals where Different scales are available,
- iv. Where the family of the injured person desires to be provided with a higher-Class accommodation, the family should give in writing to pay the extra cost Involved directly to hospital authorities.

D. For this purpose, each division should make out a working arrangement with such private hospitals as may be necessary in areas served by them so that in an emergency, injury cases can be referred to hospitals concerned without loss of time.

E. To facilitate matters and to avoid misunderstanding, CMD should draw up a list of such private hospitals bearing in mind Railway and non-railway hospitals in the vicinity.

F. CMD should also settle charges to be paid for such cases for each class of accommodation.

G. Bills by such private hospitals should be submitted through CMD who will certify the correctness of charges payable, before passing for payment by FA & CAO.

H. Payments to private hospitals under chapter Para can be arranged locally by the Railway and Ministry of Railway approval is not necessary.

(Extract of Para 701(1) & Para 712 of Chapter VII of IRMM and Para 1421 of Indian Railway

Establishment Manual and M.O.R.'s letter No.MH 59/MES /96 /Medical dt. 18.12.1959).

I. When injured are admitted in non-railway hospitals, Railway Doctors should be deputed to these hospitals to render necessary assistance, including supply of medicines as required which may not be available in these hospitals.

J. They should also carefully monitor the condition of injured and maintain an updated list with all details.

K. If more than one hospital is involved, apart from deputing doctors to individual hospitals, a Railway doctor should also be deputed to coordinate and maintain centralized updated position.

14.3 Facilities to be made available in hospital:

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

14.4 Communication:

- i. STD equipped telephone should be made available to passengers to communicate with their relatives.
- ii. BSNL/Railway Telephone available at adjoining Stations/Cabins/Gates shall be extended to the accident site.
- iii. If feasible, PCO telephones and other BSNL phones in nearby localities/villages/town shall also be extended to the accident site by persuading owners of these phones.

- iv. Payments for such telephone connections will be made from station earnings by S&T deptt.
- v. SM should hire upto 5 mobile phones to meet the need of stranded passengers, wherever cellular phones connectivity is available. Stranded passengers should be permitted to use these phones free of charge. In case additional phones are required Sr.DSTE may arrange then with the approval of Site Incharge.
- vi. These cell phones should be used to convey information regarding the safety of passengers to their friends and relatives.

14.5 Arrival of relatives:

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

CHAPTER- 15

FORMAT FOR REPORTING ACCIDENT

15.1 PERFORMA FOR REPORTING TRAIN ACCIDENT FROM SITE

1	Category of accident	Class of accident		
2	Date/Time of accident			
3	Railway and division			
4	Section			
5	Block section			
6	At station/Mid-section			
7	Gauge - (BG/MG/NG)			
8	Traction (Elect/Non Elect)			
9	Type of route			
10	System of working			
11	Class of station Type of signaling Standard of interlocking			
12	Train particulars	Train No.	Engine No.	Load
13	Brief particulars			
14	Train working condition (Normal/Abnormal) (in brief)			
15	Procedural Failure, if any (in brief)			
16	Casualty	Killed..... Grievously injured..... Simple injured.....		
17	Relief arrangement	ARME Ordered.at..... hrs, Left at.....hrs, At site..... hrs ART Ordered.at.....hrs, Left at..... hrs, At site..... hrs Crane Ordered.at..... hrs, Left at.....hrs, At site..... hrs		
18	Officers at site			
19	Restoration	Rerailment completed Track fit at .....hrs/date S&T fit at hrs/date..... OHE fit at .....hrs/date		
20	Time of first train passed on affected line/lines			
21	Prima facie cause			
22	Gate particulars	As per Annexure-A Proforma		
23	Loco pilot particulars	As per Annexure-B Proforma		
24	State / District			
25	Other information if any			

15.2 GATE PARTICULARS (MANNED / UNMANNED):

Traffic/Engineering	Class	Gate no	Kms
Lifting barriers /Flap/Chain:-			
TVU :-		YEAR :-	
INTERLOCKED or NONINTERLOCKED			
Telephone provided :-		Not provided :-	
Normal position of gate	Open to road traffic :-		Close to road traffic :-
Road Signs :-	Speed Breakers :-		Whistle Board :-
Type of Road	Pucca :-		Kuchha :-
Visibility (in meters) :-			
Gradient (if any) :-			
No of accident during last 2 years			

15.3 LOCO PILOT PARTICULARS:

Name	:	.....
Date of birth	:	.....
Family members	:	.....
Qualification	:	.....
Headquarter	:	.....
Grade: -	:	.....
	:	 Pay.....
Breathalyzer test:-at the time of signing ON	.....	After accident.....
(positive-intoxication) (negative- without toxication)		
Date of appointment	:	As.....
Promoted as ALP	:	.....
Promoted as Goods LP	:	.....
Promoted as passenger LP:		.....
Promoted as MAIL/EXP LP:		.....
Date of Medical Examination: - Passed	.....	Next Due.....
With or without glasses		
Date of refresher.	:	- Passed .....Next Due.....
Safety camp	:	- Passed .....Next Due.....
Competency	:	Automatic section.....
Safety Category Grading	:	.....
Psycho Test.	:	.....
Nominated Loco Inspector	:	.....
Signing ON/OFF	:	.....
Rest availed before duty	:	.....
Last trip on Section	:	.....
Award/punishment	:	.....
Previous history of accident if any:		.....

CHAPTER- 16

Flooding: Dos and Don'ts

16.1 Dos:

- 16.1.1 Switch off all electrical and gas appliances, and turn services off at the mains.
- 16.1.2 Take your emergency kit and try to let your friends and family know where you are going.
- 16.1.3 Avoid contact with flood water - it may be contaminated with sewage, oil, chemicals or Other substances.
- 16.1.4 If you have to walk in standing water, use a pole or stick to ensure that you do not Step into deep water, open manholes or ditches.
- 16.1.5 Stay away from power lines - electrical current can travel through water. Report power Power lines that are down to the power company.
- 16.1.6 Look before you step - after a flood, the ground and floors are covered with debris, which may include broken bottles, sharp objects, nails etc? Floors and stairs covered with mud and debris can be slippery.
- 16.1.7 If water is causing ceiling to sag, shut off electricity. Use ice pick to puck drain holes after placing pans below.
- 16.1.8 If the ceiling above is bulging with water, do place a bucket underneath the spot and poke a small hole into the ceiling to relieve the pressure and let the water through proceed with care, however.
- 16.1.9 Do use buckets, clean towels and mops to remove as much of the water from the afflicted rooms as possible. Use white towels on carpets and furniture to prevent bleeding.
- 16.1.10 Do place sheets of aluminum foil between furniture legs and wet carpet.
- 16.1.11 If the weather is nice, open all windows to allow air in and remove as many belongings as possible to dry outside in the sunshine.
- 16.1.12 Stay away from downed power lines, and report them to the power company.
- 16.1.13 Do document the damage for insurance purposes by taking notes or photographs. listen to the radio or television for information.

16.2 Don'ts:

- 16.2.1 Don't walk through flowing water - currents can be deceptive, and shallow, fast moving water can knock you off your feet.
- 16.2.2 Don't swim through fast flowing water - you may get swept away or struck by an object in the water.
- 16.2.3 Don't drive through a flooded area - You may not be able to see abrupt drop-offs and only half a meter of flood water can carry a car away. Driving through flood water can also cause additional damage to nearby property.
- 16.2.4 Don't return to your property until the "All Clear" has been given.
- 16.2.5 Don't reconnect your power supply until a qualified engineer has checked it. Be alert for gas leaks - do not smoke or use candles, lanterns, or open flames.
- 16.2.6 Don't eat any food that has come into contact with flood water.
- 16.2.7 Never turn on ceiling fixtures if ceiling is wet. Stay away from ceiling those are sagging.
- 16.2.8 Never use TVs, VCRs ,CRT terminals or other electrical equipment while standing on wet floors, especially concrete.
- 16.2.9 Don't attempt to remove standing water using your vacuum cleaner.
- 16.2.10 Don't leave colored clothing, magazines, newspapers on wet hardwood floors or carpeting since discoloration may occur.
- 16.2.11 Don't go into any rooms where you feel you may be in danger
- 16.2.12 Don't remove standing water in a basement too fast. If the pressure is relieved too quickly it may put undue stress on the walls.
- 16.2.13 Don't scrub or brush mud and other deposits from materials. This may cause further damage.

CHAPTER- 17

FIRE ACCIDENTS

17.1 Introduction:

17.1.1 Fire on a running train is more catastrophic than on a stationary one, since fanning by winds helps spread the fire to other coaches. Moreover, passengers sometimes jump out of a running train on fire resulting in increased casualties

17.1.2 In case of fire in running train, every Railway Staff available on the train or at the site shall immediately try and stop the train and plunge into action to save lives and properly.

17.2 Main causes of fire in trains:

17.2.1 Carrying stoves, sigris, gas cylinders, kerosene oil, petrol, fireworks etc. in passenger compartments.

17.2.2 Making fire/using fire near paper, wood, petrol or such other inflammable articles.

17.2.3 Lighted match sticks, cigarette ends carelessly thrown.

17.2.4 Short circuit in electrical wrings.

17.2.5 Using naked light during "token delivery" to the driver, shunting of inflammable loads, sealing of inflammable wagons.

17.2.6 Use of open fire, smoking near gas/petrol tank.

Note: 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. In general fire originates in a small level. When burning materials with adequate supply of air surround it, fire spreads.

17.3 Action to be taken in case of fire in train:

17.3.1 First and foremost, immediately summon the fire brigade and try to stop the train.

17.3.2 Secondly, if you smell gas or vapour or even in case of excessive smoke, hold a wet cloth loosely over your nose & mouth and breathe through it in as normal a manner as possible.

17.3.3 All Railway staff and passengers should take all possible precaution to avoid any of the above mistakes so that possibility of fire breaking out can be minimized. In general fire originates in a small level. When it surrounded by burning materials with adequate supply of air, fire spreads.

17.4 In case of fire in a passenger train:

a. The train shall be stopped, immediately.

b. Instruct passengers to go to the other end of the coach which is away from fire and if possible cross over to the next coach through vestibule. Evacuate passengers from burning coaches. More people expire due to suffocation from smoke rather than due to actual burning.

c. Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils.

d. Insist that passengers should save themselves first and not bother about their luggage which can be retrieved later on. Make sure no passenger lie down on the floor.

e. Try to put out the fire before it becomes a blaze by using either water or blanket etc.

f. After the train has stopped the passengers should come down from the coach immediately.

g. Building up confidence of passenger by suitable advice is of great importance.

h. Efforts shall be made to save the lives and RMS first.

i. Information should be given to the nearest SM/control/fire station quickly.

j. In charge of stations in rear or front get their fire extinguisher mobilized on first information and deploy trained personnel.

- k. The burning vehicle shall be isolated, at a distance of not less than 45 meters being left between it and the other vehicles of the train.
- l. The train shall be protected in accordance with GR. 6.03, if not protected by fixed signals.
- m. Every efforts shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
- n. Earth or sand, if available shall also be used to extinguish fire.
- o. If the fire is suspected to be due to electrical short circuit, source shall be switched off; the electric couplers at the both end shall be disconnected & fuse from the battery from boxes shall be removed.
- p. In case the fire is near a tank, the Guard and Driver shall use their discretion to proceed there but no such attempt shall be made until the portion of the train in rear of burning vehicle has been detached.
- q. All available help should be mobilized to extinguish the fire.

17.5 In the event of a vehicle on a Train being on fire :

17.5.1 Stop the train immediately.

17.5.2 Don't panic.

17.5.3 Evacuate passengers from burning coaches.

17.5.4 Protect properly, valuables & mails.

17.5.5 Locate fire extinguishers substances viz. water bucket with water/sand, fire extinguishers etc.

17.5.6 Use fire extinguisher, if any, and put out the fire. Fire extinguishers are provided in SLRs, Locos and all A.C. coaches.

17.5.7 Use water from the coaches and extinguish the fire.

17.5.8 Throw earth or sand, if available, on the fire.

17.5.9 Ascertain the type of fire viz, dry, oil, gaseous, electric and use the right type of fire Extinguishers.

17.5.10 Isolate the burning vehicle from other vehicles by uncoupling.

17.5.11 Train to be protected by Driver and Guard at both ends according to the provision of G&SR 6.03.

17.5.12 Report it to the nearest station/control/fire station.

17.5.13 every effort shall be made to extinguish the fire and to save the wagon labels, seals and contents of the vehicle

17.5.14 in case fire is discovered when the train is near a tank or watering station, the Guard and Driver shall use their discretion to proceed there but no such attempt shall be made until the portion of train in rear of burning vehicle has been detached.

17.5.15 Inform all concerned to assist in extinguishing the fire.

17.5.16 In case of fire from electrical short circuit switch off the source.

17.6 In the event of fire on an Electric engine/EMU:

17.6.1 Driver shall immediately switch off the circuit and lower and pantograph. The train shall then be brought to a stop at once.

17.6.2 After disconnecting the electric supply to affected circuits, driver shall take action to put out the fire.

- 17.6.3 If fire cannot be extinguished by the above means driver shall advise TPC through emergency telephone to arrange for OHE of the affected section to be switched off.
- 17.6.4 The Guard and any other staff available shall render all possible assistance to the driver in putting out the fire.
- 17.6.5 Ordinary fire extinguishers or water from a hosepipe shall on no account be used to extinguish fire on live wire or electrical equipment. Dry Chemical Power (DCP) type Fire extinguishers may be used on electric fires.
- 17.6.6 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

17.7 In the event of a fire on a Diesel Engine/DMU stock:

- 17.7.1 The Driver/Motorman shall immediately switch off the circuit breaker and shut down the engine. The train shall be brought to stop at once.
- 17.7.2 The Guard shall give all possible assistance to the Driver in putting out the fire.
- 17.7.3 Fire extinguishers of approved type shall be provided on each diesel locomotive and motor coach of DMU when these are turned out from the home shed. The Foreman/CLS in charge of the shed shall inspect the fire extinguishers and ensure that these are in good working condition

17.8 When a person is on fire:

- 17.8.1 Approach him holding the nearest available wrap in front of you.
- 17.8.2 Wrap it round him.
- 17.8.3 Lay him flat and smother the flames.
- 17.8.4 He may roll on the floor, smothering the flames.
- 17.8.5 On no account should be rush out in the open air.
- 17.8.6 Call for assistance.

17.9 Fire caused by Petrol or other inflammable liquids, acids or gases:

- 17.9.1 Segregate the affected wagon, coach or area involved.
- 17.9.2 On opening of wagon, do not enter it immediately. You would thus, avoid fumes, which may be dangerous
- 17.9.3 Use foam type fire extinguishers and sand and not water or soda acid type fire extinguishers. Dry Chemical Power (DCP) type Fire extinguishers may be used.
- 17.9.4 Do not bring naked lights near the site of fire.
- 17.9.5 Warn the people living in the surrounding areas within one Km. Radius.
- 17.9.6 Stay away from ends of tanks, as tanks normally burst from the ends.
- 17.9.7 Cool tanks that are exposed to flames with water from the sides only after the fire is put out
- 17.9.8 Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
- 17.9.9 Inform the nearest Fire Station intimating that Petrol or any other inflammable liquids, acid or gases, have caused the fire

17.10 In case of fire due to Explosive/Inflammable/Dangerous Goods:

17.10.1 Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.

17.10.2 Following steps may be taken if no undue risk is involved:

- a. Move unheated cylinders to a safe place after ensuring closing of valves.
- b. Cool the hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion

17.10.3 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 Cosigner as required

17.10.4 Inform the Chief Controller of Explosives by fax/telephones.

17.10.5 Inform officer in charge or nearest police station.

17.10.6 Inform department officers concerned.

17.10.7 Pending the visit of the Chief Controller of Explosive/his representative, the wreckage and debris shall be left undisturbed except to save lives.

17.10.8 After getting information from the Chief Controller Explosive that he does not wish any further investigation, the restoration work may be commenced.

17.11 Fire Extinguishers:

17.11.1 Dry chemical powder type fire extinguisher (DCP):

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

17.11.2 How to use:

- i. Carry to the place of fire and keep it up right.
- ii. Remove the safety clip. Hold the nozzle pipe tightly.
- iii. Strike the knob located in the cap.
- iv. Sealing disk of the cartridge gets broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.
- v. Direct the steam of the powder at the base of the flame.
- vi. For effective result stand at about 1.5 to 2.5 metre near the seat of the fire.
- vii. Move forward with moving the nozzle rapidly from side to side in sweeping motion.
- viii. When using on outdoor fires operate from the up wind side for effective spray.

17.11.3 Types of Fire Extinguishers and their uses:

Type of fire extinguishers	Fire in involving wood, paper, textiles	Fire involving flammable liquids, petrol	Fire involving flammable gases, butane, propane,	Fire involving burning metals eg.	Fire involving electrical	Fire involving cooking oils
Water	✓	X	X	X	X	X
Foam	✓	✓	X	X	X	X
DCP	✓	✓	✓	X	✓	X
M2S/L2	X	X	X	✓	X	X
Carbon Dioxide	X	✓	X	X	✓	X
Wet Chemical	✓	X	X	X	X	✓
✓ USE X DO NOT USE						

7.12 Classification of fires:

For all practical purposes the basic types of fires can be grouped into following four classes;

17.12.1 Class A Fires:

Fires involving combustible materials of organic nature, such as wood, paper, rubber and many plastics, etc., where the cooling effect if water is essential for extinction of fires.

17.12.2 Class B Fires:

Fires involving flammable liquids, petroleum products, or the like, where a blanketing is essential.

17.12.3 Class C Fires:

Fires involving flammable gases under pressure including liquefied gases, where it is necessary to inhibit the burning gas at fast rate with an inert gas, power or vaporizing liquid for extinguisher.

17.12.4 Class D Fires:

Fires involving combustible metals, such as magnesium, aluminum, zinc, sodium, potassium, when the burning metals are reactive to water containing agents, and in certain cases carbon dioxide, halogenated hydrocarbons and ordinary dry powders. These fires require special media and techniques to extinguish.

<i>Safety is a frame of mind...So concentrate on it all the time.</i>
<i>The life you save just might be yours!</i>
<i>Don't dare, take care. Observe safety every where.</i>
<i>No safety know pain, know safety no pain.</i>

CHAPTER- 18

BOMB EXPLOSION AND TERRIORIST THREAT

18.1 BOMB EXPLOSION AND MITIGATION PROCESS:

A bomb is an explosive device that generates and releases its energy very rapidly. The explosion creates a violent, destructive shock wave.

18.1.1 Causes of Bomb explosion:

- i. Terrorist/Anti-social element.
- ii. Due to war between two countries
- iii Atomic and Nuclear reactors.

18.1.2 Risk involved:

- i. Mass destruction of human being and object.
- ii. Life long injury
- iii. Huge financial loss.
- iv. Genetic disorder.
- v. Environmental pollution.

18.1.3 Person receiving call regarding bomb threat should:

- i. Remain calm and talk to the person as long as he can.
- ii. Try to keep the caller on the line, obtaining as much information as possible.
- iii. Ask for specifics such as time of detonation, description of bomb, location, reason / pur-pose of the act, dialect mannerism and identity of the caller.
- iv. Inform and alert the authorities.
- v. Alert police, fire brigade and explosive departments and bomb detection squad.
- vi. Pass on the information to all departments concerned.
- vii. Take initiative for evacuation of all persons from premises and avoid unnecessary crowd-ing near the area.
- viii. Persons noticing a bomb like object, should bring it to the notice of the nearest available officer.
- ix. Inform control to take further steps for regulating train services.
- x. Stop the train movement immediately and detrain the passengers and move them away from the premises.
- xi. Wait for clearance from the police department to restore normal working.
- xii. Utilise "Caller ID" facility if provided to trace the caller.

18.1.4 In case of explosion following steps to be followed:

- i. Remain Claim and keep an eye on suspicious movement.
- ii. Evacuate the building immediately.
- iii. Information to the fire brigade, Police, Control and Divisional Officers.
- iv. Assist the injured and disabled persons.
- v. Call the Ambulance and other emergency services.

18.2 IN CASE OF THREAT OF TERRORIST ATTACK:

18.2.1 PRECAUTIONS:

- i. Keep the possibility of entrapment in mind.
- ii. Avoid obvious means of entry.
- iii. Avoid hand movement of suspicious objects.
- iv. Look for things out of place.
- v. Avoid development of fixed daily personal or group shifts.
- vi. Provide 24 hours security for assembly points.
- vii. Be particularly alert to entrapment situation when changing shifts.
- viii. Avoid predictable pattern of patrol.
- ix. Don't panic if the vehicle is struck by petrol bomb.
- x. If fire bombed, don't panic. It only seems more dangerous than it actually is.
- xi. If a suspicious container or package is found, immediately alert all Officers and Security and get out.
- xii. Insist that the person desiring to leave the package should open it and display the contents.
- xiii. Conduct careful visual inspection.
- xiv. Never attempt to open or inspect the suspicious package on your own.
- xv. If a suspicious package is found abandoned, clear the area and notify the bomb squad.
- xvi. If a vehicle is found in an abandoned state, visually inspect any package found inside the vehicle.
- xvii. In case of abandoned vehicle, do not flip switches, turn knobs, release hand brakes, blow the horn, step on the brake or perform other operations until you are sure that no bomb is located in or under the vehicle.
- xviii. On arrival, security staff, as rapidly as possible conduct a thorough search of the area surrounding the bomb scene.
- xix. A security staff must remember to completely search the area even when a second bomb is found. He must look out for the third and fourth bombs.
- xx. Security Staff must check those areas that lead to the bomb scene as well as vehicle parking areas.

18.2.2 PREVENTION:

- i. Leave undisturbed any suspicious, abandoned articles encountered.
- ii. Leave undisturbed any bomb encountered even if it is "DUD".
- iii. If a suspected bomb is found, clear the area to a minimum distance of 300 meters.
- iv. Request for bomb squad assistance.
- v. If the bomb is to be moved, use remote means.

18.3 ROLE OF CIVIL POLICE, GRP, RPF STAFF ETC.:

- i. Immediately reach at the site and cordon off the area.
- ii. Clear the suspected place of the public.
- iii. Should not allow any unauthorized person to the minimum distance of 300 meters if any suspicious object suspected to be bomb is found.
- iv. They will rush to the site with the sniffer dogs.
- v. Fire brigade staff with firefighting equipments will rush to the site.
- vi. Special bomb squad will reach at the site to diffuse the suspected bomb.
- vii. In case of terrorist attack, the police will cordon the area.
- viii. Message of not to panic to be circulated among the public.
- ix. The police officials should carry a special visual inspection to remove bombs till they are satisfied.
- x. The police even after a bomb being blast should look out for the other bombs till they are satisfied.
- xi. Railway authorities will keep themselves in readiness with relief and rescue teams of doctors and other and material.
- xii. In case of terrorist attack, special task force will be called.
- xiii. ART/ARME to be kept in readiness to deal with the relief measures.

CHAPTER- 19

LIQUIFIED PETROLEUM GAS / OIL EMERGENCY

19.1 ACTION TO BE TAKEN IN OIL TANK/LPG EMERGENCY:

LPG is extremely inflammable, may be ignited by heat, spark or flame. Its vapours may travel to a source of ignition and flash back. Container may explode in heat or fire. Vapour explosion can cause hazard indoors, outdoors or in sewers. Vapours may cause dizziness or suffocation. Contact will cause severe frostbite.

19.1.1 In case of accident involving LPG tank wagon due to fire or leakage, following action is to be initiated.

- i. Inform civil authorities, and summon assistance from fire Brigade, Oil Co. Depot, Bottlin Plant Refinery etc.
- ii. Keep unnecessary people away. Isolate hazard area and deny entry.
- iii. Stay upwind, keep out of low areas.
- iv. Isolate for 1 KM for all directions.
- v. If tank is involved in fire or Leak, regulating/isolating trains is necessary.

19.1.2 In case of derailment of LPG wagon:

- i. Check for leakage.
- ii. Advise all not to smoke and extinguish all fire including HS Lamp, point indicator, etc. lit by K. Coil within 1000 meters.
- iii. Examine tank barrel and fittings carefully for any damage.
- iv. To hoist the wagon, use diesel crane with spark arrester at exhaust.

19.1.3 In case of leakage in LPG tank wagon:

- i. Do not start hoisting of wagon.
- ii. Make efforts for stopping the leak.
- iii. Disperse vapour away from ignition source by water spray.
- iv. Shut off ignition sources immediately.
- v. If leakage is minor, put gunny bags on leakage and wet within water icing.
- vi. Give warning to District Authorities for evacuation of population.

19.1.4 In case of fire due to explosives/ inflammables dangerous goods:

- i. Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
- ii. Following steps may be taken if no undue risk is involved:
 - a. Move unheated cylinders to a safe place after ensuring closing of valves.
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 cosigner as required.
- iv. Inform the Chief Controller of Explosives by fax / telephone.
- v. Inform Officer in charge of nearest police station.
- vi. Inform department Officers concerned.

- vii. Pending the visit of the Chief Controller of Explosives / his representative, the wreckage and debris shall be left undisturbed except to save lives.
- viii. After getting information from the Chief Controller of Explosives that the does not which any further investigation, the restoration work may be commenced.

19.2 Action to be taken at Divisional level:

After getting the information regarding LPG / Oil Emergency message like leakage or fire or derailment of LPG / Oil wagon from Loco Pilot or Guard or Station Master, the Controller will take the following action immediately in simultaneous manner:

- i. Inform higher Railway authorities.
- ii. Ordering of ART/ARME. In case of leakage it can be brought to the nearest station and to the affected place after leakage source has been blocked.
- iii. Informing Disaster Management authority of related district.
- iv. Informing Fire Brigade & LPG / OIL companies like Reliance, IOC, ESSAR and organizations.
- v. Stop movement of train towards the affected section.
- vi. Adjoining station will be asked to mobilize the staff and other local resources so that it may be utilized in time to deal with the emergency.
- vii. The RPF will be informed to protect the affected area for maintaining law and order and avoid crowding at the spot.
- viii. The RPF Staff will also reach the site with fire fighting equipments and staff to deal with the emergency.
- ix. In case of leakage of LPG, nearby State electricity department (GEB) will be asked to cut the electric supply immediately.
- x. Loco Pilot will immediately switch off the Locomotive and precaution to be taken as per G&SR.
- xi. Station staff will immediately cut off the power supply, put off the burning K. Oil hand signal lamp.
- xii. The Station staff colony will also be asked to stop the cooking or any work related to burning of fire.

CHAPTER- 20

ACTION PLAN FOR CYCLONE AND STORM

20.1 Weather warning message:

Meteorological department, Govt. Of India issues, messages of warning whenever storms/ Gales or heavy rainfall are expected in following conditions:-

- i. Dangerous rainfall - When amount of rainfall is expected 5 cm & above in 24 hours.
- ii. Dangerous wind velocity - When wind velocity is 65 KMPH and above.

20.2 Action to be taken on receipt of weather/cyclone warning messages:

20.2.1 Action by CTNL/Dy.TNL/Engineering Control:

CTNL/Dy.TNL should repeat the message to the concerned SMs/ASMs of station, which are likely to be affected and other Divisional control for taking necessary action. He shall also advise DRM/ADRM, Sr.DOM & Sr.DSO/Sr.DEN.

A register should be maintained in control office showing full particulars of the receipt and action taken on the weather/cyclone warning message, showing the date and time of receipt of the warning message.

20.2.2 Action by Station Masters, Driver and Guard:

On receipt of weather/cyclone warning advises from the controller, the SM should take the following action.

i. Intimation of staff:

The SM on duty should immediately handover the message received from the controller to

ADMO/ADEN/SSE/SE(P.Way), (Works), (OHE/PSI) and other Sr. Subordinates & Inspectors like TI, LI etc. and headquartered and obtain their acknowledgement. In case of any officer is posted at the station they should also be immediately informed.

ii. Control of Trains:- In such events instructions should be reiterated to all by CB

Messages. Precautions to be taken by SM, Driver & Guard regarding control of trains:

- a. In case of strong winds, detain the train until the storm and high winds abate and it is considered safe to allow the train to proceed.
 - b. The driver of the train should wait till, in his opinion, the intensity of wind has come down to the level that the movement of train is safe.
 - c. Don't stop trains at places like sharp curves, high embankments, cuttings and bridges including approaches. The train could be restarted in consultation with the guard only after the storm and high winds abate and it is considered safe to proceed.
- iii. When a train be caught on run in a cyclone, storm or strong wind of an intensity which in the opinion of the driver is likely to endanger the safety of the train he shall immediately control the speed of the train and bring it to a stop at first convenient place carefully and without a jerk. Driver shall restart the train in consultation with the guard, only after the cyclone, storm or strong wind abates and it is considered safe to proceed.

- iv. The Guard and Driver of the train in co-operation with the Railway Staff travelling the train shall try to see that the doors and windows of the coaches are kept open by the passengers to allow free passage of the wind through the coaches.

20.2.3 Action by SSE/SE(P.Way):

Monsoon Patrolling:

- i. **Introduce monsoon patrolling:** Advise monsoon patrolman/watchman and gang mates to be extra vigilant. Deploy watchmen at vulnerable locations and bridges. Continue monsoon patrolling by trolley beyond 48 hours of warning.
- ii. **Guarding Vulnerable locations:** Stationary watchman should be posted round the clock at every nominated location.
- iii. **Inform intermediate Gang mates:** Send two gang men in either side sections to inform all gang men and gang mates in the section about the cyclone/dangerous wind velocity.
- iv. **Gang Patrol should be carried out :** by Mate and Gang men as per instructions Contained in Para 1001(3) of P.Way Manual.

20.2.4 Anemometers Indications:

In case, where Anemometer is installed at one of the station, if it is indicating wind velocity higher than the danger level as prescribed by the special instructions, the SM shall take following action.

- i. The SM shall not start or allow the movement of trains through his station and also not grant line clear to the trains waiting at the adjacent station for his station.
- ii. He shall resume normal running of trains in consultation with the section controller and the SM at the adjacent station after the wind velocity is again below the danger level as prescribed by the special instructions.

20.2.5 Action by Traction Power Controller:

Arrange manning all SSP/SP and OHE depot and alert all staff. Keep Tower Wagons in readiness.

20.3 Categorization of Alerts:

A Standard Operating Procedure has been prepared for alerts of events of different types and identifies the situations when alerts are to be sent by the Integrated operation center, Ministry Home affairs.

Specific hazards have different categories of alerts. Accordingly, a uniform system has been devised by categorizing each type of alert in stages - Yellow, Orange and Red.

20.3.1 Action Plan for Communication of Alert Messages:

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

20.3.2 The Action Plan for Alert Messages lays down as under:

- i. All concerned Ministries/Departments/Organizations/Agencies will report events to Integrated Operation Centre- IOC, Ministry of Home Affairs-MHA
- ii. While generating and transmitting alerts to IOC, MHA, the concerned agency, will indicate the category of the event as well as its corresponding stage (Red/Orange/Yellow)
- iii. In Railways contact various nodal organization are as under:-

Natural calamities and other Crisis situations	Nodal Organization
Avalanches	Defence Research & Development Organization
Tsunami	Department of Ocean Development
Landslides	Geological Survey of India
Cyclone	India Meteorological Department
Earthquake	India Meteorological Department
Flood	Central Water Commission
Railways	Ministry of Railways

20.3.3 Action on Division/Zones on Orange/Red Alert situations:

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

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

20.4 Monitoring / Reporting of Effects of Disaster:

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

20.5 Standard Operating Procedure (SOP) on Railways:**20.5.1 National Disasters:**

The Civil Engineering Department at the field level and on the Divisions gets information through advance warning sent by the respective Government Departments on the possibility of floods,

Cyclones, Earthquakes, Landslides etc. Depending on the gravity of the disaster/crisis/calamity expected the information would be passed on to Divisional Officers through the Emergency Control, which will act as the Incident Command System- ICS. Where train operations have to be suspended or regulated, the operating department would be suitably advised. After making the train regulation plan the divisional control would advise the commercial and security departments for management of the welfare of passengers. Alerts to the passengers would be issued through the PR Department of the Railway in the Print and Electronic Media.

The DRMs on the Divisions shall ensure coordination amongst the departments for ensuring running of train services (including relief special trains) as also relief arrangements for the passengers and for the Welfare of Railways own staff. Assistance of other Divisions and from the Zonal Railways would be taken through the Headquarter of the Zonal Railways (i.e. by involving the General Manager). Coordination with the IOC of MHA and NDMA/NDRF would be through the Emergency Control of each Zonal Headquarter.

20.5.2 Man-made Disasters:

Different forms of terrorism fall under the ambit of these disasters. A major role has to be played by the Security Department of the Railways who will coordinate with the State Government and when required the Para-military and other force. The Security Control of the Division will act as the ICS. The Headquarter Security Control will coordinate with the IOC of MHA.

A similar system would be followed as above in organizing regulation of train services by the operating department at the divisional, Zonal level and also in the Railway Board.

20.5.2 Vulnerable locations:

Vulnerable locations- Bridges									
Hazard Risk									
S N	Section	Locati on	Flood	Earth Quake	Land slide	Embank ment	Cutt ing	Vulne rable Bridg e	Remarks
1	Churchgate- Virar	4/3-4	Flooding	-	-	-	-	5	One patrolmen at the time of flooding.
2	Churchgate- Virar	4/5-6	Flooding					7	One patrolmen at the time of flooding.
3	Churchgate- Virar	14/3-4	Flooding					20	One patrolmen at the time of flooding.
4	Churchgate- Virar	34/17- 18	Flooding					66	One patrolmen at the time of flooding.
5	Churchgate- Virar	53/6-7	water flooding upto top flange					78	One patrolmen at the time of flooding.
6	Churchgate- Virar	56/10- 11	Flooding					82	One patrolmen at the time of flooding.
7	Churchgate- Virar	58/10- 11	Flooding					83	One patrolmen at the time of flooding.
8	Virar-Surat	69/08- 10				embank ment slip		92	Bank height more than 4.0 mtr
9	Virar-Surat	82/6-8	water level reaches at DL					115	Major Bridge
10	Virar-Surat	148/6- 10				High Emba nkme nt height betwe en 3.0m to 5.0m		228	Major Bridge
11	Virar-Surat	162/26 -28						263	Major Bridge
12	Virar-Surat	163/4- 6						264	Major Bridge
13	Virar-Surat	168/14 -24						275	Major Bridge
14	Virar-Surat	177/18 -26						287	Major Bridge
15	Virar-Surat	188/26 -38						313	Major Bridge

16	Virar-Surat	200/10-22						332	Major Bridge
17	Virar-Surat	202/4-6						336	Major Bridge
18	Virar-Surat	213/29-31						358	Major Bridge
19	Virar-Surat	214/3-11						359	Major Bridge
20	Virar-Surat	218/0-11						368	Major Bridge
21	Virar-Surat	219/3-5						369	Major Bridge
22	Virar-Surat	219/11-13						370	Major Bridge
23	Virar-Surat	220/7-9						372	Major Bridge
24	Virar-Surat	230/0-1						387	Major Bridge
25	Virar-Surat	238/5-11						400	Major Bridge
26	Virar-Surat	238/29 to 239/1						401	Major Bridge
27	Virar-Surat	240/11-15						405	Major Bridge
28	Virar-Surat	242/17-19						411	Major Bridge
29	Virar-Surat	249/11-21						417	Major Bridge
30	Udhna-jalgaon	18/24-26	heavy water flow on monsoon					17	At the time of heavy rains
31	Udhna-jalgaon	34/10-11						31	At the time of heavy rains
32	Udhna-jalgaon	72/14-16						76	At the time of heavy rains
33	Udhna-jalgaon	74/28-30						81	At the time of heavy rains
34	Udhna-jalgaon	111/15-16						125	At the time of heavy rains
35	Udhna-jalgaon	118/15-17						134	At the time of heavy rains
36	Udhna-jalgaon	134/10-134/11						158	At the time of heavy rains
37	Udhna-jalgaon	148/41-48/6						174	

Vulnerable locations- Track

S N	Section	Location km from to km	Flood	Earthquake	Land slide	Embankment	Cutting	Vulnerable Bridge	Remarks
1	Churchgate-Virar	0/8 to 1/15	Water logging						during high tide period and heavy
2	Churchgate-	2/18 to	Water						

	Virar	4/11	logging						rains when water touched sleeper top
3	Churchgate-Virar	8/10 to 10/1	Water logging						-
4	Churchgate-Virar	10/11 to 12/5	Water logging						-
5	Churchgate-Virar	13/1 to 13/3	Water logging						-
6	Churchgate-Virar	14/7-14/20	Water logging						-
7	Churchgate-Virar	22/13-23/4	Water logging						-
8	Churchgate-Virar	55/4-56/3	Water logging						-
9	Churchgate-Virar	61/28-62/0					cutting 10m		
10	Virar-Surat	147/23-147/27				steep embankment			Rain cut in year 2018
11	Virar-Surat	151/25 - 151/29				embankment 3.0m			Breaches occurred during the year 2018
12	Virar-Surat	173/0-175/7	flooding				High cutting 3.0		Flooding of track every year
13	Virar-Surat	181/12-182/0	flooding						Due to heavy rain
14	Virar-Surat	189/12 - 189/20				embankment 5.6m			During year 2013 due to heavy rains bank was slip
15	Virar-Surat	196/20-198/6	flooding						Flooding of track during 2013 due to heavy monsoon
16	Virar-Surat	240/19 - 240/23	flooding						Failure of embankment due to heavy rains in 2013
17	Udhna-Jalgoan	144/3-144/10				cutting (boulder fall over track)			-
18	Udhna-Jalgoan	163/13-165/8				cutting (boulder fall over track)			-

CHAPTER- 21

EARTHQUAKE : DISASTER MANAGEMENT

21.1 Impact of Earthquake on Railway systems:

21.1.1 Damage to Track:

- i. Track alignment
- ii. Earth formation
- iii. Shrinkage of track
- iv. Bridges/girders/piers
- v. Trees/structures obstruction in track
- vi. Building or any infringement.

21.1.2 Damage to Service building:

- i. Control
- ii. ASM Office, relay rooms, cabins & gate lodge.
- iii. SSP/SP
- iv. Office building
- v. Residential building

21.1.3 Damage to Signal & Telecommunication:

- i. Signal post
- ii. Microwave tower
- iii. Telephone post and wires
- iv. Cables

21.1.4 Damage to OHE:

- i. OHE masts
- ii. Portals
- iii. TPC
- iv. Tower shed

21.1.5 Damage to C&W sick line & TRS Shed:

- i. Pit lines
- ii. Sick lines/Shed structure.

21.2 Action to be taken in case of Earthquake:

As soon as information is received about severe earthquake in the control office from any sources, the following action is to be taken -

21.2.1 Action by Operating Branch:

- i. Stop all trains.
- ii. Inform P.Way, S&T and Traction Power Supervisors for checking track, bridges, points, signals & OHE on light engine/push trolley/Motor trolley in each block section of affected areas, through respective controls.
- iii. Inform Civil Authorities regarding any unusual.
- iv. Arrange stock and power for moving relief /restoration material.
- v. Arrange additional Operating staff i.e. ASMs, Points men, Guards and Cabin men from unaffected areas.

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- vii. Inform Civil Authorities regarding any unusual.
- viii. Arrange stock and power for moving relief /restoration material.
- ix. Arrange additional Operating staff i.e. ASMs, Points men, Guards and Cabin men from unaffected areas.

21.2.2 Action to be taken by Engineering Branch:

- i. All P.Way Supervisors including PWI, IOW, BRI, Gang men, Key men and other staff should report to nearest Station Masters who in turn will repeat to control.
- ii. Checking of track & bridges -
- iii. A team of Gang men, Key men and BRI should be sent to either side of the each block section for checking the track structure and bridges.
- iv. Protection to damaged site - Checking team should be suitably instructed to protect any damaged to track structure or bridge and service/residential building in the section and arrange for repairs as per requirement.

21.2.3 Action by S&T Branch:

- i. Restoration of alternate communication -

It is most likely that overhead/cable communication may affect during earthquake. Therefore one of the alternate communications - Microwave/RE cable/Optical fiber cable or VHF communication must be made through between control and stations.

- ii. Alternate power supply -

It is also expected that power supply may disrupt for a longer period. Therefore, alternate power supply for communication equipment which can last for longer period should be Arranged.

- iii. Assessment of damage -

CSI/SI and ESM/MSM must be available at the stations. After checking all the S&T installation, detail should be given to SI Control in regard to damage and additional requirement of men and material.

21.2.4 Action to be taken by Electrical TRD Branch:

- i. On receipt of information about earthquake, OHE supply on the affected section be shut down at once. All the sections in UP & DN directions should be checked thoroughly by tower wagon. When tower wagon on run for checking, it should run at the restricted speed so that it can be stopped before any obstruction.
- ii. After checking each section, feed-back is to be given to TPC who in turn will advise the position to Dy.TNL.

21.2.5 Action to be taken by Electrical(P) Branch:

In case power supply fails, DG set should be arranged at the important Installations like control, stations etc. as per the requirements.

21.2.6 Action to be taken by Commercial Branch:

- i. Regular announcements – for information of passengers explaining the clamity and affect on train running.
- ii. Emergency enquiry counters – to be opened at major stations and affected stations with DOT Phone/Cell Phone facility.
- iii. Facilities stranded passengers like drinking water, catering etc. are to be provided at stations where trains are controlled.
- iv. Additional windows for refunds.

21.2.7 Action to be takenby Mechanical branch:

- i. Be ready for TXR examination of relief coaching/goods rolling stock.
- ii. Arrange diesel power and crew as per requirement in case OHE fails.

21.2.8 Action to be taken by Personnel Branch:

- i. Form relief cell consisting of CWI/WI and staff to assess losses and damages of station s/colony wise.
- ii. Co-ordinate for assistance & relief with trade unions, Mahila Samities, NGO to speed relief
- iii. Send assessment report to HQ.

21.2.9 Action to be taken by RPF Branch:

- i. Help Railway Official/employees in relief work at stations and colonies.
- ii. Protect Railway stations yards and all vital installations and restrict the entry of the outsiders.
- iii. Render necessary assistance to the victimized person to safe the human life.
- iv. Help Railway Official/employees in relief work by deputing RPF staff at stations and colonies.
- v. Keep close co-ordination with civil Police and District Administration.

CHAPTER- 22

MANAGEMENT OF CHEMICAL (TERRORISM) DISASTERS

22.1 Introduction:

22.1.1 A terrorist attack involving chemical agents differs from a normal terrorist attack as it results in specific effects on health and can cause fatal injuries, create panic, and affect the morale of the community. The targets of terrorists include market places, densely populated areas, public functions, important dignitaries, water and electricity supplies, restaurants/food plazas, malls, places of entertainment, busy railway stations in metros and critical and sensitive military, civil and economic institutions.

22.1.2 Chemical terrorism is an act of violence to achieve professed aims using chemical agents. These chemical agents include poisonous gases, Liquids or solids that have a deleterious effect on the biotic and non -biotic environments. Due to the relatively easy available of hazardous chemical in major Accident Hazard units ,storages and during transportation, terrorists can procure chemicals or even try to sabotage the facilities or transport vehicles as it offers them an easier and often more catastrophic method of anti-national activity. The mode of dispersal used for chemical agents would range from dissemination of aerosolized material to contamination of food and water.

22.2 NDA's Guidelines:

The possibility of a chemical terrorism attack can be minimized by spreading general awareness and building the capacity of the community and governmental and non-governmental organizations.

22.2.1 The approach followed in the NDMA's Guidelines lays emphasis on:

- i. Security and surveillance measures for installations manufacturing /using / storing chemicals.
- ii. Strengthening intelligence regarding the movement of chemicals.
- iii. Preparedness for counter-terrorism measures:
 - a. Issues regarding the safety of chemicals and risk reduction strategies etc.
 - b. Strengthening of response through rescue and emergency medical resources.
 - c. Preparedness of all emergency functionaries in terms of protection, detention decontamination, decorporation, capacity building and infrastructure development.
 - d. Community -centric mechanism for the management of chemical (terrorism) disasters.

22.3 CTD Preparedness Plan:

22.3.1 Implementation of the Guidelines at the national level shall begin with the preparation of a detailed action plan (involving programmes and activities) by the nodal ministry (MHA) that shall promote coherence among different CTD management practices and strengthen mass casualty management capacities at various levels. The concerned ministries like MoD ,MoEF ,Ministry of Railways (MoR),MoL & E (through Employees' State Insurance Corporation (ESIC) MoA etc. will also prepare their respective CTD preparedness plan as a part of all hazard DM plans. The Railways has an important role in the management of mass casualties in the event of national calamities, they should also cater for developing additional capacities besides meeting their own requirements in their preparedness plan.

22.3.2 Railway board has issued guidelines on precautions in handling, storage and transportation of chemicals. These are to supplement the guidelines laid down in the Red Tariff. The Commercial Department may keep the RPF official updated on the goods sheds which handle Hazchem so that adequate security systems can be strengthened. This may be a part of the Divisional DM Plans.

22.4 Preparedness for Emergency Response:

Preparedness for an emergency response at the incident site requires protection, detection and decontamination. RPF and the Medical Department have a role to play in the relief and mitigation efforts. SOPs are required for all the emergency responders working under the overall supervision of the incident commander. This may be identified in the zonal DM Plan as the DRM of the respective division on the Railways where CTD has occurred. SOPs will be included for field decontamination. A well-orchestrated medical response to CTD will be possible only by having a command and control function at the divisional level by the Medical Department. The CMO/CMS will be the main coordinator for the management of CTD.

22.5 Training for the Responders:

The Medical Department of the Railways has little or no expertise in the effects of different chemicals. This needs to be gradually developed initially in a skeleton number (one or two) of Doctors and Para-medics in each Divisional Railway Hospital through training.

22.6 Comments on the Indian Railways Disaster Management Plan by NDMA:

Action plan by Railways to prevent Chemical (Terrorism) Disaster at crowded railway stations and yards should be worked out. The Plan should include immediate response capability of Railways, before the specialist forces arrive, to manage such a disaster.

CHAPTER- 23

MANAGEMENT OF NUCLEAR AND RADIOLOGICAL EMERGENCY (DISASTER)

23.1 Nuclear / Radiological Emergency :

Any radiation incident resulting in or having a potential to result in exposure and/or contamination of the workers or the public in excess of the respective permissible limits can lead to a nuclear/ radiological emergency.

23.1.1 After due consideration of the nature and consequences of the nature and consequences of all the possible scenarios, these radiological emergency have been broadly classified into the following five categories.

- i. An accident taking place in any nuclear facility of the nuclear fuel cycle Including the nuclear reactor, or in a facility using radioactive sources, leading to a large-scale release or radioactivity in the environment.
- ii. A 'criticality' accident in a nuclear fuel cycle facility where an uncontrolled nuclear chain reaction takes place inadvertently, leading to bursts of neutrons and gamma radiations.
- iii. An accident during the transportation of radioactive material.
- iv. The malevolent use of radioactive material as a Radiological Dispersal Device by terrorists for dispersing radioactive material in the environment.
- v. A large-scale nuclear disaster, resulting from a nuclear weapon attack (as had happened at Hiroshima and Nagasaki) which would lead to mass casualties and destruction of large areas and properly.

23.1.2 Normally, nuclear or radiological emergencies (referred to in points (i) to (iv) above) are within the coping capability of the plant/facility authorities. A nuclear emergency that can arise in nuclear fuel cycle facilities, including nuclear reactors, and the radiological emergency due to malevolent acts if using Radiological Dispersal Devices are the two scenarios that are of major concern. The impact of a nuclear disaster (scenario at (v)) will be well beyond the coping capability of the local authorities and it calls for handling at the national level.

23.2 Vulnerability of Nuclear Facilities:

23.2.1 Identification of a rail network close to a nuclear facility needs to be done by the zonal railways. As regards the vulnerability of various nuclear fuel cycle facilities to terrorists attacks, these facilities have elaborate physical protection arrangements in place to ensure their security. The structural designs of these facilities ensures that even in the event of a physical attack, the structural barriers prevent the release of any radioactivity outside the plant area itself and hence the public are not likely to be exposed to radiation.

While their radioactive strength is in itself a deterrent to pilferage, the radioactive sources can still be stolen and used in a Radiological Dispersal Device or Improvised Nuclear Device. Essentially, a Radiological Dispersal Device is a conventional explosive device in which the radioactive material has been so added that, on its being exploded, there would be dispersal or radioactivity in the environment.

23.2.2 A Radiological Dispersal Device is not a Weapon of Mass Destruction. Normally, the use of a Radiological Dispersal Device by itself would not result in fatalities due to radiation. The fatalities, if any, would primarily be due to the explosion. However, it may contaminate a reasonably large area, besides its main potential of causing panic and disruption.

23.2.3 Accidents during the transportation of radioactive materials are of low probability due to the special design features of the containers in which they are transported and special safety and security measures (to take care of all possible threats/eventualities, including the threat from misguided elements) which are laid down to be followed during actual transportation.

23.2.4 A network of 18 Emergency Response Centers has presently been established by the Bhabha Atomic Research Centre to cope with radiological emergencies in the public domain, like transport accident, handling of orphan sources, explosion of Radiological Dispersal Devices etc. The task of these Emergency Response Centers is to monitor and detect radiation sources, train the stakeholders, maintain adequate inventory of monitoring instruments and protective gear, and provide technical advice to first responders and local authorities.

CHAPTER- 24

Tsunami

24.1 What is a Tsunami ?

A tsunami (from Japanese: "harbor wave") is a series of enormous ocean waves caused by the sudden displacement of a large volume of water. It is NOT a single wave but usually a train (series) of waves that can travel across entire ocean basins at speeds up to **800 km/h (500 mph)** in deep water.

24.2 Main Causes of Tsunamis :-

Cause	Percentage of tsunamis	Example
Undersea earthquakes	~80–85%	2004 Indian Ocean (Sumatra), 2011 Japan (Tōhoku)
Underwater landslides	~5–10%	1998 Papua New Guinea
Volcanic eruptions	~4–5%	1883 Krakatoa, 2022 Hunga Tonga
Meteorite/asteroid impacts	Very rare	Prehistoric events
Coastal landslides (above water falling into sea)	Rare	1958 Lituya Bay (Alaska) – tallest recorded wave 524 m

Most countries with coastlines at risk have **Tsunami Warning Systems** operated by national agencies and coordinated internationally.

24.3 Types of Official Alerts (standard terminology used worldwide):-

A tsunami is a series of giant waves triggered mainly by undersea earthquakes. Warning systems issue Warnings, Watches, Advisories, but natural signs (earthquake + receding sea) are often the fastest alert. The main danger is not just the wave height but the massive flooding, violent currents, and debris that can destroy entire coastal communities within minutes.

Alert Level	Meaning	What you should do immediately
Tsunami Warning	Strong tsunami expected – dangerous waves likely within hours	Evacuate coastal and low-lying areas IMMEDIATELY to high ground
Tsunami Watch	Tsunami is possible but not yet confirmed	Prepare to evacuate, monitor updates
Tsunami Advisory	Strong currents or waves dangerous to swimmers/boats, but no major inundation expected	Stay out of water and away from shore
Tsunami Information Statement	Minor tsunami or no threat – just informational	No action needed

Natural warning signs (if you are at the beach and no official alert yet):

Strong or long earthquake felt near coast → treat as warning

Sea suddenly recedes far out (exposing seafloor) → “the sea is sucking back”

Loud roaring sound from the ocean

→ If you notice any of these, run to high ground immediately – do not wait for official warning

.If you ever hear a tsunami warning: Move inland and uphill immediately – every minute counts.

24.4 Effects and Impacts of a Tsunami:-

Category	Effects
Direct wave impact	Walls of water 5–40+ meters high smash into coast at 30–50 km/h; destroys buildings, ships, cars
Inundation/flooding	Seawater floods inland hundreds of meters to several kilometers, turning land into temporary sea
Strong currents	Even small tsunamis create deadly currents that sweep people and debris out to sea
Debris impact	Floating cars, trees, houses become battering rams
Saltwater contamination	Destroys farmland, freshwater sources, infrastructure for years
Human loss	Drowning is the main cause of death; 2004 Indian Ocean tsunami killed ~230,000 people
Economic damage	2011 Japan tsunami caused ~\$360 billion in damage (most expensive natural disaster ever)
Environmental	Erosion, destruction of coral reefs, mangroves, wildlife

24.5 Deadliest Tsunamis in History (selected):-

Year	Location	Deaths (approx.)	Max wave height
2004	Indian Ocean (Sumatra)	227,000+	30–50 m
2011	Tōhoku, Japan	~20,000	40.5 m (run-up)
1755	Lisbon, Portugal	10,000–100,000	~15–20 m
1883	Krakatoa eruption tsunami	36,000	40 m
2022	Hunga Tonga volcano tsunami	10+ direct	15–20 m

24.6 Tsunami Action Plan – What to Do Before, During, and After a Tsunami:-

a. Before a Tsunami (Preparation – Do this Now if you live/work near the coast):-

Action	Why it saves lives
Know if your area is in a tsunami zone	Check official tsunami hazard maps (government websites)
Know the evacuation routes and safe zones	Signs usually say “Tsunami Evacuation Route” → follow them
Identify high ground ≥ 30 m (100 ft) above sea level or ≥ 2 km (1.2 miles) inland	This is usually safe from almost all tsunamis
Prepare a “Go Bag” (3–7 days)	Water, food, medicines, documents, phone charger, cash, whistle
Have a battery/solar/hand-crank radio	Official warnings continue even if power/phone fails
Secure or move boats to deep water	Boats left in harbor are destroyed and become deadly debris
Teach family the rule: “Earthquake → Drop, Cover, Hold → then RUN to high ground”	Many tsunamis arrive within 5–30 minutes

b. When a Tsunami is Coming (The Moment You Get the Alert):-

Situation	Immediate Action (You have minutes!)
Official Tsunami Warning is issued	→ Leave the beach/coastal area IMMEDIATELY
You feel a strong or long earthquake near the coast	→ Do NOT wait for official warning → Go to high ground NOW
You see the sea suddenly pull back very far (exposing reef/fish)	→ This is nature’s warning → RUN inland/uphill immediately
You hear a loud roaring sound from the ocean	→ Run to high ground

Golden Rule: “If it feels wrong or looks wrong – GO HIGH and GO NOW.” Do NOT go to the beach to watch or take photos.

C.- During the Tsunami (If you could not evacuate in time):-

Action	Reason
Get inside a tall (≥ 4 –5 stories), strong reinforced-concrete building	Some modern buildings survive the wave
Climb as high as possible (roof if safe)	Waves lose power with height
Grab something that floats (door, cooler, life jacket)	If swept away, you can stay afloat
Hold on to something solid	Currents are extremely violent
Protect head and curl into a ball if in water	Reduces injury from debris

D. After the First Wave (The danger is NOT over!):-

Important Facts	Action
Tsunamis come in waves – the 2nd, 3rd, or even 10th wave is often bigger	Stay on high ground for at least 8–12 hours or until officials say “All Clear”
Water may rush back out to sea with deadly force	Do NOT go down to look – many people die on the way back
Roads, bridges, and buildings may be destroyed	Wait for rescue teams
Contaminated water and debris everywhere	Wear shoes, gloves; avoid wading in floodwater

E. 24.7 Quick One-Page Family Tsunami Plan (Print & Keep)

1. If earthquake → Drop, Cover, Hold On → then run to high ground immediately
2. If official warning → Evacuate NOW (car or on foot)
3. Meeting point: _____ (name the exact high place)
4. Go-bag location: _____
5. Out-of-area contact person: _____ Phone: _____
6. Never go back until authorities say “ALL CLEAR” (may be 12+ hours)

Remember: A tsunami can arrive in 5–30 minutes (local) or several hours (distant). Speed and height on land are unpredictable. One minute of delay can cost your life.

Stay safe – prepare today, survive tomorrow

24.8 Effects of Tsunami on Railways:-

Tsunamis can completely destroy or severely damage railway infrastructure, especially in coastal areas. Here are the real-world impacts observed in major tsunamis:

Component	Typical Damage from Tsunami
Tracks	Washed away, twisted, buried under debris or sand
Bridges	Swept away entirely or collapsed by wave force and debris
Embankments	Eroded or completely removed
Stations & Platforms	Buildings demolished, platforms buried, equipment ruined
Signals & Electrification poles	Snapped, cables torn, signaling system dead
Trains in motion or parked	Derailment, overturned, carried hundreds of meters, or washed into sea
Tunnels (coastal)	Flooded with seawater and debris (if entrance is low)

Deadliest railway incident ever caused by a tsunami: 26 Dec 2004 – Sri Lanka “Queen of the Sea” train (Matara–Colombo coastal line) → Overturned by the second wave → ~1,600–1,900 deaths (single deadliest train disaster in history).

24.9 Action Plan for Railways in Case of Tsunami:-

A. For Railway Authorities / Control Rooms (Official Procedure)

Phase	Action	Time Goal
Earthquake detected (local or distant)	Automatic sensors or warning from national tsunami center → Alert all coastal divisions	Within 3–5 minutes
Tsunami Warning received	IMMEDIATELY STOP all trains on coastal sections (even if hundreds of km away in some cases)	Within 5–10 minutes
Issue “Absolute Block”	No train permitted to enter vulnerable coastal sections	Immediate
Move trains to safety	Run trains inland or to higher elevation sections if time permits	Before expected arrival time
Evacuate passengers from coastal stations	Use public address, station staff, police to move people to high ground	Immediate
Switch off traction power (electric lines)	Prevent electrocution when water hits overhead wires	Immediate
After “All Clear” (usually 8–12 hours)	Engineering teams inspect every meter of track, bridges, signals before resuming	Only after physical check

B. For Train Drivers / Guards (If a train is on a coastal section when warning comes):-

1. Stop the train immediately (even between stations) if safe to do so.
2. Inform control room.
3. Detrain all passengers quickly.
4. Move everyone perpendicular to the coast (inland) to high ground ≥ 30 m elevation or ≥ 2 km inland.
5. Do NOT try to outrun the tsunami by train – water travels faster than most trains on coastal tracks.
6. Abandon the train and save lives – the train can be replaced, people cannot.

7. C. For Passengers on a Train Near the Coast :-

- If you feel a strong earthquake → expect tsunami.
- If train stops suddenly and crew ask you to get off → follow immediately without question.
- Take only small valuables; leave luggage.
- Run inland and uphill – do not run along the tracks (tracks are usually the lowest point).
- Help children, elderly, and disabled persons.

24.10 Summary – Railway Tsunami Rule-of-Thumb-“Any earthquake strong enough to make it difficult to stand + coastal track → Stop all trains, evacuate passengers to high ground immediately.”

Never restart trains until tracks are physically inspected after official “All Clear”.

CHAPTER- 25

CRISIS MANAGEMENT PLAN (CMP)

25.1 INTRODUCTION:

Indian Railways (IR) are the principal mode of transport of the country. For the last more than 150 years, IR has played a vital role in the overall development of the country and national integration. IR has a vast network of more than 64,600 route kilometers moving an average 2.67 million tones of freight and 23 million passengers per day. In any national level crisis, where major transport requirements are envisaged, Indian Railways will have to play an important role. However, Indian Railways can also get involved in a Crisis situation having national level repercussions needing assistance for other ministries/departments of Govt. of India.

25.2 This Crisis Management Plan deals with National level crisis situations which are as under:

25.2.1 All Indian Railway Strike:

Ministry of Railways is the nodal ministry. All the Zonal Railways have 'Strike Scheme'.

25.2.2 Terrorism/Security related Crisis

Railways will take all necessary steps/actions for crisis concerning its properties and Ministry of Home Affairs will step into lead role for the under-mentioned Railway affecting probable crisis for which it has been identified as nodal Ministry of CMP of Cabinet Secretariat. A compendium of SOP has been issued vide Security Dte's office letter No.2009/Sec(Spl)/2002/28 dt.2.2.2010.

25.2.3 Natural Factor(s) related Crisis leading to traffic disruption:

In the event of natural disasters affecting and rail network as well, whereas MHA as the nodal Ministry for Management of natural disasters would coordinate with various ministries

(including Railways) for transportation of relief/rescue materials. Railways will ensure that its transportation network is repaired/restored in shortest possible time. NDMA/NDRF plays very important role in case of crisis due to Natural factors.

25.2.4 Major Train Accidents:

Major Train Accidents include mishaps like collisions, derailments, fire in trains, road vehicles colliding with trains at level crossings, etc. with serious repercussions in terms of heavy loss of human life or injury, damage to railway property or interruption to rail traffic of laid down threshold levels and values. In other words, Major Train Accidents 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. The details guidelines for managing railway accidents are mentioned in Accident Manual of Western Railway. The Accident Manual of Railways bring together in a comprehensive manner all the procedures, rules, regulations for dealing with train accidents.

25.3 Following are the important duties at the time of accident:

- i) All railways staff whether on duty or otherwise, should involve themselves in rescue and relief.
- ii) Senior most officers at the site of accident is the in-charge of rescue/relief operations at the site.
- iii) There should be utmost speed in rushing medical and other relief to the site of accident.
- iv) There should be utmost care, consideration and courtesy extended to the passengers involved in the accident.
- v) Adequate and swift arrangements should be made for food, drinking water etc to the affected passengers.
- vi) Employee responsibilities at the site should be clearly defined. This helps to prevent confusion.
- vii) Quick transmission of information, particularly details of dead and injured, should be ensured Sufficient number of telephone lines in General Enquiry/Helpline numbers should be provided for General Public).
- viii) Ensure proper preservation and care of the dead.
- ix) Ensure security of passenger's luggage.
- x) Timely dissemination of information to passengers of evacuation arrangements to relieve panic and create re-assurance.
- xi) Ensure proper liaison with Civil Administration and press.
- xii) Ensure that clues are preserved and restoration operations are well planned and swiftly executed.
- xiii) In the event of trains being stranded at a station due to break down/agitation, proper announcement should be made and Commercial Department should take care of the convenience of stranded passengers.

Chapter – 26

MANAGING CROWDS

26.1 Guidelines by NDMA:

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

26.2 Salient features of NDMA guidelines:

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

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

26.3 Crowd control and management:

For effectiveness RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities. Chapter 10 (Maintenance of Public Order and Tranquillity) of the Criminal Procedure Code (Cr.P.C.) Part-A deals with 'Unlawful Assemblies'. Legal procedures are outlined in Sections 129 to 132 of the Cr.P.C. for dealing with Unlawful Assemblies. These provisions empower Members and Officers of Armed Forces (RPF is an Armed Force of the Union) to deal with Unlawful Assemblies.

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

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 District Magistrate (Dy. Commissioner) or the Civil Police (Senior Superintendent of Police) 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 flow of the passenger is very important to plan destination wise running of special trains. It may be kept in mind that often the Inward and outward passenger traffic is not equal; there are wide variations. Further the inward rush comes in a staggered and spaced interval; the outward rush goes back at one go. It would be essential for the Zonal Railway or Division to impress upon the State Government (or the District Magistrate) in writing of 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.

26.4 Role of responsibility of Zonal Railways/Divisions:

Depending upon the past experience, Zonal Railways/divisions should identify events of mass gathering over their system. The events can be of periodic in nature or onetime events where mass gathering of passengers is expected in the station which is beyond the normal capacity that can be handled at that station.

Concerned Zonal Railway/division should have a close coordination with the organizers and law enforcement agencies to understand crowd arrival and departure, their numbers for each such event. Railway administration should identify the threats, assess the risk and plan accordingly. Based on the past experience, a coordinating officer should be nominated for better planning and execution crowd management at the station. He should be designated as incident commander and shall be overall in charge of that particular station. He shall be assisted by staff drawn from the respective departments to discharge his/her functioning.

26.5 Crowd control and Management of rush at Railway Stations:

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

The car and other vehicle parking facility at a station may be discontinued; sale of Platform Tickets can also be banned for short period of time. RPF and GRP personnel deployed on each platform will monitor crowds and rush build up in the circulating

areas, booking windows, station platforms and mainly on the FOBs. Special teams of commercial staff will liaise with the RPF/GRP and relay 2/4 hourly position to a centralized location viz. commercial control who will advise the need for running of special trains to specified destination to the operating departments control room.

26.6 Action to be taken for crowd management on western railway:

Adequate deployment of RPF & GRP personnel to be deployed at circulating area, holding area, platforms, booking window, FOBs, extras to monitor the crowd and rush build up. The following actions should be planned to monitor and manage the crowd:

- There should be separate entry and exit for smooth movement of crowd. It should be ensured that stairs should be used in one direction i.e. ingoing & outgoing crowd should not share the same stairs.
- The flow of crowd should be in unidirectional. There should be no crisscross movement of crowd to avoid stampede like situation.
- Emergency exits should be planned in advance. Preventive protocols, when laid down footfalls defined separately for important stations become extraordinarily high, as during Melas or other exceptional situations, should be prescribed.
- A holding area should be prepared either in Circulating area or outside station building premises, to monitor access control and movement of crowd.
- Sale of platform tickets should be banned during peak days in order to control unwanted crowd.
- Depending on the magnitude of the event the car & other vehicle parking at stations should be discontinued during the peak days.
- The berthing of the train should be planned well in advance and all relevant information should be displayed in holding area, circulating area and at important visible places in the station building. The empty rakes should be placed on platform in locked condition, so that the passengers waiting on the platform do not run / rush to enter in open coaches.
- There should be no change in platform under any circumstances in order to avoid confusion and stampede like situation. Platform should be designated and earmarked for departure of special trains. Regular announcement should be made before placement of empty rake on the platform.
- Ropes, barricades, queue makers etc. should be used extensively at platform entrances, circulating area, FOBs etc. for smooth movement of the crowd.
- Intelligent video analytics should be used in CCTV surveillance to signal crowd density within station premises when it exceeds a prescribed limit. This will enable RPF personnel and railway authorities to get timely information when heavy crowd builds up within station premises and plan follow-up action. Pictures stored on CCTV system will be of immense help in identifying miscreants and in ensuring effective legal action.
- During peak days, parcel handling including loading, unloading and stacking on platforms should be stopped. The loading / unloading may be done in yard / side areas in case of emergency. Movement of handcarts and thelas should be banned.
- The entire station premises should be well lit / illuminated so that miscreant activities are curbed.
- A mini control room which will also act as a Emergency Response Centre should be established close to the premises / area where the crowd is to be monitored. The representatives of RPF, GRP / Police, Commercial, Electrical, Mechanical, Medical and Operating department should monitor the Control room round the clock.

26.7 The Emergency Operations Centre should work as:

- This Centre will by far possible, be near to the vicinity of the area it is going to control.
- The Centre should be in a safe area where it is not affected by any type of disasters, both man-made and natural, so that it can exercise control over its tasks under all circumstances.
- A Grid Map of the entire area under jurisdiction will be prepared to facilitate accuracy in pinpointing the troubled area and activate appropriate response.
- This map will contain all relevant data like position of volunteers / police, Ambulance, fire services, Medical emergency room, ticket location etc.

- All the staff involved in this activity will have a particular call sign and the grid map person. This will give them leverage in pre-empting a particular activity that ensures safety of the crowd or if they are nearest to the spot. It will aid them in initiating corrective action and feedback to the control centre.
- This Centre will exercise positive control over the crowd movement to and from the event venue.
- This Centre will not act under pressure of any sort from any individual or agency requesting speedy access to event / venue. It will exercise total discretion in allowing the same only if doing so may lead to safety and security concerns.
- The Centre will be the hub for information flow about the crowd movement both inward and outward.
- All emergency support services will be coordinated from this Centre.
- This Centre will exercise direct control over the already parked ambulances, fire services and regulating their movement, in and out of the disaster prone area.
- This Centre will pre-validate and decide the level & distance of accessibility of emergency services in the disaster area to avoid congestion and quick turnaround, thereby speeding up movement of aid and vehicles.
- The Centre will also be responsible for validating the main routes for crowd movement and alternative routes (marked as standby for entry and exit.)
- The Centre will exercise / regulate the positioning of food stalls, public facilities, watering points, rest areas and display systems for easing the flow of crowd and their anxiety level.
- The entire communication network i.e. the public address system, wireless setup, display system etc. will be controlled by a dedicated team under the supervision of one competent person, who will in turn report to the Incident commander.

26.8 Duties of Security Department:

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

26.8.1 Liaison with Civil Police:

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

26.8.2 Crowd Management:

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. Railwaymen who try to undertake any kind of rescue and relief work become victims of mob fury.

- i. Cordon off the site and prevent unauthorized entry of outsiders.
- ii. Segregate the area of accident by putting up temporary barriers using nylon ropes or any other makeshift device available at the scene so that outsiders do not disturb the site or hamper rescue operations.
- iii. These barriers should be at quite some distance away from the track, so that UCC, CAC and LCCs are inside the cordoned off area.

- iii. Provided barricade and ask for additional force to control crowd during VIP visit.

26.8.3 Protection of luggage:

- (a) Protect unclaimed luggage of passengers till these are duly taken over by commercial department for safe custody.
- (b) Unclaimed luggage of passengers should be isolated and stacked coach-wise, with proper labelling indicating coach no., from which recovered.
- (c) If possible, the cabin number inside the coach should also be indicated.
- (d) All such unclaimed luggage should be protected till they are handed over to claimants or taken over by commercial department.
- (e) Unclaimed luggage should be stored in a safe place, preferably, part of the same school building which is being used for preserving dead bodies.
- (f) These should be stored in separate rooms coach wise so that it is easy for relatives to identify.

26.8.4 Protection of railway property:

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

26.9 General:

- (i) RPF personnel should respond to any call for assistance to rescue victims and transport them to the nearest hospital.
- (ii) 3 – hourly Satraps will be updated by field personnel at the scene of incident to the RPF functionary in the UCC giving the latest situation.
- (iii) RPF Assistance Post will be established within the CAC so that people needing help can approach RPF.

26.10 Security arrangements Mock Drill:

Regular mock drill must be conducted to check the preparedness and iron out the deficiencies, if any, in the role of responsibility mentioned above.

Chapter – 27

Schedule of Power (SOP)

S.No.	Nature of Powers	PHOD/HOD	DRM/ADRM/CWM/ SAG Officers in Field Units	Divisional Officers, Extra Divisional Officers & Officers in Headquarters	REMARKS
1	2	3	4	5	6
97.	Disaster Management				
	(A) Procurement of additional lifesaving drugs from the market by Medical Officers at the site.	Full Powers	Full Powers	Full Powers	1. Full Powers if he is the only Medical Officer available on site. 2. Medical Officers to draw money from station collection. 3. Finance concurrence not required. <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.31
	(B) On the Spot payment to private Hospitals for treatment of injured.	Full Powers	Full Powers	Full Powers	1. Full Powers if he is the only Medical Officer available on site. 2. Medical Officers to draw money from station collection. 3. Finance concurrence not required. <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.32.
	(C) Cash imprest for ARMV in charges – for expeditious procurement of small items like fuel, food materials etc. at accident sites.	Full Powers	Full Powers	Full Powers	1. Full Powers if he is the only Medical Officer available on site. 2. This power to be implemented when the ARMV has to remain at the accident site for a longer period during exigencies. 3. Up to Rs. 5,000/- for food materials, fuel etc., <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.41
	(D) Purchase of items for ARME including First Aid Articles.	Full Powers	Full Powers	Full Powers	1. Only for emergency purchases and not for normal day to day requirements. <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.36
	(E) ART Equipment (HRE, HRD & 140 T cranes and other related equipment).	PCME / PHOD/ CHOD	Nil	SG/JAG	1. Finance concurrence is necessary 2. Constitution of Tender committee and acceptance as per tores/Works powers as applicable <i>Authority :-</i> Correction slip No.4 issued by WR vide letter No.G176/Item 97(E)MSOP 18/Part C/(Misc.Matters) dtd.29.01.2020
	(i) For planned procurement of the spares, consumables, and small tools.	CHOD Above Rs.25 Lakhs and up to Rs.2.5 Crores	Nil	above Rs.1.5 Lakhs and up to Rs.8 Lakhs. <u>Sr Scale</u> up to Rs. 1.5 lakhs	

S.No.	Nature of Powers	PHOD/HOD	DRM/ADRM/CWM/ SAG Officers in Field Units	Divisional Officers, Extra Divisional Officers & Officers in Headquarters	REMARKS
1	2	3	4	5	6
		<u>CRSE(F&O)</u> above Rs.8 Lakhs and up to Rs. 25 lakhs			
	(ii) for emergency repairs and purchase of spares incidental to such repairs.	<u>PCME/ CRSE(F&O)</u> Up to Rs. 1 Lakh per break down	Up to Rs. 1 Lakh per break down	Sr DME/ In charge of ARTs Up to Rs. 50,000/- per break down without finance concurrence	1. Finance concurrence is not necessary up to Rs. 50,000/- 2. Single quotation can be resorted to in case of Repair/ Spare from OEM/Authorised dealer 3. SrDME/In Charge of ART shall certify the emergency. 4. A register showing the details of expenditure incurred on each breakdown should be maintained. The overall ceiling limit for emergency repairs/purchases of spares should not exceed Rs.20 lakhs per annum Authority :- 1. Board's letter No.2018/Trans,Cell/Mech/SOP Corrigendum dtd.14.01.2019 2 .Correction slip No.4 issued by WR vide letter No.G176/Item 97(E)MSOP 18/Part C/(Misc.Matters) dtd.29.01.2020
	(iii) Scheduled overhauling/recondition g repairs to machines (Schedules not covered under Annual Maintenance contract) and for purchase of spare parts for this equipment.	<u>PCME</u> Full powers <u>CRSE(F&O)</u> Up to Rs. 50,000/- at a time.	Nil	Sr. DME/ In charge/ARTs Up to Rs. 30,000/- at a time. <u>DME/In charge of ART</u> Up to Rs. 10,000/- at a time.	1. Finance concurrence is necessary. 2. Subject to usual procedure of calling of tender/Quotation etc., being followed as per extant orders. Correction slip No.4 issued by WR vide letter No.G176/Item 97(E)MSOP 18/Part C/(Misc.Matters) dtd.29.01.2020
	(F) Hiring of vehicles for rescue and relief	Nil	DRM/ADRM- Full powers during	Branch Officers of Medical, Mechanical,	1. The expenditure can be met from cash imprest/Station earnings without any limitation.

C76



S.No.	Nature of Powers	PHOD/HOD	DRM/ADRM/CWM/ SAG Officers in Field Units	Divisional Officers, Extra Divisional Officers & Officers in Headquarters	REMARKS
1	operations.	3	4 accidents	5 <u>Operating, Safety and Commercial departments</u> Full Powers.	6 2. Efforts may be made to pool the utilization wherever possible. 3. Finance concurrence not required <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.30
	(G) Sanction of expenditure incurred during relief and rescue operations.	<u>All Mechanical, Medical, Commercial, Operating Safety, Officers at the site of accident</u> Full powers	Full powers	<u>All Mechanical, Medical, Commercial, Safety, Operating Safety and Electrical Officers at the site of accident</u> Full powers	1. Vouchers/Bills should be submitted within a Week's time 2. Finance concurrence required at the time of post facto sanction <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.35
	(H) Procurement of ART/ ARMV equipment.	PCME – Full Powers -	--	--	1. No item/equipment shall be banned while being purchased for ART/ARMV/Breakdown Crane. No circulars/orders restricting the purchase procedures/powers for ART/ARMV/Crane equipment shall be applicable unless issued by Railway Board (MM&FC). <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.37
	(I) Sanction of cash imprest for maintaining ART/ARMVs/Cranes.	PCME – Full Powers.	Nil	Nil	1. Finance concurrence is necessary <i>Authority:</i> 1. Recommendation of High Level Committee on Disaster Management Item No.39.
	(J) Purchase of ART/ ARMV/Crane material through imprest cash.	--	--	JAG/Sr. Scale/Jr. Scale in Divisions Full powers to ART In-charge officer up to Rs. 10,000/- per item	1. Finance concurrence not required

2	3	4	5	6	REMARKS
tion of / Airplane to ite of serious to evacuate l dead in the rious accident. tion of Air dispatch the ns to the site of					1. These powers are left to the discretion of GM. The circumstances under which GM exercise these powers, broadly cover the following types of cases: (i) Where more than 10 casualties (death-cum-serious injuries) are feared and it is difficult for these officers to reach the site within reasonable time. (ii) Where heavy damage is caused to Railway installations in sensitive and tension filled areas (e.g. wreckage of track, bridges etc. through bomb blast, other means of sabotage, etc.) (iii) Where public reaction in case of late arrival of senior officers at site is likely to be highly adverse. (iv) Normally, in case of an accident, only one helicopter should be requisitioned by a Zonal Railway, except when there is a serious passenger train accident involving several casualties when it is essential for both the General Manager and the Divisional Railway Manager to reach the site at once to satisfy the public and the Press. However, for dispatching the rescue teams to the site of the accident, separate helicopter/ airplane may be requisitioned, if so needed. <i>Authority:</i> 1. Railway Board's letter No.2002/Safety-1/6/6 dated 13.06.2004.
Cell					
egated to Dy. CPO/Recruitment only) towards establishment of 'Railway Recruitment Cell' Railways for conducting recruitment for erstwhile Group 'D' Posts from					
on of Stores	--	--			1. Finance concurrence is necessary. 2. Powers to be exercised should not exceed the limits prescribed in the Code. <i>Authority:</i> 1. Para 1801 to 1812 of Stores Code-Vol. II. 2. Board's letter No. E (NG)-II/96/ RR-1/62 dated 18.07.2005.

FIG. 3. CORRELATION CURVE

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Disaster Management Part-I 2026

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MUMBAI DIVISION, WESTERN RAILWAY



Don't Be Scared, Be Prepared