



# **DIVISIONAL**

# **DISASTER MANAGEMENT PLAN**

## **2021**



**EAST COAST RAILWAY**

**SAMBALPUR DIVISION**

## **Editorial Board**

1. **Patron** : ***Shri Pradeep Kumar  
(DRM)***
  
2. **Chief Editor** : ***Shri Sanjaya Kumar Tripathy,  
(Sr. Divisional Safety Officer)***
  
3. **Members** : ***Shri P.K.Baliarsingh, Safety Counsellor (Optg)  
Shri M.K. Prusty, Safety Counsellor (C&W)  
Shri S.K.Awadhiya, Safety Counsellor (Engg)  
Shri S.Thakur, Safety Counsellor (Loco)  
Shri D.Pradhan, Office Superintendent***

**मंडल रेल प्रबन्धक**  
**पूर्व तट रेलवे, संबलपुर,**  
**Divisional Railway Manager,**  
**East Coast Railway,**  
**Sambalpur**



### FOREWORD

*It gives me immense pleasure to note that Safety Branch of Sambalpur Division is bringing out 'Divisional Disaster Management Plan-2021'.*

*In the plan, important information like, planning to handle all types of disasters and telephone numbers of Railway Board & quick response team of railway and other adjacent Zones/Divisions, NDMA/NDRF/OSDMA Battalions, hospitals, police stations, fire stations, ambulances etc, State Govt. Officers of Odisha, Chattisgarh and disaster related websites are compiled for easy access by all concerned officials.*

*A new Chapter- 32 added to this book to aware and educate to concerned staffs about how to continue the activities when the base units like Stations and Control rooms are affected by any type of Disaster.*

*I hope that this Plan will be very useful in getting all the information regarding the rescue and relief operations and will be a guideline to all concerned officials of the division.*

*Once again, I congratulate the Safety Branch of Sambalpur Division, East Coast Railway for this informative book.*

**(Pradeep Kumar)**  
**Divisional Railway Manager**  
**Sambalpur**

वरिष्ठ मंडल संरक्षा अधिकारी  
पूर्व तट रेलवे/ सम्बलपुर ,  
*Senior Divisional Safety Officer,  
East Coast Railway, Sambalpur*



## FOREWORD

A 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.

Disaster Management Act-2005 has been introduced with a view to provide effective management of disasters and for matters connected therewith or incidental thereto.

Disaster Management involves planning, what to do before, during and after a disaster or emergency occurs. Planning for disasters in advance significantly reduces damages.

The current edition is in continuation in the series of divisional disaster management Plan – 2021, Sambalpur Division with further consolidating and renewing the information. Some valuable information over COVID – 19 and continuation of activities of station and control room have also been added in the new edition for the guidelines of all staffs.

We are heartily thankful to the entire safety department for their active participation in the revision and improvement of booklet.

So let us all make best use of this booklet and make railway a better and safe place.

(Sanjaya Kumar Tripathy)  
Sr. Divisional Safety Officer  
Sambalpur

## **INDEX**

<b>Sl.</b>	<b>Chapter No</b>	<b>Subjects</b>	<b>Page No</b>
1.		Order	6
2.		Abbreviation	7
3.		Introduction	9
4.	Chapter-1	Disasters	11
5.	Chapter-2	Disaster Preparedness- Availability of Resources	14
6.	Chapter-3	Disaster Preparedness- ARTs / ARMEs	16
7.	Chapter-4	Disaster Response- An Overview	21
8.	Chapter-5	Disaster Response- Instant Action Team	23
9.	Chapter-6	Disaster Response- First Responders	30
10.	Chapter-7	Disaster Response- Officers at Division & HQ	33
11.	Chapter-8	Disaster Response-Co-Ordination Centres	45
12.	Chapter-9	Disaster Response-Assistance From Adjoining Divisions/ Zones.	50
13.	Chapter-10	Site Management Plan-I	53
14.	Chapter-11	Site Management Plan-II	58
15.	Chapter-12	Site Management Plan-III	69
16.	Chapter-13	Passenger Management	75
17.	Chapter-14	Media Management	78
18.	Chapter-15	Fire and Other Accident Management	81
19.	Chapter-16	Preparedness for Disaster Management	89
20.	Chapter-17	Cyclone Management	91
21.	Chapter-18	Flood Management	101
22.	Chapter-19	Earth Quake Management	109
23.	Chapter-20	Land / Hill slide	112
24.	Chapter-21	Heat Wave	116
25.	Chapter-22	Terrorism Disaster	118
26.	Chapter-23	Chemical Disaster	122
27.	Chapter-24	Chemical (Terrorism) Disaster	127
28.	Chapter-25	Nuclear and Radiological Emergency Disaster	129
29.	Chapter-26	Biological Disaster	131
30.	Chapter-27	Disaster in Tunnel/Deep Cutting or in Water Body	136
31.	Chapter-28	Crisis Management	137
32.	Chapter-29	Strike Management	144
33.	Chapter-30	Disaster Communication Management	146
34.	Chapter-31	Medical Preparedness and Hospital Disaster Management Plan	152
35.	Chapter-32	Provision/Continuation of activities of Station, Division Control Room & H Q Control Room in case they are affected by Disasters.	156
36.	Chapter-33	Multi Disaster Control Room	161
37.	Chapter-34	Extract of East Coast Railway Schedule of Power.	162
38.	Chapter-35	List of Sensitive Installations	168
39.	Annexure	List of Annexures (Sl.No.1 to 24)	170-211

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

No. ERB-I/2002/24/44

New Delhi, dated 17-09-2002

**ORDER**

The Ministry of Railways have decided to constitute a high level committee to review the disaster management system over Indian Railways and give recommendations for strengthening and streamlining the same. This committee will consist of the following:

- |      |  |   |          |
|------|--|---|----------|
| i)   | Member Mechanical, Railway Board           | - | Convener |
| ii)  | Member Traffic, Railway Board              | - | Member   |
| iii) | Director General, Railway Health Services  | - | Member   |
| iv)  | Director General, Railway Protection Force | - | Member   |
| v)   | Additional Member (Budget), Railway Board  | - | Member   |
2. Executive Director / Safety, Railway Board, will be the Secretary of the Committee.
3. The terms of reference of the Committee are :--
- (i) To review the existing Disaster Management System over IR related to train accidents and natural calamities and to suggest improvements.
  - (ii) To identify the technological and managerial inputs in order to quicken the pace of relief and rescue operations.
  - (iii) To institute a standing arrangement with other Central Ministries, State Governments and Armed Forces to enable quick and smooth restoration operations without any legal or procedural hurdles.
4. The Committee is expected to give its recommendations in two months Necessary secretarial assistance (one computer literate P.S. and one L.D.C.) would be provided to Executive Director (Safety) during the tenure of the Committee.

**(R.R. JARUHAR)**  
**Secretary / Railway Board**

**MEMBER OF THE HIGH-LEVEL COMMITTEE ON DISASTER MANAGEMENT**

- i) S Dhasarathy, Member Mechanical & Convener
- ii) M C Srivastava, Member Traffic.
- iii) Vijayalakshmi Viswanathan, Financial Commissioner.
- iv) Dr. K Suresh, Director General/Railway Health Services.
- v) Dr. A K Pandey, Director General/Railway Protection Force.

### FEW ABBREVIATIONS USED

ART	Accident Relief Train	AEN	Assistant Engineer
ARME	Accident Relief Medical Equipment	Asst.	Assistant
ARMV	Accident Relief Medical Van	AEE	Assistant Electrical Engineer
AC	Air Conditioned	ADG	Assistant Director General
AME	Assistant Mechanical Engineer	ARK	Araku – Station's code
ASM	Assistant Station Master	ADMO	Assistant Divisional Medical Officer.
ADRM	Additional Divisional Railway Manager	Amp	Amperes
ASTE	Asst. Signal & Telecommunication Engineer	AIR	All India Radio
AOM	Assistant Operations Manager	A G M	Assistant General Manager
AMM	Assistant Material Manager	ALP	Assistant Loco Pilot
APO	Assistant Personnel Officer.	B D	Break Down
1AC	First class Air Conditioned coach.	BIS	Bureau of Indian Standard.
INGO	Indian Government Organization	Bd.	Board.
2AC	2 <sup>nd</sup> Class Air Conditioned coach	BAM	Brahmapur- Station's code
3AC	3 <sup>rd</sup> Class Air Conditioned coach.	BSP	Bilaspur - Station's code
ACM	Assistant Commercial Manager	BNDM	Bandamunda - Station's code
AP	Andhra Pradesh	BSNL	Bharat Sanchar Nigam Limited
BPCL	Bharat Petroleum Company Limited	CHC	Chief Controller.
BHC	Bhadrakh - station's code	CPR	Cardio Pulmonary Resuscitation
BFR	08 wheeler open flat vacuum brake wagon	CCM	Chief Commercial Manager
BLGR	Bolangir- Station's code	DME	Divisional Mechanical Engineer
BIA	Bhilai - Station's code	DSO	Divisional Safety Officer
CE	Chief Engineer	DEN	Divisional Engineer
CBE	Chief Bridge Engineer	DOM	Divisional Operations Manager
CISF	Central Industrial Security Force	DMU	Diesel Multiple Unit
CTE	Chief Track Engineer	DRM	Divisional Railway Manager
COM	Chief Operations Manager	DMO	Divisional Medical Officer
COS	Controller of Stores.	DM	Disaster Management / District Magistrate.
CG	Chhatisgarh state	DMA	Disaster Management Authority.
CBRI	Central Building Research Institute.	DMT	Departmental Material Train.
CRRI	Central Road Research Institute.	DOT	Department of Telephones.
CRSE	Chief Rolling Stock engineer.	DC	District Commissioner
CSO	Chief Safety Officer	DR	Disaster Response
CME	Chief Mechanical Engineer	DPC	Diesel Power Controller
CEE	Chief Electrical Engineer	DG	Diesel Generator
CSTE	Chief Signal & Telecommunication Engineer	DCP	Dry Chemical Powder
CMPE	Chief Motive Power Engineer	DSTE	Divisional Signal & Telecommunication Engineer.
CAO	Chief Administrative Officer	EFR	Eastern Field Rifle.
CTC	Cuttack – station's code	EC	Emergency Control.
CSC	Chief Security Commissioner	EMU	Electric Multiple Unit
CSE	Chief Signal Engineer	EFR	Eastern Front Rifle
CPO	Chief Personnel Officer	ESM	Electrical Signal Maintainer
CNL	Control.	EMR	Emergency Medical Response
CPTM	Chief Passenger Transportation Manager	FA	First Aid
CFTM	Chief Freight Transportation Manager	FC	Finance Commission
CAC	Combined Assistance Centre.	FA& CAO	Financial Advisor & Chief Accounts Officer.
CPRO	Chief Public Relation Officer.	FR	First Response
CWC	Cyclone Warning Centre	FOB	Foot Over Bridge.
CRB	Chairman Railway Board	FOIS	Freight Operation Information System
CMS	Chief Medical Superintendent	FIR	First Information Report
C O	Co-ordination.	PT	Portable Telephone



CMD	Chief Medical Director	G	General.
C&W	Carriage and Wagon	GM	General Manager.
CDMO	Chief District Medical Officer	GI	Galvanized Iron
CRS	Commissioner of Railway Safety	GIS	Geographical Information System
CKP	Chakradharpur station's code	GSI	Geological Survey of India.
CCE	Chief communication Engineer.	GRP	Government Railway Police
HFL	Highest Flood Level	NDRF	National Disaster Response Force.
HLC	High Level Committee on Disaster Management	OHE	Over Head Equipment
HRD	Hydraulic Rescue Device	OIC	Officer In-Charge.
HRE	Hydraulic Re-railing Equipment	OSDMA	Orissa State Disaster Mitigation Authority.
HSD	High Speed Diesel	ODRAF	Orissa Disaster Rapid Action Force.
HOR	High Official Requisition	PSA	Palasa station's code
HOD	Head Of the Department	PRO	Public Relation Officer.
HS	Home Secretary/Hand Signal	PAS	Public Address System
HS	Hand Signal	P-Way	Permanent -Way
HM	Home Minister	PCE	Principal Chief Engineer
IA	Indian Airlines.	PCO	Public Call Office.
IAF	Indian Air Force.	POL	Petroleum and Oil
IAT	Instant Action Team	PR	Public Relation.
ICF	Integral Coach Factory	QRT	Quick Response Team.
IG	Inspector General	RMC	Regional Meteorological Centre.
IIT	Indian Institute of Technology.	RCT	Railway Compensation Tribunal.
IMD	Indian Meteorological Department.	RGDA	Rayagada.
IOC	Indian Oil Corporation	RMS	Railway Mail Service.
IRCTC	Indian Rly. Catering & Tourism Corporation.	RPF	Railway Protection Force
IRITM	Indian Railway Institute of Transport Management	RCF	Rail Coach Factory.
ISD	International Subscriber Dialing.	RVS	Rapid Vision Screen.
ITWC	Indian Tsunami Warning Centre	RRI	Route Relay Interlocking
J A G	Junior Administrative Grade.	SP	Superintendent of Police
JSG	Jharsuguda station's code	SP-ART	Self Propelled Accd. Relief Train.
KUR	Khurda Road station code	SDGM	Senior Deputy General Manager.
KGP	Kharagpur station code	SM	Station Master/Station Manager.
KBJ	Kantabanji station's code	S&T	Signal & Telecommunication
KRPU	Koraput station's code	SBP	Sambalpur station code
KRDL	Kirandul station's code	SS	Station Superintendent.
L I	Loco Inspector.	SE	Section Engineer
POMKA	Portable Medical Kit for Accident.	SSE	Senior Section Engineer.
L C	Level Crossing.	CLI	Chief Loco Inspector.
L P	Loco Pilot	SSO	Senior Safety Officer.
MSMD	Mahasamund station's code	SR	Subsidiary Rule
MoR	Ministry of Railways	SJAB	St.John Ambulance.
MOSR	Minister of State for Railways	SOS	International Call for Distress.
MoU	Memorandum of Understanding.	STD	Subscriber Trunk Dialing
MM	Material Manager.	SERC	Structural Engineering Research Centre.
NGO	Non-Governmental Organization	TCI	Telecommunication Inspector.
TI	Traffic Inspector.	TCM	Telecommunication maintainer.
TS	Train Superintendent	UCC	Unified Command Centre.
TTE	Train Ticket Examiner.	VSKP	Vishakhapatnam station's code
TRD	Traction department		
TIG	Titlagarh station's code	VZM	Vizianagaram station's code
TPC	Traction Power Controller	WAT	Waltair station's code
TLC	Traction Loco Controller.	VHF	Very High Frequency
TXR	Train Examiner.	DC	District commissioner/ District collector.



## **INTRODUCTION**

Earlier Indian Railway used to handle disasters, mainly related to train accidents. The situations have changed with promulgation of Disaster Management Act. – 2005. This act covers wider range of disasters like terrorist attack, natural calamities, etc. In Sept'2002, the High Level Committee suggested to prepare Zonal / Divisional Disaster Management Plan, which was brought into action in the year 2003, vide Railway Board's Safety Directorate letter No. 2003/Safety- I/6/2, dated 29th September 2003. This letter laid down the requirement of Division's Disaster Management Plan as follows:

All Divisions and Zonal Railway HQ (including Metro Kolkata & Delhi Metro Rail Corporation) must devise their disaster management plan, if not already done taking into consideration the resources available with them & with their neighboring divisions/Zonal Railways, Civil Authorities, industrial units and Armed Force bases located in their territory. This would enable the Divisions/ Zonal Railways to muster the entire local resources in case of a major disaster.

### **PREPARATION OF DISASTER MANAGEMENT PLAN**

The Disaster Management Plan must inter-alia includes “who is responsible for what activities in details”.

- i. Preparation and implementation of disaster management plan is the responsibility of concerned General Manager/Addl. General Manager/CSO.
- ii. The authority to order ART/ARMV/Break Down crane is vested with Chief Mechanical Engineer/Chief Motive Power Engineer (Running & Loco)/ Sr. Divisional Mechanical Engineer/Divisional Mechanical Engineer, etc
- iii. Senior most Railway Officer at the site of the disaster shall be designated as Site Manager.
- iv. Management of Rescue Operations - Primarily Mechanical and Medical Departments.  
Assistance to be provided by all Railway-men (irrespective of their department) as needed.
- v. Relief operations (including care for the dead) - Commercial, Medical, Personnel & Security Departments.
- vi. Communication network – Signal & Telecommunication Department.
- vii. Crowd control and law & order at site - Security Department.
- viii. State Police clearance for restoration - Security Department.
- ix. Rolling stock - Mechanical Department.
- x. Fixed infrastructure like Track, Over Head Equipment, Signaling system, etc. - Departments concerned.
- xi. Maintenance of SPART / ART & SPARMV / ARMV Rolling Stock/Break Down cranes including rail-cum-road and road mobile emergency vehicle etc. - Mechanical Department.
- xii. Maintenance of equipment kept in SPART/ART/SPARMV/ARMV for rescue and restoration operations - Departments concerned.

xiii. Media Management at site -

- a. Site Manager shall be the chief spokesman at site and can be assisted by the Branch Officers concerned, if needed.
- b. PR/Commercial Department to look after the media needs at site.

xiv. Checklist for the officers & supervisors must be issued in the form of a pocket booklet indicating **DOs and DON'Ts** for the benefit of:

- a. First official reaching the site of accident
- b. Senior most officer at the site.
- c. Divisional/HQ control organization.
- d. Station Manager/Station Master.

The Disaster Management Plans must be reviewed and updated in the month of January every year.

=\*=

## **CHAPTER – I**

### **(DISASTER)**

#### **DEFINITION OF DISASTER:**

Railway Board, vide letter No 2003/Safety(DM)/6/2 Pt. dated 06-01-09, defined Railway Disaster in the following way:-

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

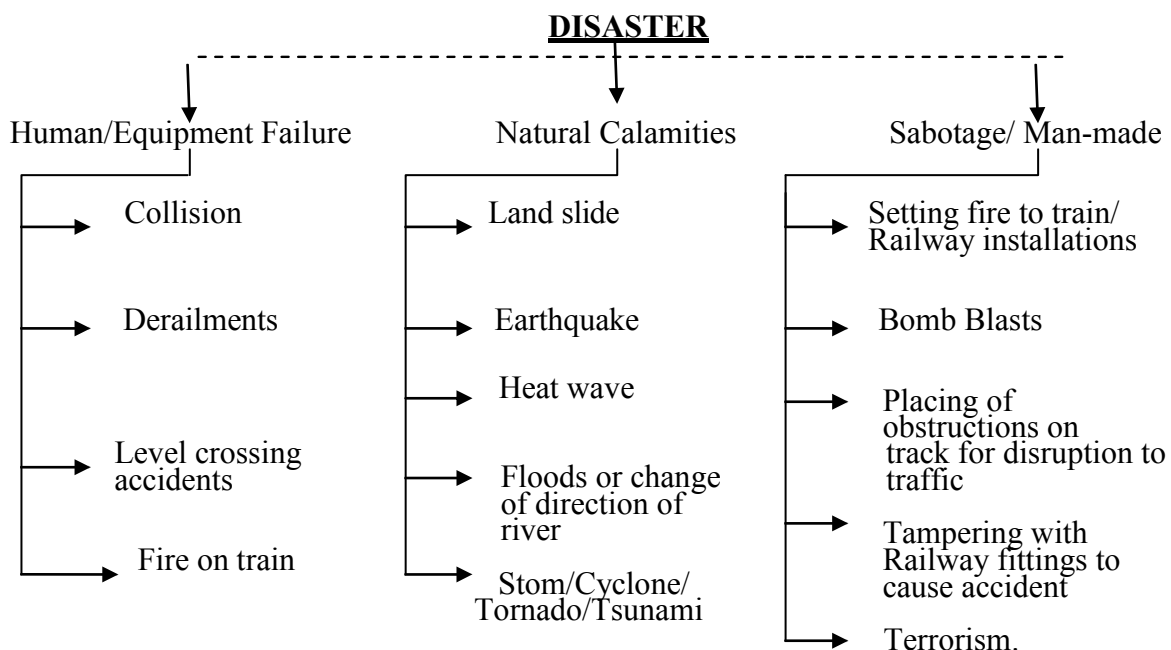
#### **Salient Features of Disaster Management Act 2005:**

Disaster Management Act 2005 has been introduced with a view to provide effective management of disasters and for matters connected therewith or incidental thereto. The following provisions are available in this Act:-

1. Formation of National Disaster Management Authority (NDMA) with Prime Minister as Chairperson and nine (09) other members and an Executive Committee with Secretaries to Govt. of India as members.
2. NDMA shall have powers to lay down policies, guidelines, planning and co-ordination and evaluation & monitoring for Disaster Management. There shall be a National Plan drawn up for disaster management in the whole country.
3. Similar State Disaster Management Authority (SDMA) with Chief Minister as Chairperson and eight (08) other members shall be formed having power to lay down policies, guide lines and planning & monitoring at state level. There shall be a state executive committee which shall have Chief Secretary as Chairperson and four other secretaries as members. A state DM plan shall be made. Similarly, all Metro, cosmopolitan city must have plan with Mayor or MC as Chair Person.
4. At District level, a District DM Authority with Collector/DC/DM as Chairperson and SP, DMO and other two Dist. Level Officers as member shall be formed with similar function and a District Disaster Management Plan shall be drawn.
5. Central Govt will take measures for co-ordination among various DMA, with various ministries, and Naval, Military and Air Forces for capacity building, preparedness and effective response. Assistance to State Govt. shall be provided. Every ministry shall take measures as per guidelines laid down in national plan and prepare their own Disaster Management Plan. Similarly DMA must have unit branch at adjacent State / City, so that in case of major Disaster then the DMA activity will not collapse.
6. Similar action will be taken by the State Govt. and local Authorities at State and District levels respectively.
7. A National Institute of Disaster Management shall be formed for planning, training and research in the area of Disaster Management.
8. A National Disaster Response Force (NDRF) will be constituted for specialized response to disasters.

9. The act provides for punishment for obstruction, failure of officer on duty, for contravention of any order of requisition, false warning, discrimination, etc., by imprisonment or fine or both.
10. Railway Board Vide letter no- 2003/Safety/DM/6/3 dtd. 09.11.09, informed that, “Ministry of Railway can request NDMA for assistance of NDRF when situation so warrants.”
11. In case of Railway Disaster, Zonal Railways on request from Divisions or suo-motto may approach Railway Board, who will request NDMA to direct NDRF Battalions for necessary help.
12. Railway Board Vide letter no- 2003/Safety (DM)/6/3 dtd. 27.07.10, informed that, “Zonal Railway is directed to advise divisional officers to conduct and take part in the mock drills/ Joint exercise in co- ordination with the representative of NDMA as also NDRF battalions located nearest to the divisional offices”.

### TYPES OF DISASTER CAUSING INTERRUPTION TO TRAIN SERVICES



#### **Human / Equipment failure**

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

#### **Natural Calamities**

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

#### **Sabotage/Man-made.**

Sabotage causing deliberate loss of life and / or damage to property.

### **CLASSIFICATION of A RAILWAY ACCIDENT AS A DISASTER**

Disaster in the Railway context is defined as a major train accident leading to serious casualties, long duration of interruption to traffic and cannot be tackled with own resources but requires help from other non-Railway resources. This compendium of instructions has been prepared for dealing with such disasters and not normal train accidents. In case of a serious accident the Administration would take a conscious decision whether the situation is to be classified as a Disaster or not.

### **MEASURES TAKEN FOR PREVENTION OF DISASTER.**

- i. All locomotives (Electric/ Diesel) have been provided with Speedometers with speed recorder and VCDs.
- ii. Un-Manned level crossings have been replaced with lifting barrier as per TVU and visibility.
- iii. Old distressed bridges have been re-habilitated under RSRC.
- iv. Wheel Impact Load Device (WILD) has been installed in some section.
- v. Weigh bridges have been installed at every loading places.
- vi. Provision for rolling in examination of all coaching trains at important stations.
- vii. Measuring of Axle box temperature by -contact thermometers at major stations.
- viii. No overdue POH coach is allowed in service.
- ix. No crew with overdue PME/RC is allowed to work a train.
- x. Booklet of DOs and DON'Ts has been distributed to all on-board staff.
- xi. Crack Teams of Rail Rescue Experts have been formed in each division of this Railway.

### **OFFICERS AUTHORISED TO DECLARE AN ACCIDENT AS A DISASTER**

“GM”, “AGM” and “PCSO/CSO” are authorized for declaring an untoward incident as Railway Disaster. Such declaration will be issued to all concerned with the approval of competent authority. If the accident is declared as Disaster, all instructions as contained herein this Disaster management Plan would automatically come into force, and officers and staffs of all departments would take action as laid down in this book.

Actions as prescribed in Accident Manual will inter-alia come into force. All officers and Supervisors concerned should be fully conversant with various duties listed therein and carry them out without fail.

==\*=

## (CHAPTER - 2)

### **DISASTER PREPAREDNESS - AVAILABILITY OF RESOURCES**

Railways are generally self- reliant in carrying out rescue and relief operations as a result of having a well organized set up including ARMVs 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 by mobilizing non-Railway resources also.

Disaster Management mechanism in Railways can be maintained at a high level of preparedness and efficiency by keeping all resources readily available and in good fettle. Resources imply both Railway and non-Railway men and material including medical personnel, transport, volunteers, Police and fire services.

Details of these resources, their location, contact numbers and other details have been identified, compiled and placed in a “Data Bank”. This Data Bank is available in the Divisional DM Plans of Khurda Raod, Waltair & Sambalpur divisions. These have also been available in the website of East Coast Railway ([www.eastcoastrailway.gov.in](http://www.eastcoastrailway.gov.in)) for ready access.

Resources available in case of a major accident may be grouped into 04 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 ARMV/ART depots and elsewhere within the division.
3.     **Resource Unit III**   Railway resources available at ARMV/ ART depots and elsewhere on adjoining Zones and Divisions.
4.     **Resource Unit IV**    Non-Railway resources available within or outside the division.

#### **RESOURCE UNIT – I**

##### **On trains carrying Passengers 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.   Fire Extinguishers in Brake Van, AC coaches, pantry cars and Locomotives.
- iv.    Portable Telephones, available in Locomotives and with Guard.
- v.     Walkie- Talkie and CUG mobile phones with Guard and Loco Pilot.
- vi.    Cell Phones/Mobile communications with Railway employees and passengers.
- vii.   Emergency lighting box available with the Guard.
- viii.   Information collected by Train Superintendent/Travelling Ticket Examiner about Medical Practitioners travelling on the train.
- ix.    Information collected by TS/TTE about Railway Officers travelling on the train.
- x.     Railway Staff travelling on the train - either on duty or on leave as passengers.
- xi.    Passengers travelling on the train who volunteer their help for rescue and relief work.

##### **Non - Railway resources available nearby:-**

- i)     Volunteers from nearby villages and towns including NGO.
- ii)    State/Local administrative machinery as available nearby.
- iii)   Contractual agencies working/not working with Railway in nearby location.
- iv)    State disaster management authority.
- v)     Police line (barrack) & Army unit if any.
- vi)    Transport facilities and vehicles available at site or passing through nearby LC Gates.
- vii)   Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.

- viii) Generators from nearby villages for lighting up accident site.
- ix) Station Staff and Local Railway Administration should requisition help from non-Railway sources before Railways own rescue team arrives.
- x) Railway Board can be requested to requisition the nearest NDRF (National Disaster Response Force) for relief and rescue operation at the time of major Railway disaster through Zonal HQ. Ref. Director Safety Railway Board letter No. 2003/Safety/DM/6/3,dtd. 09-11-09.
- xi) Such local networks are most effective in rushing assistance immediately, especially with regard to-

Medical succor	Lighting arrangements	Divers
Additional manpower	Transport services	Boats with boat men
Rescue equipments	Fire fighting tools etc	
Robotics camera	Earthmoving equipments	

#### **Railway resources available nearby**

- i. Engineering gangs, Contractual labourers.
- ii. OHE, Signal, Engineering Depot & Mechanical staff available.
- iii. Other resources such as medical facilities, communication facilities.

#### **Resources 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.

#### **RESOURCE UNIT – II**

SP-ARTs, SPARMV, ARMVs, ARTs with 140/120 T crane are stabled at nominated stations. Their locations are given in Chapter - 3.

Railway medical and departmental resources. (given in Annexure- 04)

#### **RESOURCE UNIT – III**

Location of ARMEs, SPARMEs, ARTs with 140/120 T crane based on adjoining Zones/Divisions are given in Chapter - 3.

Section wise chart of which ARMVs/ARTs are to be requisitioned from adjoining Zones/Divisions is given in Chapter - 3.

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.

Copies of DM Plans of adjoining divisions should be available with the Divisional Control Offices.

#### **RESOURCE UNIT - IV**

Non-Railway resources available within the division and included in the Divisional DM Plan.

Non-Railway resources available outside the Division, and included in the Divisional DM Plans of adjoining Zones/Divisions.

==\*=



## (CHAPTER – 3)

### DISASTER PREPAREDNESS - ARMVs / ARTs

#### ACCIDENT RELIEF MEDICAL VAN (ARMV)

**ARMV Scale-I** – Equipment stored in Special Medical Relief Vans stabled in separate sidings;

- i. Location of ARMV Scale-I are given below in **3.2 .2** and neighbouring Railway in **3.3.2**.
- ii. One key of the Van is available with the SSE(C&W) or Station Master in a glass fronted case.
- iii. Other key is with the doctor in charge of the ARMV.
- iv. Medicines and equipments are provided as per Rly. Board norms.
- v. Keys of all locks inside the ARMV are also in duplicate. One set of keys is kept with the Medical Officer in charge of ARMV and the other set of keys are kept in a glass-fronted case inside the ARMV.
- vi. The target time for turning out of ARMV is 15 minutes after sounding hooter where there is double exits and 25 minutes where there is single exit. (Now-a-days almost all double exit )
- vii. The Accident Relief Train (ART) must leave the base station to accident site within 30 minutes by day and 45 minutes by night after sounding of hooter.

#### LOCATION OF ART AND ARME & BREAKDOWN CRANE

**Location of ARTs over ECoR :**

Divn	Location	Class	Facilities Available
KUR	KUR	‘A’	140 T Diesel Break Down Crane with two sets Lukas Hydraulic Re-railing equipments. Speed potential of the crane is 100 KMPH.
	BHC	‘B’	ART with 2 Coaches, 3 BCNATHS with Lukas Hydraulic Re-railing equipment. Fit to run at 100 KMPH.
	TLHR	‘B’	ART with Lukas Hydraulic Re-railing equipment. Fit to run at 100 KMPH.
	PSA	‘B’	ART with Lukas Hydraulic Re-railing equipment. Fit to run at 100 KMPH.
SBP	KBJ	‘A’	140T Diesel Breakdown Crane with Lukas hydraulic re-railing equipment. Speed potential of crane is 100 KMPH.
	SBP	“A’	140 T Diesel BD crane along with ART with Lukas equipment. Speed potential of the crane is 100 KMPH.
WAT	VSKP	‘A’	140 T Diesel BD Crane with speed potential of 100 KMPH and 120T diesel crane along with ART with Lukas equipment fit to run at 50 KMPH.
	RGDA	‘B’	Hydraulic Re-railing equipment (MFD). Fit to run at 100 KMPH.
	KRPU	‘A’	140 T Diesel BD Crane with HRE Equipment. Fit to run at 100 KMPH.
	KRDL	‘A’	120 T Diesel breakdowns Crane With Lukas Hydraulic Re-railing Equipment. Fit to run at 50 KMPH.

#### **Accident Relief Medical Equipments over ECoR:**

Divn	Location	Scale	Facilities Available
VSKP	VSKP	Scale-I	3 Coach SPARME with higher capacity HRD equipment and Plasma cutting equipment.
	KRPU	Scale-I	3 Coach SPARME with higher capacity HRD equipment and Plasma cutting equipment.
	RGDA	Scale-I	3 Coach SPARME with higher capacity HRD equipment

			and Plasma cutting equipment.
	VZM	Scale-II	
	NWP	Scale-II	
	ARK	Scale-II	
	KRDL	Scale-II	
	JDB	Scale-II	
	LKMR	Scale-II	
KUR	<b>KUR</b>	<b>Scale-I</b>	3 Coach SPARME with higher capacity HRD equipment & Plasma cutting equipment.
	<b>PSA</b>	<b>Scale-I</b>	2 Coach Conventional ARME with HRD equipment & Plasma cutting equipment.
	<b>BHC</b>	<b>Scale-I</b>	2 Coach Conventional ARME with higher capacity HRD equipment & Plasma cutting equipment.
	CTC	Scale-II	
	BAM	Scale-II	
	TLHR	Scale-II	
	KDJR	Scale-II	
SBP	<b>SBP</b>	<b>Scale-I</b>	3 Coach SPARME with higher capacity HRD equipment and Plasma cutting equipment.
	<b>TIG</b>	<b>Scale-I</b>	2 Coach Conventional ARME with higher capacity HRD equipment & Plasma cutting equipment.
	BLGR	Scale-II	
	MSMD	Scale-II	
	KBJ	Scale-II	

**NOTE: POMKA -Available in all health units and Hospitals of ECoR**

#### **Location of C-Class ART/Road Mobile Tool Van (RMTV)**

<b>Divn</b>	<b>Location</b>	<b>Class</b>	<b>Facilities Available</b>
KUR	PUI	RMTV	With Hydraulic Re-railing Equipment.
	PRDP	C	With Hydraulic Re-railing Equipment.
	TLHR	RMTV	With Hydraulic Re-railing Equipment.
SBP	SBP	RMTV	With Hydraulic Re-railing Equipment.
	KBJ	RMTV	With Hydraulic Re-railing Equipment.
WAT	VSKP	RMTV	With Hydraulic Re-railing Equipment.

## **POSITION OF ART/ARMES IN NEIGHBOURING DIVISION/RAILWAYS**

### **a. ARTs of S. E. Railway:**

S.L	Station/ Div.	Class	Facilities
1	BNDM/CKP	‘A’	140 T Diesel Crane with Lukas Hydraulic Re-railing equipment.
2	JSG/CKP	‘B’	Self-Propelled ART with Lukas Hydraulic Re-railing Equipment.
3	KGP/KGP	‘A’	140 T Diesel Crane with Re-railing equipment.

### **b. ARTs of S. E. C. Railway**

Sn	Station/ Div.	Class	Facilities
1.	BIA/ R	‘A’	ART with MFD & 140 T Diesel Crane.
2.	BSP/ BSP	‘A’	ART with Re-railing equipment & 140 T Diesel Crane.

### **ARMVs of adjoining Railways**

S. E. Railway		S. E. C. Railway		S. C. Railway	
Station/Div.	Class	Station/Div.	Class	Station/Div.	Class
BNDM/CKP	Scale-I	BIA/R	Scale-I	RJY / BZA	Scale-I
KGP/KGP	SPART	BSP/BSP	Scale-I		

## **USE OF ACCIDENT ALARM SIGNALS WHISTLE/HOOTER/STATION BELL**

### **Long Range Electric Hooter-**

- In case of an emergency when ordered by On-duty Chief Controller / Dy. Chief Controller will take out the Hooter key from the key box.
- If required break open the glass fronted case of the keyboard to take out the key and sound the Hooter.
- Give five (05) blasts, each of 60 seconds duration with 10 second interval in-between two blasts, when accident involving in passenger carrying train or injury/casualty in any accident to order out ARMV and ART. This sequence of blasts should be repeated twice with an interval of 05 min.
- If there is a failure of delayed action switch, manually operate the check switch to give calls of one-minute duration with half-minute interval between two successive calls for a period of approximately 20 minutes.
- If there is no injury/casualty in the accident then ART is to be ordered out. In this case 03 blasts to be sounded, each of 60 seconds duration with an interval of 10 seconds in-between two blasts.

**At stations where electric Hooters is either not provided or where electric Hooter has failed.**

- i. Give 05 blasts of 60 seconds duration each with 10 seconds interval between two successive blasts using the whistle of a locomotive / engine if available. This sequence shall be repeated twice with an interval of 03 minutes.
- ii. If a locomotive / engine is not available, ring the station bell continuously. ART & ARME in-charges should be informed over Mobile/ railway phones for necessary action. SM has to provide transportation of Medical, Mechanical, Electrical, Engineering and other staff.

**Portable Telephones**

The Portable Telephones available in Brake Van of Passenger Carrying Trains either 4W or 2W may be used to contact emergency Control (CNL) or section CNL as per the type of section to convey the information.

**(A) Types of Portable Telephones:-**

- (i) Portable Telephones are available in Brake van of Passenger carrying Trains.
- (ii) Telephones presently in use are of the 4-wire/2-wire type of portable phones, which can be used in RE area as well as in overhead communication territory.
- (iii) There are two types of Portable Telephones.  
Landline type (Overhead Telephone line transmission) Socket Type (Underground cable transmission)

**(B) Underground cable type:-**

- (i) Look at Receiver Arrow sign for socket location on Over Head Equipment (OHE) mast / location post and move towards direction pointed by the arrow.
- (ii) On reaching EMC (emergency control phone) socket location, open the socket by using the key kept in the phone box where required.
- (iii) Plug in the phone terminal properly for communication.
- (iv) In non-electrified section, this phone connects to test room/ section controller.
- (v) In electrified section this phone connects to the Traction Power Controller (TPC) and then it is linked to the section controller.

**All walkie talkie sets to be ensured properly charged and tested and proper channel setting for communication including use of “SOS” button in case of emergency.**

- (i) Ensure that the set is charged.
- (ii) Check that the proper channel is selected for communication.
- (iii) Do not intervene when the channel is engaged.
- (iv) Never Press “SOS” button provided in walkie-talkie unless it is a real emergency. In case of emergency if “SOS” button is provided on the walkie-talkie, it should be used to override an on going conversation.

**Use of BSNL/Cell Phone/Mobile Phones**

- (i) BSNL landline phone numbers with STD code for all the Railway stations in a Division are given in Working Time Table (WTT).
- (ii) WTT is available with Guard and Loco Pilot.
- (iii) Refer WTT for nearest Station contact number.
- (iv) BSNL phone numbers of important Stations are also available in Public Time Table.
- (v) Effective Immersat / Satellite Phone.

### **Emergency Train Lighting Box**

#### **How to use ETL BOX:-**

- (i) This box is available in the Brake Van of Passenger carrying trains.
- (ii) Open the box by removing the seal.
- (iii) Fix the crocodile clip of hand Torch to the coach power supply terminal and use it for searching/ surveying.
- (iv) Fix the flood light of the Tripod Stand and connect its crocodile clip to the power supply terminal of 110V DC.

### **Stretcher**

Stretcher is available in each SLR of passenger carrying train and also at every station.

### **Fire extinguisher**

Fire extinguishers are available with Guard of passenger carrying trains or brake -vans, Loco Pilot and in AC coaches. All on board staff should be trained for use of fire extinguishers.

### **Sounding of Hooter:-**

- (a) Sounding of hooter for turning out of Relief Train/ARME van will be as follows:-

	Total No. of blasts	Duration of each blast	Gap between 2 consecutive blasts
(i) Relief Train with ARME	5	60 seconds	10seconds
(ii) Relief Train without ARME	3	60 seconds	10 seconds

- (b) The official in-charge of “Hooter” is responsible for its proper maintenance and to keep a trained staff ready round the clock for sounding the hooter at once on receipt of order from train ordering officials
- (c) Target time for the turnout of ARME and ART :-
- (i) The Accident Relief Medical Van must be dispatched to the site of accident within **15** minutes from the base station after sounding the hooter where there is double exit siding and within **25** minutes in case of single exit siding with the first available engine.
  - (ii) The Accident Relief Train must be turned out/dispatched from the base station to the site of accident within **30** minutes by day and **45** minutes by night after sounding of hooter.

==\*=

## (CHAPTER – 4)

### DISASTER RESPONSE – AN OVERVIEW

#### **FIRST AID IN EMERGENCY**

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

1.	Unconscious	4.	Grievously injured
2.	Bleeding excessive	5.	In a state of shock
3.	Having breathing problems	6.	Having fractures & simple injury

**For assessing and handling injuries, acronym DRABC 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, pinch and shake gently. If there is no response, then it means that the patient is unconscious.

**iii. A – Air Way**

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

To open the airway lift the chin forward with the fingers of one hand while pressing the forehead backwards with the other hand, now the tongue comes forward and the airway is cleared. To clear the other objects in the mouth press the Jaw and 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**

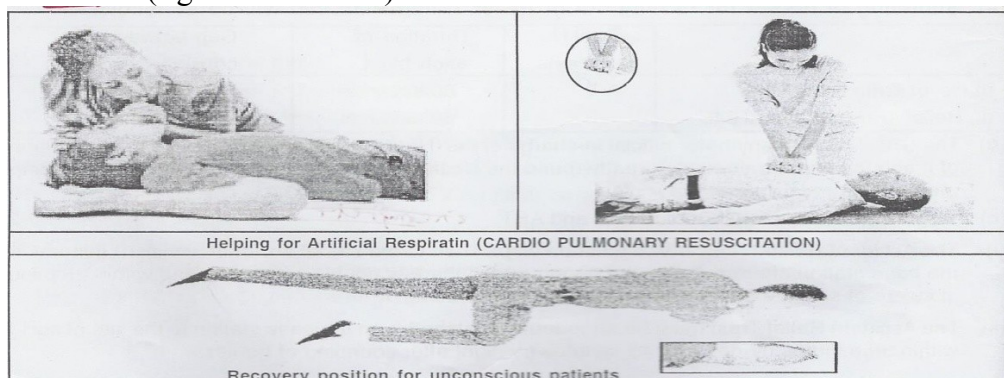
Check for breathing. Keep the back of your fingers near the nose of the patient. You can feel the warm air (or) keep your ear near the nose and look for the movement of chest, listen to the sound from the throat and feel the warm air from the nose.

**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).

**After checking DR ABC, there may be two possibilities –**

- If patient is breathing, has circulation but unconscious, immediately turn him to Recovery position and transport to hospital.
- If the patient has failure of breathing and circulation, then immediately start CPR (CARDIO PULMONARY RESUSCITATION) the important life saving technique in First Aid. (figures are shown)



### **Recovery position -**

- i. 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.
- ii. 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.

### **GOLDEN HOUR RULE:**

The basic principle of Trauma Management is speed and expediency – **“Most Trauma patients die of shock, which comes from sluggish or nonexistent circulation and the resulting chemical changes in the body. “ (Dr. R. Adams Cowley, Maryland Institute for Emergency Medical Services).**

Therefore critical trauma patient should be given medical care within one hour from the time of accident. Chances of recovery/survival reduce drastically, even with best medical attention given thereafter. This period of one hour is known as **“The Golden Hour”**.

During golden hour period patients should be provided with treatment to arrest bleeding, shock relieving and artificial respiration and keeping them in recovery position.”

- i. Most Trauma patients can be saved if bleeding is effectively stopped and blood pressure restored **within an hour**.
- ii. It is likely that those patients, who have experienced shock and remain in that state of shock for long duration, will die. Surgical intervention within that first one hour is, therefore, crucial for increasing the patients’ chances of survival.
- iii. Thus, “The Golden Hour,” begins the moment the injury occurs.
- iv. The Golden Hour operation called effective if injured comes under medical surveillance immediately.

### **The basic steps for quick and effective rescue & relief operations are following:**

- i. Rapid access to the site of accident for searching of victims.
- ii. Quick extrication of victims and effective on-site medical management.
- iii. Expeditious extraction and shifting to rescue vehicle(s).
- iv. Speedy transportation to hospital.
- v. Never waste a minute only to analysis postmortem of mistakes rather work effectively.

=\*=



## (CHAPTER-5)

### **DISASTER RESPONSE – INSTANT ACTION TEAM**

It is necessary to take firm and quick decision to save lives and property. To achieve these objectives, Rly have a well defined action plan that is successfully executed by the co-ordinate efforts of different disciplines, all of whom function as a team. The three groups which are active during Disaster response, may be classified as follows –

- A. **Instant Action Team (IAT)** [Chapter – 5]
- B. **First Responders (FR)** [Chapter – 6]
- C. **Disaster Management Team (DMT)** [Chapter – 7]
- D. **Coordination Centres.** [Chapter – 8]
- E. **Receive & dispatch centres.**

#### **INSTANT ACTION TEAM (IAT)**

##### **Instant Action Team Comprises :-**

- i. The Guard, Crew, TS, TTEs, AC Mechanics, AC coach attendant, Asst. Guard, RPF and other on board Railway staff on the accident affected train.
- ii. GRP staff travelling on the affected train on duty.
- iii. Railway staff travelling by the accident involved train either on duty or on leave as passengers.
- iv. Doctors travelling by the affected train.
- v. Passengers travelling on the train who volunteer for rescue and relief work.
- vi. Railway staff working at site or available near the site of the accident.
- vii. Non-Railway local volunteers available at or near the accident site.

##### **Checklist for Members of Instant Action Team (IAT) :-**

- i. Generally, about 15 minutes of time elapses before information regarding occurrence of an accident reaches the Divisional Control Office. In case information can be conveyed immediately this time can be saved. This 15 minutes of time is of vital importance since it constitutes 25% of the ‘Golden Hour’.
- ii. In case any Railway staff/officer of the Instant Action Team members (IAT) has a Mobile, should ensure that telephone numbers of all relevant officials such as those of Divisional Control Offices etc. have been permanently fed into the Mobile for immediate use in an emergency.
- iii. These important telephone numbers should cover all those sections where they are required to work their train either within their own division or even those of adjoining divisions.
- iv. Divisions will get a print out and circulate a DM Telephone Directory containing all such telephone numbers that are likely to be required in an emergency.
- v. Whenever IATs are travelling at night they should keep a torch handy and secure it by some means. The torch will be of no use in an emergency if it cannot be taken out from inside the suitcase at that point of time; or if the torch cannot be located since it has fallen off due to severe jerk.
- vi. Important Telephone numbers of Divisional Officers, HQ Officers and of State Government are shown at **Annexure – 7, 10 & 17 to 19.**

**DETAILED DUTY LIST OF GUARD AND LOCO PILOT ARE LAID DOWN IN THE ACCIDENT MANUAL OF ZONAL RAILWAYS. SOME OF THE MORE IMPORTANT ONES ARE ENUMERATED BELOW:**

**Guard/Asst. Guard**

- i. Note down the time of the accident and the location.
- ii. Switch on the Amber Light, if provided, in Flashing Tail Lamp, in the rear of brake van.
- iii. Inform Loco Pilot through walkie-talkie set / CUG mobile phone.
- iv. Inform Station Master on walkie-talkie set / CUG mobile phone if possible.
- v. Protect adjacent line/lines first if required and then the line on which the accident has taken place as per G&SR 6.03 & 9.10.
- vi. Secure the train and prevent escaping of vehicles.
- vii. Make a quick survey of magnitude of accident and roughly assess casualty, damage and assistance required.
- viii. Send information through quickest means (CUG mobile phone/portable phone) to Control Office and SMs on either side of the block section for this purpose.
  - Walkie-talkie communication provided with stations should immediately be used. Otherwise field portable telephone should be used.
  - If a train comes on the other line, which is not blocked, the same should be stopped and information sent through the Loco Pilot.
  - Assistant Loco Pilot or Assistant guard may be sent to the next station to convey information of the accident.
  - If all of the above fail, one of the Railway staff on duty on the train should be sent on foot to the nearest station.
- ix. Utilize Emergency Train Lighting box to facilitate medical aid.
- x. Save lives and render First Aid & send patients to nearby hospital.
- xi. Call for Doctors and seek their assistance.
- xii. Seek assistance of Railway staff and other volunteers from train to rescue injured or entrapped passengers.
- xiii. Direct Railway staff and other volunteers from train for attending to injured.
- xiv. Ensure that field telephone is constantly manned by a Railway staff.
- xv. Arrange protection of passengers' belongings and Railway property with the help of Railway staff, volunteers on train, RPF and GRP.
- xvi. Stop running trains on adjacent line and utilize resources on that train.
- xvii. In electrified section if OHE is affected, take steps to switch off OHE supply.
- xviii. Arrange for transportation of injured to hospital effectively & immediately.
- xix. Record evidence or statements, if any given by passengers.
- xx. Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed.
- xxi. Log activities. Do not leave the spot unless relieved by a competent authority.

**Loco Pilot :**

- i. Note down the time of the accident and location.
- ii. Switch ON the 'Flasher light' of the locomotive and give 4 short whistles.
- iii. Inform Guard on walkie-talkies set / CUG mobile phone.
- iv. Light the Flashing redlight , if required.
- v. Inform Station Master on walkie-talkie set / CUG mobile phone if possible.
- vi. Protect the adjacent line, if required, and the train in front as per G&SR 6.03 & 9.10.
- vii. Take necessary action to keep the loco safe.
- vii. Take necessary action to prevent Loco/Vehicles/Wagons from rolling down.
- viii. Make a quick survey of magnitude of accident and roughly assess casualty, damage and assistance required.

- x. Send information through quickest means (CUG phone) to Control Office and SMs on either side of the block section for this purpose,
- xi. Walkie-talkie communication provided should be used with stations immediately.
- xii. Otherwise field telephone should be used.
- xiii. If a train comes on the other line, which is not blocked, the same should be stopped and information should be sent through the Loco Pilot.
- xiv. Assistant Loco Pilot or Assistant guard may be sent to the next station to convey information of the accident.
- xv. If all of the above fail, one of the Railway staff on duty on the train should be sent on foot to the nearest station.
- xvi. Render all possible assistance to the Guard.
- xvii. Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed.
- xviii. Log your activities. Do not leave the spot unless you are relieved by a competent authority.
- xix. Detach the loco in case of fire & take it away & secure the train & inform to SM.

**Train Superintendent/Travelling Ticket Examiners :**

- i. Preserve reservation charts of each coach containing names of passengers who actually travelled and in which berth no. and make two nos. scan / xerox.
- ii. Avail services of Doctors travelling by the train and render Medical Aid to injured.
- iii. Render First Aid to injured & open help line.
- iv. Collect particulars of injured passengers and prepare a list showing exact position of injured in coaches, from Train Engine to Brake Van. This should be handed over to Railway doctors when ARMV arrives.
- v. Prepare a separate list of dead passengers with address and ticket particulars, if available.
- vi. Take assistance of local people and other volunteers at site.
- vii. Transport injured passengers by road vehicles, if available, to the nearest hospital.
- viii. Inform stranded passengers about alternative transport arrangement.
- ix. Record evidences or statement volunteered by passengers/others at site.

**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.

**RPF and 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 luggage of passengers and Railway property.
- v. Preserve all clues and evidences regarding probable cause of the accident and ensure that those do not get disturbed / destroyed.

**Duties of 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 circumstance should any of them leave the accident site unless and until Divisional Officers arrive, take over charge of rescue and relief operations, and permit them to leave.
- iii. Railway staff on train/at site shall volunteer themselves to render assistance and report to TS/TTE/Guards of the Train.

- iv. The Senior Most Officer travelling on the train will assume charge as Officer-in-charge Site (OIC Site).
- v. Normally the Senior Most Officer will be travelling in either the 1AC or in 2AC coach, and most probably in the HQ(EQ) quota section of the coach. The HQ section of 2AC is invariably in the centre of the coach (berth nos. 19-22). In any case the TS/TTE should know who are the Railway Officers travelling in 1AC or 2 AC.
- vi. Similarly, other Railway staff will be travelling in 3 AC coach; and most probably in the HQ(EQ) quota section of the coach. The HQ section of 3AC is also in the centre of the coach (berth nos. 25-30).
- vii. In the absence of any officer, the TS or senior most TTE or the Guard will discharge duties listed out for OIC Site.
- viii. Similarly, some Group 'D' railway staff may be travelling in Sleeper coach; and probably in the HOR quota section of the coach. The HOR section of a Sleeper coach is located in the centre of the coach (berth nos. 33-40).
- ix. In the absence of any officer, the TS or senior most TTE/Guard will discharge duties listed out for OC site.

#### **Duties of OIC Site (Immediately after the accident):**

The senior most staff/officials travelling in the train is termed as OIC Site. He may be Train Superintendent or senior most TTE, if, no officer travelling in that train. He should-

- i. Note down the time of accident.
- ii. Ensure protection of traffic by Guards and Loco Pilots.
- iii. Ensure reporting of accident to nearest Station/Control.
- iv. Roughly assess the extent of damage and likely number of casualties.  
Collect Railway staff and volunteers from amongst the passengers and form different groups. Each of these groups should be assigned work as detailed at Chapter – 6 below.
- v. Maintain a log of events.
- vi. Continue to discharge duties of OIC Site, till Divisional Officers arrive and take over charge of the situation.
- vii. After Divisional Officers arrive, fully brief the DRM/ADRM and hand over charge to them.
- ix. The on board OIC Site should ensure issue of a detailed message with following information before leaving the site of the accident.
 

o Time & Date of accident.	- Extent of damage.
o Location Km. & between stations.	- Assistance required.
o Train number and description.	- Condition of the adjacent line, if any.
o Nature of accident.	- Whether OHE is involved.
o Approximate number of killed/injured.	

On arrival at accident site, Divisional Railway Manager/Additional Divisional Railway Manager will discuss with OIC Site and will issue suitable instructions to the rescue groups & their leaders regarding use of available resources in rescue operation till arrival of the accident relief train.

## **FORMATION OF GROUPS COMPRISING MEMBERS OF INSTANT ACTION TEAM (IAT)**

- i. OIC site shall immediately collect all Railway staff on train/at site and form separate groups.
- ii. Passengers travelling by the same train who volunteer for rescue and relief work should also be drafted into these groups.
- iii. Passengers from accident-involved coaches should be directed towards unaffected coaches.
- iv. In the absence of OIC site, TS/TTE shall take steps to form such groups.
- v. In the absence of TS/ TTE, Guard/Assistant Guard shall take steps to form such groups.
- vi. 5 or 6 groups should be formed depending on number of coaches involved.
- vii. Ideally, one group should be formed for handling each coach.
- viii. In case sufficient numbers of Officer are present, then one Officer should be made in-charge of each group.
- ix. Otherwise, Sr. Supervisors travelling by the accident-involved train should be nominated as in-charge of each group to co-ordinate its working.
- x. In case sufficient number of/ Sr. Supervisors are also not present, one TTE should be nominated as in-charge of each group to co-ordinate its working.
- xi. Each group should rescue injured, entrapped passengers.

## **DUTIES OF ON BOARD RAILWAY STAFF (IAT) IMMEDIATELY AFTER THE ACCIDENT.**

- i. Don't panic. Once the accident has already occurred and the train has come to a standstill nothing worse can happen further.
- ii. In case you have a Mobile phone and it is working, inform the Divisional Control Office immediately about the accident. Accident message can be informed to Divnl. Control Office by mobile phone if found in working condition. Most of time land phone, if any, works effectively.
- iii. Observe the position in which your coach has stopped; whether it is standing upright or turned upside down or lying on its side.
- iv. Try and see whether the coach has stopped on a bridge or whether there is level ground on both sides.
- v. In case the coach is on a bridge or very high embankment or in case it is raining heavily, then it is better to wait for some time and not be in hurry to leave the coach, to avoid further deterioration of situation.
- vi. If night, search your coach with your torch and try to determine the general position.
- vii. See that passengers don't get panicky. Passengers sometimes make things worse for themselves by panicking at this critical moment. They should be calmed and their confidence to be built up.
- viii. Ascertain whether passengers are injured or not and whether any of them are trapped or pinned down inside the debris.
- ix. Call out aloud and find out whether there are any doctor(s) present in the train.
- x. Doctors who are travelling in the coach should be asked to announce their presence so that they can attend to and help injured passengers.
- xi. Call out aloud and find out whether there are any Railway staffs present in the train. Railway staff who are travelling in the coach should be asked to announce their presence so that they can attend to and help other passengers.
- xii. For each coach, form a core team comprising of Railway staff available, doctors and 3 or 4 volunteers from the same coach. This core team should take the lead in helping remaining passengers both injured and uninjured.

## **DUTIES OF MEMBERS OF INSTANT ACTION TEAM (IAT) – TILL ARRIVAL OF DIVISIONAL OFFICERS.**

- i. If a person is bleeding and losing blood, or if he is unconscious, then in that case quick action is required keeping “Golden Hour” in mind. At the most only one hour’s time may be on hand.
- ii. Action should be taken as mentioned in Chapter - 4.
- iii. Persons trained in First Aid may be identified and take up specialized action like ‘Cardio Pulmonary Respiration’.
- iv. If the door is open and is accessible, then uninjured passengers should be helped to come out through the door.
- v. In AC coaches the window panes/glasses should be opened/ broken to let in fresh air for the occupants, and thereafter to evacuate them.
- vi. Non-AC coaches have one emergency exit window on each side. The position of this emergency window is 5th from the left when facing the line of windows from inside the coach. They are opposite berth nos. **23** and **57**. In case the door is locked and jammed, try and open these windows so that some of the uninjured passengers can come out through the emergency exit.
- vii. Special care should be taken while evacuating the old, infirm/ill and children in order to ensure that they are not separated from their family members as far as possible.
- viii. Extrication of critically injured should be done under medical supervision as far as possible.
- ix. In case medical supervision is not available, the critically injured passengers should be made to lie down on a bed sheet and thereafter taken out by 4 persons holding the four corners. This will ensure that no further damage takes place. (Bed sheets will be available in AC coaches).
- x. Passengers who are bleeding from open cuts should be tied up with strips of clothes so as to reduce bleeding as far as possible if cannot be stopped completely.
- xi. It is better not to take out the luggage from inside the coaches at the first instance, for two reasons. Firstly, passengers both injured and uninjured should get preference in this evacuation process. Secondly, it may be safer for the luggage to be left inside where there are fewer chances of being stolen or pilfered.
- xii. After passengers have been evacuated from 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.
- xiii. After all passengers have been evacuated, water and eatables can be taken out gradually.
- xiv. Building up confidence of injured passengers by suitable advice is of great importance.
- xv. After helping to evacuate all passengers from the reserved coach go over to the unreserved coaches and provide similar help to those passengers also.
- xvi. Railway officials from Divisional Head Quarter generally arrive at the site of the accident within 2 to 3 hours, depending on the distance of the accident site from the Divisional Head Quarter. Wait for them to come and make further arrangements.
- xvii. Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalization. In case some local people have arrived by that time, their help should be taken in shifting the grievously injured to the nearest hospital.

## **DUTIES OF THE INSTANT ACTION TEAM (IAT) – IN CASE OF A FIRE**

- i. In case of fire, pull the Alarm Chain and stop the train immediately.
- ii. 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, pantry car and Locomotive.
- iii. More people expire due to suffocation from smoke rather than due to actual burning. Advise passengers to take a cloth, wet it by using their drinking water and cover their nostrils and also try to make areas less populated.
- iv. 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.

- v. Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
- vi. Make sure that no passenger lies down on the floor.
- vii. After train has stopped, passengers should come down from the coach immediately.
- viii. Building up confidence of injured passengers by suitable advice is of great importance.

### **DUTIES OF OFFICER-IN-CHARGE (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 minutes time. Once the rescue and relief work by the Instant Action Team has got underway, the OIC site should then enlist the help of First Responders i.e. the local volunteers of the nearby villages.

#### **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.

#### **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.
- iii. The messenger should then try and stop any passing vehicle and go to the nearby village, inform villagers and seek their assistance.

#### **Organizing assistance from local people available in nearby villages;**

- i. Villagers should be asked to make an announcement from their loud speaker (generally available in the local Temple, Mosque, Gurudwara, Church etc). informing others regarding the accident also NGO may be asked to announce the same.
- ii. Everybody should be asked to rush to the accident site with following:
  - a. Tractor trolleys (both for transportation as also for general lighting).
  - b. As many cutting implements/equipments, hammers, chisels etc. as are available.
  - c. Ropes & Ladders.
- iii. If doctors of Para-medical staff are available in the village they should also be requested to attend the accident site.
- iv. The messenger should stay back and try and organize opening of a big building (preferably a school) for sheltering of injured passengers and / or preservation of dead bodies.

==\*=



## (CHAPTER– 6)

### **DISASTER RESPONSE – FIRST RESPONDERS**

#### **Duties of First Responders –**

- (A) **Local People at Accident site:-** It is the duty of the Guard (OIC) to ensure the following:-
- (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 in to separate group 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:-
    - Unconscious.
    - Bleeding excessively,
    - Having breathing problems,
    - Grievously injured,
    - In a state of shock,
    - Having fractures,
    - Simple injured.
  - (x) Dead bodies, if extricated should be kept alongside the coach but away from the track for proper tagging etc. before being dispatched for preservation.
  - (xi) Bodies should be kept in separate lots, coach-wise, so that they do not get mixed up.
  - (xii) Tagging of dead bodies should indicate the coach number and also the cabin number, if possible. (For example ECOR 98127, cabin number containing berths 9-16)

#### **(B) In Villages/Towns at accident site:-**

- (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:
  - Tea and refreshments,
  - 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.

#### **DUTIES OF FIRST RESPONDERS – RAILWAY STAFF:**

##### **Duties of Gang Staff :**

- i. On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- ii. Ensure that track alignments or lines are not disturbed.
- iii. Report to OIC site and assist in rescue and relief work.

- iv. Assist in extricating injured passengers from affected coaches.
- v. Assist in transporting them to nearest hospitals.

**Duties of Gateman :**

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

**Duties of Station Master at adjoining station :**

- i. **Conveying of information :**
  - a. Arrange protection of traffic by keeping all signals at "ON position".
  - b. Report the accident to Station Master at the other end. He should be asked to call all off duty staff at his station and send them to the accident site.
  - c. Report the accident to Section Controller. Control to be advised regarding -
    - \* Time and nature of accident.
    - \* Brief description of accident.
    - \* Adjacent lines clear or not.
    - \* Damage to rolling stock.
    - \* Damage to track in terms of traction posts.
    - \* OHE masts damaged or not, and extent of damage.
  - d. Approximate number of dead and injured (grievous, simple) to be obtained from the TS/TTEs.
  - e. Following functionaries should be advised regarding the accident :
    - \* All off duty Railway staff posted at that station.
    - \* SS of junction stations at either end.
    - \* TI, CMI.
    - \* P.Way/TRD/C&W/S&T Supervisors.
    - \* Inspector/RPF and OIC/SHO/GRP
    - \* Nearest Fire Station personnel.
  - f. Inform civil authorities, village/town/city representatives and volunteers for possible relief assistance.
  - g. Supervisory Station Manager of the nearest Station shall proceed to accident site.
- ii. **Medical assistance :**
  - a. Ask for assistance from local Doctors, Civil, Army Hospitals and St. John Ambulance.
  - b. Arrange adequate number of First Aid boxes, stretchers and wheel chairs.
  - c. Mobilize local medical team and send it to site to render First Aid to the injured
  - d. Quickly transport ARME Scale-II equipment to the site of the accident if available in station.
- iii. **Assistance to Passenger:**
  - a. Arrange drinking water, beverages and refreshments either from Refreshment Room or local sources.
  - b. Supply beverages and refreshments to stranded passengers.
  - c. Open emergency counter and display necessary information at the site.
  - d. Collect information on dead/injured and convey it to OIC /Control whenever asked for.
  - e. Make frequent announcements about diversion, cancellation and regulation of train services.

iv. **Transport assistance :**

- a. Arrange for transport from local resources, if available, for transporting injured passengers to nearest hospitals by fastest possible means.
- b. For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.
- c. Stranded passengers to be transported from the accident spot by arranging transshipment either by train or by hiring road vehicles.

v. **Security assistance :**

- a. Advise RPF/GRP/State Police to provide security to passengers, the belongings and Railway property.
- b. They should also be asked to assist in rescue and relief work.

vi. **Communication Assistance**

- a. Direct passengers to PCO booths available nearby.
- b. Make available STD/mobile phone to relatives of dead/injured where possible.

vii. **Sending manpower for site**

- a. Proceed to site of the accident by quickest means with trolleys, lamps, vendors, porters etc and any other equipment that is considered necessary.
- b. Continue to be in-charge of site and carry out rescue/relief operations till relieved by a Traffic Inspector (TI) or Divisional Officers.

viii. **Preservation of clues and evidences**

- a. TI/SM first reaching the site shall take action to preserve clues and evidences.
- b. Secure records related to accident in the Station/Cabin.
- c. Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.

**DUTIES OF TI/SE(P.WAY)/SE(SIGNAL)/SE(C&W)/SE(TRD)/LI/SE (Power Supply)**

**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.

**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.

**Joint measurements and preservation of clues and evidences**

- i. Sr. Sub-ordinates at site are responsible for measurements and preservation of clues & evidence.
- ii. RPF staffs at site should protect & preserve the clues and evidences.

**First Responder – other than Rly. Staff**

- i. Villagers of nearby village
- ii. Police Barrack nearby
- iii. Army unit nearby
- iv. State / Local Administrative machinery as available nearby.

==\*=

**(CHAPTER - 7)**  
**DISASTER RESPONSE – OFFICERS AT DIVISION & HQ**

**GENERAL**

**Intimation of Accident – Divisional Control Office :**

- i. In the Divisional Control Office, information regarding an accident is generally received either by the Section Controller or the TPC/DPC/TLC.
- ii. In most cases, the First Information Report also intimates the approximate number of coaches involved and a rough estimate of the likely number of casualties (such as “ heavy casualties expected “ ).
- iii. Accidents involving a passenger carrying train where the first information says that heavy casualties are expected, should prima-facie be treated as a Disaster.
- iv. The moment information regarding an accident involving a passenger carrying train is received in the divisional control office, the accident bell in the control room should be sounded for alerting all on-duty functionaries.
- v. After all on-duty functionaries gather around the section control board they will be briefly informed about the accident.
- vi. Each functionary will thereafter resume his position and take steps to set in motion activities required from him.
- vii. TPC will switch off OHE in case it has not tripped. OHE will not be restored even on adjacent line unless confirmation has been received from site that adjacent line is not obstructed and OHE is all right.
- viii. Controller/DPC/TPC will undertake the following action in the given order of priority:
  - Give orders to on duty Crew Controller/ Dy. Chief controller/Section Engineer/ SM for sounding the Hooter for ARMVs / ARTs with crane if required.
  - DPC/TPC will also order movement of ARMV and ART (with 140T crane if required) from adjacent divisions for approaching the accident site from the other end after getting approval from competent authority. Details of ART/ARME in adjacent Railways are given in Chapter- 3, sections 3.3.1 & 3.3.2.
  - Thereafter he will inform his Departmental Officers and Supervisors.
- ix. Dy. CHC(Chg.) will first inform to Hospital regarding Casualty . Thereafter he will inform officers and supervisors of the division with the help of other departmental agencies in control office.

**Intimation of Accident – Railway Doctors :**

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

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

**Intimation of Accident – HQ & Central Control Office**

- i. In HQ Central Control Office also, the accident bell in control room should be sounded for alerting all on-duty functionaries.
- ii. After they gather around the Dy.CHC they will be briefly informed about the accident.
- iii. Each functionary will thereafter resume his position and take steps to set motion activities required of him.

- iv. Each departmental functionary will inform HQ Officers about the accident in the following manner–
 

Dy.CHC(Chg)	-	GM(General Administration), CMD
Dy.CHC(Freight)	-	Operating & Safety.
TPC	-	Electrical Officers.
DPC	-	Mechanical Officers.
Engg. Control	-	Engg., Accounts, Personnel Officers.
S&T Control	-	S&T, Stores Officers.
Commercial Control	-	Commercial, Public Relations.
Security Control	-	RPF Officers.
- v. For this purpose, all functionaries working in the Central control office will have a ready list of telephone numbers (Railway, BSNL and Mobile) of all officers and supervisors of their departments concerned.
- vi. GM will inform CRB regarding the accident.
- vii. PHODs will inform their respective Board Members. In case PHOD is not available in HQ, then the next Senior Most Officer of that department will inform his Board Member.
- viii. CSO/Dy.CSO/SSO(S&T) will inform CRS and nodal Officer of Safety Directorate of Railway Board.
- ix. Dy.CHC(Chg.) will thereafter inform Divisional Control Office regarding running out of 1st Special train to the accident site carrying GM and other HQ Officers.
- x. Functionaries of different departments will also inform their respective departmental officers regarding timing of 1st Special train carrying GM and other HQ. Officers to the accident site.
- xi. In case the accident site is far off and going by air would be faster, then either helicopters or special Air Force planes may be organized from the nearby IAF Base by Secy. to GM.

#### **Informing Non – Railway Officials**

- i. CHC shall inform District Magistrate, Supdt. of Police and CDMOs of the district within which the accident site falls regarding the accident.
- ii. DGM/ADRM shall inform the following regarding the accident :
  - IG/GRP.
  - ADG/GRP.
  - District Commissioner/ District Magistrate.
  - Home Secretary of the state.
- iii. In case POL rake is involved, then IOC/BPC/HPCL officials should also be informed.
- iv. In case Mail bags of RMS are involved, then Postal officials should also be informed.
- v. Telephone numbers of all DMs, SPs, CDMOs and District Commissioners are available in Zonal/Divisional DM Plans.
- vi. Telephone numbers of IOC, BPC and HH HPCL officials are also available in the Zonal/ Divisional DM Plans.
- vii. Telephone numbers of ADG/GRP, IG/GRP, Home Secretary etc. of Orissa, AP and Chattisgarh are given in Annexure 16 to 20.

#### **Divisional Officers required to go to site:**

- i. DRMs/ADRM, MS with his team of doctors and paramedical staffs, Branch Officers – Sr.DME/ DME, Sr.DSO/DSO, Sr.DCM/DCM, Sr.DSC/DSC, Sr.DEE(G), Sr.DEN(Coord), Sr.DEE(TRD) – should move with ARME while AME and other sectional officers of concerned department will move with ART.
- ii. Road vehicles should be sent to accident site separately. Maximum number of road vehicles should be sent to accident site from Divisional HQ.
- iii. ARMV /SPARMV shall be dispatched **within 15 minutes** where there is double exit siding and **within 25 minutes in case of single exit siding** with the first available locomotive

(Power/Engine) after sounding of Hooter. Train ordering officials will order the movement of ARME without delay.

- iv. DRM will proceed to the accident site. ADRM shall stay back at Divisional HQ for co-ordination work.
- v. The Second Senior Most Officer of each branch should stay back at Divisional HQ.
- vi. Once it has become clear that the accident is a Disaster, DRM/ADRM will decide the no of officers required to proceed to the accident site. Similarly, individual branch officer will decide the no of supervisors and staff required at the accident site.

#### **HQ Officers required to go to site :**

- i. The following HQ Officers as detailed at (iv) below will proceed to accident site by the first special train, which will be carrying GM.
- ii. This special train shall be arranged by KUR Divisional Control Office, in consultation with HQ Central Control. Scheduled departure time will be informed to HQ Officers by their departmental functionaries in HQ Central Control.
- iii. GM will proceed to the accident site. COM shall stay back at Zonal HQ for co-ordination work.
- iv. Department wise, designation of officers who are required to go to site, and those who will require to stay back in HQ shall be decided by PHOD/CHOD.

#### **Supervisors required to go to Accident Site:-**

- (i) At the Divisional level 80% of all supervisors available in divisional HQtr: should proceed to the accident site.
- (ii) All other supervisors available in the field at other stations should also proceed to the accident site.
- (iii) Divisional Control Office should issue a recorded control message from DRM to all Supervisors for proceeding to the accident site immediately by fastest possible means.

#### **OPERATING DEPARTMENT**

Duties of the Operating Department in HQ are given in Chapter 11, under the heading “Disaster Response – Co-ordination Centers”.

#### **SAFETY DEPARTMENT**

Sr.DSO/DSO will proceed to accident site along with all other officers and Safety counselors of the Safety Organization. Duties of Safety Organization at accident site has been listed out in 11.2.5, under the heading “ Site Management Plan-I”.

#### **PUBLIC RELATIONS**

Duties of the Public Relations Department are given in Chapter 14.2 under the head of “ Media Management Plan”.

#### **MEDICAL DEPARTMENT**

##### **Formation of two teams**

- i. On receipt of information regarding the accident where casualties are expected, the doctor on emergency duty in the hospital casualty would inform all other doctors and para-medical staff concerned.
- ii. Two teams of Doctors and Para Medical Staff nominated by CMS/MS would be formed, Team ‘A’ and Team ‘B’.
- iii. Team ‘A’ – Headed by CMS/MS in-charge will rush to the accident site immediately by ARMV along with nominated doctors and nominated paramedics.
- iv. Team ‘B’ – Headed by the senior most doctors amongst them will stay back at the divisional hospital and perform duties as given below.
- v. In case the accident site is far away from divisional HQ, then injured passengers are unlikely to be brought back to the divisional hospital for treatment. In that case, only bare minimum

number of doctors should be left behind for manning Team 'B' and most of the available doctors should be rushed to accident site as part of Team 'A'.

### **Duties of Team 'A'**

These are listed in detail in Chapter 11.2.6, under the heading "Site Management Plan-II".

### **Duties of Team 'B'**

- i. Team 'B' will establish an Emergency Cell in the Casualty Unit of Railway Hospital.
- ii. Contact adjoining divisions and organize movement of 2 more ARMVs to accident site, one from each end, as detailed in **Chapter-3, Section (3.3.2)**.
- iii. Contact local hospitals (Railway/Govt./Private) near the accident site and ask them to rush their road ambulances along with necessary medical teams to the accident site immediately.
- iv. Contact local hospitals (Railway/Govt./Private) near the accident site to keep themselves in readiness to receive and provide medical treatment to injured passengers.
- v. Data Bank of medical facilities along the track is available section wise for each division in Divisional DM Plans. Copy of Divisional DM Plans should be available in the Hospital Emergency of Railway Hospital.
- vi. The above Data Bank is also available in the ECoR Website on Railnet at [www.ecor.railnet.gov.in](http://www.ecor.railnet.gov.in). Details of name, address, telephone no., facilities available etc. can be collected from this.
- vii. Arrange to send the following in the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end:
  - As many more medical teams as possible.
  - Adequate number of Safaiwalas other health workers,
  - Members of St. John Ambulance, Scouts and Civil Defence personnel.
- viii. Co-ordinate with MS/CMD of adjoining Divisions/Zones and ask them to send their medical teams to the accident site.
- ix. These medical teams should be sent to the accident site by train/road or combination of train- cum-road, as feasible. In case suitable Railway vehicles are not available, taxis should be hired for this purpose.
- x. Adequate number of following items should be arranged and sent to accident site for the purpose of handling dead bodies :

<input type="checkbox"/> Shrouds	<input type="checkbox"/> Wooden Coffins
<input type="checkbox"/> Polythene covers for dead bodies	<input type="checkbox"/> Dry ice
- xi. One doctor will be available in Divisional Emergency Cell for maintaining liaison with UCC and the medical team at the accident site. Requirement of medicines required either at the accident site, or in various hospitals where patients have been admitted should be noted, procured and sent as required.
- xii. Prepare Railway Hospital to receive and provide treatment to injured passengers, as and when they are brought back from accident site. Arrange to send anti snake venom 4 vials and other items in cold chain carrier.

### **DUTIES OF COMMERCIAL DEPARTMENT**

- i. Sr.DCM should proceed to site of accident along with other Commercial Officers except DCM. DCM will be available in Divisional Control Office for providing backup support.
- ii. A nominated supervisor should be authorized for withdrawing sufficient money from station earnings before proceeding to site.

#### **Transportation of men and material to accident site**

- i. Wherever required sufficient numbers of TTEs/TCs with porters should be sent from the nearest available locations for assisting in transportation of passengers' luggage and rendering other assistance. The commercial officer available at the Divisional HQ (DCM/ACM) should ensure this apart from ensuring the attendance of Commercial Inspector at site.
- ii. Commercial Dept should inform the IRCTC for arranging food packets, drinking water etc to stranded passengers wherever required and monitor the supply of the same.



- iii. Commercial Supervisor at site should arrange for food packets and drinking water etc., till supply of IRCTC reaches site.

### **Help line Enquiry Booths at Stations -**

#### **a. General**

- i. The emergency telephone no. 1072 will be manned round-the-clock by commercial department. All Help line Enquiry Booths shall have a separate DOT telephone with STD, Railway telephones with STD, fax machine, photocopier and a PC with internet connection and the necessary infrastructure will be arranged by S&T Dept.
- ii. Help line Enquiry Booths within ECoR would be opened as below:
  - Originating and destination stations of the accident involved train.
  - All junction stations within the jurisdiction of ECoR falling on the route of the train. Divisional HQ.
  - Zonal HQ.
  - Any other station as may be decided.
- iii. On ECoR, Help line Enquiry Booths would normally be required to be opened at following stations, depending on the route of the accident involved train :
 

Bhubaneswar	Khurda Road	Puri	Cuttack	Brahmapur
Visakhapatnam	Sambalpur	Rayagada	Koraput	Mahasamund
- iv. Help line Enquiry Booths on other Zonal Railways would also be opened as follows :
  - Originating and destination stations of the accident involved train.
  - All junction stations falling on the route of the train.
  - Divisional HQ of originating and terminating divisions.
  - Zonal HQ of originating and terminating Zonal Railways.
  - Any other station as may be decided.
- v. Help line Enquiry Booths would be manned by computer literate Sr. supervisors on round the clock basis.
- vi. Help line Enquiry Booths within the accident affected division, should keep in touch with the Divisional Emergency Cell.
- vii. Divisional Emergency Cell will collect updated information regarding all aspects of the accident from the UCC and pass on the same to:
  - All Help line Enquiry Booths within the Division.
  - Emergency Cells of other Divisions of ECoR.
  - HQ Emergency Cell.
- viii. Such information should be received from UCC by E-Mail and transmitted by E-Mail to all concerned. For this purpose all Help line Enquiry Booths should be provided with PCs with Internet connection. E-Mail addresses of Help line Enquiry Booths will be intimated.
- ix. Similarly, Help line Enquiry Booths outside the accident affected division, but within ECoR jurisdiction should keep in touch with Divisional Emergency Cell of their respective divisions.

#### **b. Accident details to include**

- Number of dead and injured.
- Break up of type of injuries, such as grievous, simple etc.
- Disposal of injured passengers in various hospitals.
- Names of injured passengers.
- Officials in charge of Help line Enquiry Booths would display the list of injured passengers on the notice board. For this purpose Computer printout of E-Mail received should be taken out and displayed at number of places at the station.

- Identification of dead bodies. Reasons for delay should be explained to the public.
- Number of dead bodies identified and their names should be available.
- This information would continue to be updated once in every 3 hrs. and would continue to be accessed for the next 4 to 5 days.

### **Liability of the Railway for compensation**

#### **i. Refunds**

- a. Booking counters at stations should be augmented for granting of refund to large number of passengers who have been unable to either complete or commence their journey as a result of the accident.
- b. Refund of money should be granted for trains as per extant rule :  
 Delayed          Rescheduled  
 Regulated      Short      terminated  
 Diverted      Cancelled
- c. Staff manning Refund counters should be thoroughly familiar with rules for granting of refunds under such circumstances.
- d. Sufficient amount of cash should be available at these Refund counters for this purpose.

#### **ii. Compensation**

The Railways are liable to pay compensation for death/injury of a passenger in train accident as defined under Section 124 of the Railway Act, 1989. Similarly the Railways are also liable to pay compensation for death/injury to a passenger and platform ticket holder in untoward incidents as defined under section 124-A of the Act, such as terrorist attack, violent attack, robbery, dacoity, rioting, shoot out or arson by any person in train or within the precincts of a Railway station or accidental falling of a passenger from train.

The procedure for getting ex- gratia, interim relief and compensation for death/injury of a passenger in train accident/untoward incident is as under –

#### **iii. Ex-gratia**

Ex-gratia relief is given by the Railway administration soon after an accident normally at the rate of:

- Rs. 50,000/- in the case of death;
- Rs. 25,000/- in the case of grievous injury; and
- Rs. 5000/- for simply injury.

Payment is sanctioned and arranged after such enquiries as can be reasonably made on the spot by a Senior Scale or Higher Officer nominated by GM. If the ex-gratia has not been paid to the victim at accident site, the claimant should approach the Chief Claims Officers of concerned Railway.

The ex-gratia is intended to meet the immediate expenses of the victims/and is not taken into account at the time of final settlement of compensation claims.

#### **iv. Death/Injury Compensation**

Claims for compensation for death/injury of a passenger in train accident or untoward incident are decided by Railway Claims Tribunal having jurisdiction over the site of accident.

The Tribunals having jurisdiction over East Coast Railway with their addresses are as follows

Sn	Tribunal	Address	Jurisdiction
1	RCT / Bhubaneswar	Orrisa Forest Development, Corporation Bldg. (2nd Floor), A-84, Kharvela Nagar, Bhubaneswar – 751001.FaxNo.0674-2530140, Off.: 2534835,Asst.Regstrar -8018081190	State of Orissa
2	RCT / Secunderabad	South Lallaguda, Secunderabad – 500017 Fax : 040-7004355, Asst. Registrar -8008404904 Old Rly. Hospital Bldg.,	State of Andhra Pradesh
3	RCT /	E. Rly Colony Sikandry Sarai, Bhopal.	State of Chhattisgarh

	Bhopal	Fax No.0755-2574615, Member Tech. – 2574725, Asst. Registrar – 9752417804.	
--	--------	---	--

**v. Who can claim :**

An application for compensation under section 124 or 124-A may be made to the Claims Tribunal –

- By the person who has sustained the injury or suffered any loss, or
- By any representative duly authorized by such person on his behalf, or
- Where such person is a minor, by his guardian, or
- Where death has resulted from the accident/untoward incident, by any dependant of the deceased or where such a dependent is a minor, by his guardian.
- Every application by a dependant for compensation under this section shall be for the benefit of every other dependant.

**vi. Procedure for filing application**

- The claimant or his agent or his duly authorized legal practitioner should present the application in “ Form II “ in triplicate to the Registrar of the Tribunal having jurisdiction over the place of accident/ untoward incident. The application can also be sent by registered post to the Registrar of the Bench concerned.
- Where the number of respondents is more than one, as many extra copies of the application as there respondents, together with unused file size envelopes, bearing the full address of such respondents, shall be furnished by the applicant.
- The applicant may attach to and present with his application a receipt slip in Form IV which shall be signed by the officer of the Registrar receiving the application on behalf of the Registrar in acknowledgement.
- Every application including any miscellaneous application, shall be typed legibly in double space on one side on thick paper of good quality.

**vii. Particulars required for filing claims in Railway Claims Tribunal**

- Name and father's name of the person injured/dead (husband's name in the case of married woman or widow).
- Full address of the injured/dead.
- Age of the person injured/dead.
- Occupation of the person injured/dead.
- Name and address of the employer of the deceased, if any.
- Brief particulars of the accident indicating the date and place of accident and the name of the train involved.
- Class of travel, and ticket/pass number, to the extent known.
- Nature of injuries sustained along with medical certificate.
- Name and address of the Medical Officer/Practitioner, if any, who attended on the injured/dead and period of treatment.
- Disability for work if any caused.
- Details of the loss of any luggage on account of the accident.
- Has any claim been lodged with any other authority? if so, particulars thereof.
- Name and permanent address of the applicant.
- Local address of the applicant, if any.
- Relationship with the deceased injured.
- Amount of compensation claimed.
- Where the application is not made within one year of the occurrence of the accident, the grounds thereof. Any other information or documentary evidence that may be necessary or helpful in the disposal of the claim.
- One helpline for compensation may be opened.
- HQ Emergency Cell will collect updated information regarding all aspects of the accident from the UCC and pass on the same to:

- Emergency Cells opened on other divisions of ECoR.
- Emergency Cells opened on originating and terminating Zonal Railways. Safety Directorate's Emergency Cell in Railway Board.
- Help line Enquiry Booths should not contact the accident site or the UCC directly.

#### **DUTIES OF MECHANICAL DEPARTMENT :**

- I. Sr.DME as well as AME should proceed to site of accident. DME will be available in Divisional Control Office for providing backup support.
- II. Break Down Spl. without Crane should be requisitioned from adjoining divisions also so that additional rescue equipment such as cutters, spreaders, hydraulic jacks, generators, lighting equipment etc. could be available for rescue operation.
- III. The aim should be to ensure one ART with 140T crane along with one Break Down Spl at each end of the accident site.
- IV. Provision should be made for availability of standby crane Loco Pilot on each ART working at site, so that ARTs can work round the clock.
- V. Road cranes of sufficient capacity should be arranged by Engg. department so that these cranes can start working from the centre while the 140T cranes can continue working from either end.
- VI. Trucks should be arranged for carrying Break Down equipment near to accident involved coaches, so that the site of accident can be approached from the middle, and more work centers can be opened up simultaneously.
- VII. Sr.DME shall order for Crane in consultation with CME/CMPE.

#### **DUTIES OF SECURITY DEPARTMENT**

- I. Sr.DSC will proceed to the site by ARMV along with a maximum number of RPF personnel. Only one officer will stay back at Divisional HQ.

#### **Rushing of men and material to site.**

- On receipt of first information the nearest RPF Post should muster maximum available manpower within the shortest possible time and dispatch them to the scene of accident, by fastest available means.
- Simultaneously, the Post/Outpost in charge would requisition additional manpower from adjoining RPF Posts.
- He should also pass on the information to Local Police and Police Control Room, Local Fire Brigade, hospitals, Local voluntary organizations and the like organizations at the earliest.
- Divisional Security Control shall get reinforcement from neighboring posts/outposts, reserve line, divisional HQ or zonal reserve and send them by the ART. If they could not be sent by the ART then they should definitely be sent by the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end.
- 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. Additional RPF personnel from Zonal HQ should be sent to accident site.
- Additional RPF personnel available throughout the Division should be alerted and sent to the accident site by the 2nd and 3rd special trains carrying backup logistic support of men and material, from each end.
- While sending reinforcement, the Divisional Security Control shall ensure that the necessary equipment required for rescue, recovery and protection of the scene of incident are provided as follows:
  - Torches (1 per person) and other lighting arrangements.
  - Nylon ropes (1 km) and poles for segregating the affected area. 4 loud speakers for making announcements.
  - 10 stretchers and first aid equipment.
  - 10 wireless sets for inter-communication.

- Digital Camera for photographing the scene (both on negative and slide films) **Video recording of rescue and Salvage operations** and connected administrative arrangements.

### **Co-ordination with Local Police**

Maintain constant liaison with IG/GRP and ADG/GRP for following :

- Rushing all available GRP personnel to the accident site.
- Obtaining additional manpower from the local police for purpose of crowd control.
- Issue of necessary instructions to local police for giving expeditious clearance for starting
- Restoration work.
- Issue of necessary instructions to SP of the district for waiving off formalities of Post Mortem on dead bodies.

### **DUTIES OF ELECTRICAL DEPARTMENT**

- I. Sr.DEE(G)/DEE(G) should proceed to accident site and AEE(G) should man the Divisional Control Office for providing backup support. In absence of AEE(G) Senior Most Section Engineer(G) should man the Control Office.
- II. Sr.DEE/TRD as well as AEE/TRD should proceed to site of accident. DEE/TRD or AEE/TRD will be available in Divisional Control Office for providing backup support.
- III. Similarly, Sr.DEE(OP) should proceed to site of accident and DEE(OP)/AEE(OP) will be available in Divisional Control office for providing back up support.
- IV. Main responsibility of Electrical Department will be regarding site illumination with portable generator sets, portable inflatable tower lights, disconnection and slewing of OHE. In case of scarcity of generator sets the same may be hired from nearby village or town.
- V. Maximum number of electrical staff should be sent by 2nd and 3rd Special trains for installation and operation of electrical equipment.
- VI. Officers staying back in divisional HQ Shall maintain constant liaison with site and find out quantum of assistance required by way of men and material.
- VII. These should be rushed to accident site either from :
  - a. Railway sources within the division, or
  - b. Railway sources from adjoining divisions and zones, or
  - c. Non-Railway sources within the division and adjacent to Divisions.
- VIII. Site illumination through Generator sets of ART / ARME / SPART / SPARMV by Halogen lamps.
- IX. Incase of scarcity of Generator sets, Generator sets to be hired from nearby village/Town and fuels to be arranged from outside.
- X. Illumination through inflated tower lights.
- XI. Temporary illumination through availing LT Power Supply from nearby licensee if practically possible.

### **DUTIES OF SIGNAL & TELECOMMUNICATION DEPARTMENT**

- I. Sr.DSTE as well as ASTEs should proceed to site of accident. DSTE will be available in Divisional Control Office for providing backup support.
- II. Main responsibility of S&T Department will be for providing effective and adequate means of communication.
- III. Provision of portable telephone to be connected directly to Sectional Control through emergency socket.
- IV. Provision of auto telephone of nearest Rly exchange through DM pairs at emergency socket.
- V. Provision of communication through satellite telephone.
- VI. BSNL telephones to be provided.

#### **A. Rushing of men and material to site -**

- Sr.DSTE along with ASTE will carry the following to the accident site:

- Satellite phone,
  - FAX cum printer,
  - Two 25W VHF sets along with antenna and battery,
  - 10 numbers 5W walkie-talkie sets.
- He will be accompanied with at least one TCI and two TCM/WTM.
  - 2 more TCI (SE/JE- Tele) /TCM, SIS (SE/JE-Signal) of the section and maximum number of telecom staff should be sent for installation and operation of telecom equipment. They should go to the site of accident either by ART or latest by 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end.
  - Satellite phones of HQ and nearest division and one FAX machine will be carried in GM special by at least one TCI and one TCM/WTM.
  - All mobile phones available with the ARME/ART should also be rushed to site for emergency use.
  - Sufficient number of spare batteries and battery charges for these mobiles should also be taken to accident site.

#### **B . Arranging communication at site-**

- DSTE in the division will immediately come to divisional control office and ensure setting up of all communication arrangements as required
- DSTE will keep a record of the numbers of Railway telephones, BSNL telephones, IMMERSAT phones provided at site and telephones provided at Help line Enquiry Booths. This information shall be passed on to the Divisional Emergency Cell.
- He should liaison with BSNL officials in the area for immediate provision of additional BSNL telephone/ hot lines at the accident spot, nearest station and at Help line Enquiry Booths duly utilizing assets under his disposal where required.
- Map of the division showing areas where cell phone connectivity is operative is available in Divisional DM Plans.
- Should procure along with connecting a minimum of 06 nos cell phones for each division and send them to accident site.
- Obtain E-Mail addresses of Emergency Cells set up on other Divisional and Zonal HQ.

#### **C. Communication at HQ And Divisional Emergency Cells**

- Communication arrangements are required to be provided at ECoR HQ Emergency Cell immediately permanently.
- 02 BSNL Telephones having ISD/STD facility are already available in the HQ Central Control. Dynamic locking code of the telephone is available with CHC/Emergency. FAX machine is also provided on 01 BSNL telephone in the Emergency control.
- Apart from this telephone, 04 other BSNL telephone numbers (02 with STD facilities) should be made available in HQ Emergency Cell for use by Chief Emergency Officer.
- One FAX machine shall be provided on one BSNL telephone.
- 02 Railway telephone numbers with STD facilities should also be made available. 02 Mobile telephones should also be made available in HQ Emergency Cell.
- Similar Communication arrangements should also be provided in the Divisional Emergency Cell. 02 (two) Laptop/Desktop or Tablets with dongle may be kept in operation for communication & interaction.

#### **D. Communication at Help line Enquiry Booths**

- Help line Enquiry Booths are to be opened at all important stations enroute of the affected train as mentioned at Section (7.6.2- iii) above.

- Location of these Help line Enquiry Booths will be on Platform No.1 of their respective stations. 02 BSNL phones should be identified and kept pre-wired to the Help line Enquiry Booths so that these can be energized at short notice.
- Similarly, 02 Railway phones should be identified and kept pre-wired to the Help line Enquiry Booths so that these can be energized at short notice.
- One Scanner and PC with Internet connection and printer should also be provided at Help line Enquiry Booths. These should also be kept pre-wired so that these can be energized at short notice.
- E-Mail address of PCs to be provided should be intimated to all concerned. PCs should be configured with these E-Mail addresses as given at Annexure- 34
- Stations at which such arrangements are to be made and telephones which are to be utilized should be identified by Sr.DSTE with approval of DRM.

## **DUTIES OF ENGINEERING DEPARTMENT**

### **Rushing men and material to accident site**

- Sr.DEN(Co-Ord) and Sr.DEN/DEN concerned will proceed to the site of accident by self propelled ARMV/ART. In the absence of Sr.DEN(Co-Ord), the next senior most Sr.DEN of the Division will proceed along with the concerned Sr.DEN/DEN. In the absence of Sr.DEN/DEN of the Section, Sr.DEN/DEN of the adjoining Section will proceed by ARMV or self propelled ARMV.
- It is expected that AEN and SE(P.Way) of the Section would have already reached the accident site before arrival of ARMV/ART. In cases, where the SE(P.Way) and AEN are based at Divisional HQ, they should move along with staff by ART. At least, two SSE/Works and one SSE/Bridge should move along with their staff by the ART.

### **Mobilization of work force**

- Sr.DEN (Co-ord) with consultation with Section Sr.DEN/ DEN will mobilize required no of workman and supervisors as per information received from the site of accident regarding extent of damage to track and other P.Way and Bridge. Earth moving equipments should also be requisitioned as per requirement.
- ½ km of rails, sleepers and fittings and one set of 1 in 12 and 1 in 8 ½ turnouts are available in the ART. The Mechanical and Operating Departments will ensure that part 'C' of ART (consisting of additional Engineering Material Wagons) shall follow the ART. The additional half km of matching materials and one set of 1 in 8 ½ and 1 in 12 turnouts shall be kept in the Track Depot of the Division. For loading of this material, 2 BFRs and 2 BCN wagons should be immediately placed in the Track Depot. These materials should be loaded within 3 hours and dispatched to the site of accident. This will be ensured by the SSE(P.Way) Track Depot and Divisional Engineering Control.
- At least two nos. of JCBs available with the ballast depot contractor shall be immediately moved.
- Sr.DEN/ DEN in Divisional Emergency Control will request concerned authority (Army/State Govt. Deptt.) for Bulldozer/ Earthmoving machinery in the area.

## **7.12. DUTIES OF IT DEPARTMENT**

- One separate room in HQ, named “ Disaster Management Room”, which will be used as Emergency Cell and should be provided with minimum 02 PCs.
- Both PCs should be connected to Rail net and the E-Mail addresses already configured into them should be activated.
- Similarly 2 PCs in divisional control office nominated for being used in Divisional Emergency Cell should also be shifted there.
- Both these PCs should be connected to Rail net and the E-Mail addresses already configured into them should be activated.
- PCs in various Help line Enquiry Booths at different stations should all be made functional connected to rail net and made ready for receiving and sending E-Mails.

- Following information should be uploaded on to ECoR's Website as quickly as possible :
- a) List of injured and deceased passengers
    - Names of stations where Help line Enquiry Booths have been opened along with their telephone numbers.
    - Accident details would include, number of injured passengers rescued. Break up of type of injuries, such as grievous, simple etc.
    - Disposal of injured passengers in various hospitals.
    - Names of injured passengers – coach wise & if possible destination also.
    - Number of dead bodies recovered– coach wise & if possible destination also.
    - Number of dead bodies identified– coach wise & if possible destination also.
    - Names of deceased passengers– coach wise & if possible destination also.
  - b) Details of trains which have been diverted, regulated, short terminated, cancelled or re-scheduled.

==\*=



## (CHAPTER - 8)

### **DISASTER RESPONSE – CO-ORDINATION CENTRES**

#### **GUIDELINES FOR MOVEMENT OF ARMVs & ARTs TO ACCIDENT SITE INCLUDING SPARMV / SPART.**

Movement of ARMV and ART should never be clubbed together. ARMV should be started first and moved separately for faster movement.

ARMVs and ARTs should be dispatched from the base station, within the target time stipulated. Departure of ARMVs and ARTs should not be delayed on any account including arrival of doctors/ officers. Anybody who is left behind can proceed later on either by GM special or by next special train or even by road.

ARMVs must be run out within the target time, even without full complement of doctors, if necessary. This will ensure that other doctors who are available at accident site can utilize facilities of ARMV after its arrival at site. During run discussion & decision to be taken initially for work distribution or on availability of 1st opportunity before action.

ARMVs and ARTs should be moved on top priority taking precedence over all other trains. They should not be stopped anywhere en-route for picking up any one.

Running lines of adjoining stations on either side of the accident affected block section should be kept clear of all trains for shunting of ART/ARMV and evacuation of affected portion of the train. In case there are any stabled loads, the same should be lifted, if possible.

Running of ARMVs and ARTs in accident site:-

- (i) After ARMVs and ARTs have been ordered, DPC should locate diesel powers for these ARMVs and ARTs.
- (ii) First available diesel powers should be nominated, even by temporarily detaching from a Mail/ Express train on run, if necessary.
- (iii) If diesel power is not readily available and OHE is functional up to the next junction station, then ARMVs and ARTs should be moved out by Electric loco and diesel powers can be changed en-route.
- (iv) In case a diesel power is not available on the Division, then it should be requisitioned from adjoining divisions.

#### **DIVERSION, REGULATION, SHORT TERMINATION, CANCELLATION AND RESCHEDULING OF MAIL / EXPRESS / PASSENGER TRAINS**

The moment information is received about the accident, all Mail/Express trains on run towards the accident involved section should be stopped. They should not be advanced beyond the last Junction station or at major stations from where they can be diverted or suitably controlled/ terminated.

They should be regulated at convenient stations before a decision is taken regarding their further movement. This decision should normally be taken within the next one hour.

Trains should preferably be regulated at stations where food can be arranged.

However, too many trains should not be simultaneously brought to a Jn. Station for regulation, since it may create law and order problems.

Passenger trains can be run out to the next convenient location and thereafter terminated so that their rakes are available for use.

HQ Emergency Cell shall decide on the following in consultation with adjoining Railways and Coaching Directorate of Railway Board :

Diversion,	Cancellation,
Regulation,	Re-scheduling.
Short termination,	

The above decision regarding diversion etc. should be taken in about one hour time after ARMVs, ARTs & GM special have been run out and there is a slight lull in the information flow.

As far as possible, trains which are already on run should be diverted. They should not be short terminated, since this will create problem of dispersal of passengers.

Trains should be diverted from the last possible Jn. Station onwards so that maximum number of passengers can detrain at their proper destination stations.

Sr.DME/Sr.DEE(Op) would be in-charge of co-ordination with Operating department regarding requirement and availability of crew deployment.

Sr.DME/Sr.DEE(Op) will take into consideration changing traffic requirement because of diversions etc. and accordingly plan crew deployment.

Adjoining divisions should be informed about these diverted trains so that spare crews can be sent to interchange points.

For diverted trains, Loco Pilots and Guards having necessary road learning should be arranged.

Loco Pilots nominated for working these diverted trains should be empanelled for working Mail/ Expresses as per Railway Board's instructions, if available on roster.

Crews should also be planned for diesel engines sent to the accident site working ARMVs, ARTs, other special trains and likely to be held up there for next 2-3 days.

### **Running of Special trains**

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

#### **03 Coach SP-ART/ARMV.**

- i. Two SPART/ARMV from each end.
- ii. Two additional 3 Coach SP-ART/ARMVs from adjoining divisions, one from each end.

#### **ARTs.**

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

#### **Setting up Emergency Cells in Divisions :**

- i. Divisional Emergency Cell shall be opened immediately after receipt of information of the accident at Divisional Control Office.
- ii. This unit will exercise control, co-ordinate and arrange supplementary assistance to the accident site.
- iii. It shall function in a separate cubicle at Divisional Control Office provided with centralized communication networks, hot line to the site and HQ
- iv. Sr. DOM will be over all in charge of the Divisional Emergency Cell and will function as the Divisional Emergency Officer for the purpose of managing relief and restoration operations from Divisional level.
- v. In case Sr. DOM is not available, DOM will be the Divisional Emergency Officer.
- vi. In case both officers are not available, any other officer nominated by DRM will take over charge.
- vii. Requirements of all departments for movement of men and materials to the accident site shall be conveyed to the Divisional Emergency Officer, who shall arrange their movement.
- viii. Timings of 2nd and 3rd special trains to be moved from each end to the accident site, carrying backup logistic support will be conveyed to all concerned beforehand.
- ix. Divisional Emergency Cell will maintain:
  - Telephone and FAX numbers of the accident site. These should be maintained functionary wise for each functionary available in the UCC.
  - Similarly telephone and FAX numbers of functionaries available in CAC should also be available with the Divisional Emergency Cell.
  - Telephone and FAX numbers of Help line Enquiry Booths that would have been set up at various stations on the division.
  - E-Mail addresses of UCC, Help line Enquiry Booths and HQ Emergency Cell. E- Mail addresses of some of them are given in Annexure- 34
  - Names and phone numbers of hospitals where injured have been admitted/shifted, along with number of patients.
- x. Divisional Emergency Cell will collect updated information regarding all aspects of the accident and pass on the same either telephonically or by E-Mail to:
  - All Help line Enquiry Booths within the division.
  - HQ Emergency Cell.
  - Divisional Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook.

#### **Setting up Emergency Cell in HQ**

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

Telephone and FAX numbers of Help line Enquiry Booths that would have been set up at various stations on adjoining zones.

E-Mail addresses of UCC, CAC, Help line Enquiry Booths and Divisional Emergency Cells set up on other Divisions of ECOR.

E-Mail addresses of Emergency Cells opened on train origination terminating Divisions & Zones and Safety Directorate Emergency Cell in Railway Board.

Names and phone numbers of hospitals where injured have been admitted/shifted along with number of patients.

- vii. HQ Emergency Cell will collect updated information regarding all aspects of the accident and pass on the same either telephonically or by E-Mail to:
  - Emergency Cells opened on other Divisions of ECOR
  - Emergency Cells opened on originating and terminating Zonal Railways
  - Safety Directorate's Emergency Cell in Railway Board
- viii. HQ Emergency Cell will monitor movement of ARMVs/ARTs etc. coming from adjoining Zones/ divisions.
- ix. Assistance from Defence, Para military establishments, State Govts. should be coordinated by HQ Emergency Cell as and when required. Officials to be contacted and their telephone numbers are indicated in Annexure -5-21.
- x. Chief Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook.
- xi. SDGM/CPRO shall monitor various important media channels to keep track of media reporting, Suitable corrections/clarifications may also be issued, if required.

#### **Manning of Divisional/HQ Emergency Cell in shift duty**

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

#### **Liaison with Railway Board**

HQ Emergency Cell will maintain constant liaison with Safety Directorate's Emergency Cell in Railway Board regarding following activities:

- i. Movement of additional ARMVs and ARTs from adjoining zones.
- ii. Movement of additional diesel powers from adjoining zones.
- iii. Diversion, Regulation, Short termination, Cancellation and Rescheduling of Mail/Express trains.
- iv. Arrangement of men and material as required from adjoining zones and their expeditious movement.
- v. Opening of Help line Enquiry Booths on other Zonal Railways as follows: Originating and destination stations of the accident involved train.  
All junction stations falling on the route of the train. Divisional HQ of originating and terminating divisions. Zonal HQ of originating and terminating Zonal Railways. Any other station as may be decided.

- vi. Movement program for visit of MR/ MOSR, CRB and other Board Members to the accident site.
- vii. Assistance required from Defence, Para Military organizations, State Govts. Should be conveyed to Railway Board who shall coordinate the same.
- viii. 3 hourly progress reports on the rescue and relief work shall be communicated to Safety Directorate's Emergency Cell in Railway Board.

**Duties of Additional Divisional Railway Manager;-**

- i. Undertake making of announcements over local TV channel and Cable network.
- ii. Ensure that functionaries of different departments in Divisional Emergency Cell carry out duties assigned to them as per Zonal DM plan.
- iii. Monitor movement of assistance from other divisions/zones.
- iv. Co-ordinate with State Govt.
- v. Co-ordinate with Defence and Para Military authorities.
- vi. Monitor various important media channels to keep track of media reporting. Suitable corrections/ clarifications may also be issued, if required.

=\*=

**DISASTER RESPONSE ASSISTANCE FROM ADJOINING DIVISIONs / ZONEs / DMAs****Assistance from National Disaster Response Force (NDRF)**

The Disaster Management Act, 2005 has made the statutory provisions for the constitution of the National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters.

According to Section 45 of the Act, the National Disaster Response Force has to function under the general superintendence, direction and control of the National Disaster Management Authority (NDMA) and under command and supervision of Director General, NDRF. Though the units of this Force were nominated in 2003, it is only after the establishment of NDMA that their training and equipping were vigorously pursued. NDRF is a specialist force and is gradually emerging as the most visible and vibrant multi-disciplinary, multi-skilled, high-tech force of the NDMA capable of dealing with all types of natural and man-made disasters.

**Present Organization:-**

At present, National Disaster Response Force (NDRF) consists of eight battalions, two each from the BSF, CRPF, CISF and ITBP. Each battalion will provide 18 self-contained specialist search and rescue teams of 45 personnel each including engineers, technicians, electricians, dog squads and medical/paramedics. The total strength of each battalion is approximately 1,149.

All the eight battalions are being equipped and trained to combat all natural disasters including four battalions in combating nuclear, biological and chemical disasters.

Raising of two more NDRF battalions at Patna (Bihar) and Guntur (Andhra Pradesh) has been approved by the Government and NDMA has initiated necessary action for the same.

**Location of NDRF Battalions (Bn)**

These NDRF Battalions are located at eight different locations in the country based on the vulnerability profile to cut down the response time for their deployment. During the preparedness period or in a threatening disaster situation, proactive deployment of these forces will be carried out by the NDMA in consultation with state authorities. The present location of NDRF Battalions are as follows:-

SN	NDRF (Bn)	State	CPF
1	NDRF Bn. Greater Noida	Uttar Pradesh	ITBP
2	NDRF Bn. Bhatinda	Punjab	ITBP
3	NDRF Bn. Kolkata	West Bengal	BSF
4	BDRF Bn, Guwahati	Assam	BSF
5	NDRF Bn, Mundali	Odisha	CISF
6	NDRF Bn, Arakkonam	Tamilnadu	CISF
7	NDRF Bn, Pune	Maharashtra	CRPF
8	NDRF Bn, Gandhinagar	Gujrat	CRPF
9	NDRF Bn, Patna (under-raising)	Bihar	BSF
10	NDRF Bn, Guntur (under-raising)	Andhra Pradesh	CRPF

NDRF has highly skilled rescue and relief operations, regular and intensive training and re-training familiarization exercises within the area of responsibility of respective NDRF Bns, carrying out mock drills and joint exercises with the various stakeholders.

NDRF is capable of handling disaster of earthquake, floods, building collapse, cyclones, tsunami, chemical & biological disaster, even landslide or complete washout of Rail line.

The key to efficient disaster response will depend primarily on effectiveness of training and raising of specialized Disaster Response Forces. With this vision a detailed “Training Regime for Disaster Response” has been prepared by NDMA/NDRF identifying the specific disaster response

training courses and devising a unified, structured and uniform course module as well as syllabus for these training courses. The proposition behind a unified, structured, uniform course module and syllabus is that first the entire NDRF battalions will successfully attain these courses and subsequently the State Disaster Response Forces (SDRF) and other stakeholders will be trained on the same lines., the need of uniformly structured course module emerged out of the fact that if all the NDRF battalions and other 'first responders' undergo the same training exercise, the coordination between different stakeholders would be expedient and well planned at the time of any major disaster where different NDRF battalions, SDRF battalions and other stakeholders will be working together in close coordination with each other.

NDRF personnel are invariably trained in courses like Flood Rescue, collapsed Structure Search and Rescue, Medical First Responders, Rope Rescue, Nuclear, Biological , Chemical Emergencies, Dignified Disposal of Dead Bodies etc.

Training being one of the most important attributes for an efficient force, Government of India has recognized the recommendations of NDMA for setting up an apex National Institute of Excellence for Search and Rescue at a central place like Nagpur to provide training of trainers and to meet other national and international commitments. Also a network of ten outreach centres at the respective NDRF Battalion locations are proposed to be set up.

One of the most important tasks of NDRF is to continuously engage themselves in the Community Capacity Building and Public Awareness programmes in a big way which includes training of people (the first responders) and concerned government officials at different levels in the areas with high vulnerability. Along with Community Capacity Building and Public Awareness exercises NDRF is also actively engaged in area familiarization exercises. Such exercises provide first-hand knowledge about the topography, access route to various disaster prone areas, availability of local infrastructure/logistics which can be used in disaster response operations.

NDRF also conducts regular mock exercises on various disasters like cyclone flood earthquake, NBC emergencies, mass casualties management etc. participation in such exercise on the hand improve the professionalism of NDRF personnel to tackle the real emergency situation and on the other provides an opportunity to interact with various state Government officials and to develop cordial relations with them that can be of great help during response to actual disasters.

#### **NECESSITY OF ASSISTANCE FROM ADJOINING DIVISIONS / ZONES**

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

#### **ASSESSMENT OF ASSISTANCE FROM ADJOINING DIVISIONS / ZONES**

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

## SCALE OF ASSISTANCE FROM ADJOINING DIVISIONS / ZONES

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

Threshold level 100 to 150 Injuries		150 to 200	above 200 Injuries
No. of teams	1 team	2 teams	3 teams
ARMV/SPARMV	2	2 + 1	2 + 2
140 T crane	2	2 + 1 BD	2 + 2 BD

- iii. Complement of staff in each team sent by adjoining divisions/zones will be as per norms given below:

Officer in charge	Senior Scale
Doctors	5
Para – medical staff	10
Commercial officers	2
Commercial supervisors	10

## ASSISTANCE FROM DEFENCE & PARA MILITARY FORCES

Assistance should be sought from nearest army & para-military establishments, NDRF, ODRAF and OSDMA.

Railway staff no matter how dedicated and loyal, are not experts in extricating dead bodies, handling injured passengers & their evacuation etc.

In case of assistance required from the nearest NDRF unit, should be requisitioned through NDMA, New Delhi by DRMs/GMs.

Army has the necessary expertise and are trained and equipped to handle such a war like situation.

Therefore, Divisional/Zonal HQ should get in touch with the nearest army command and request for necessary assistance.

Selected telephone numbers of Army and Para-military establishments are given in Annexure-25.

Additional telephone numbers of Army are given in Divisional DM Plans.

## DEPARTMENTAL ASSISTANCE FROM ADJOINING DIVISIONS / ZONES.

### S&T Department:

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

### Electrical Department

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

### Civil Engineering

- i. Additional workmen are required who are to be moved from adjoining divisions/zones.
- ii. Each such division sending assistance should move 250 men along with 5 artisans and 5 SE(P. Way). One DEN and one AEN each should also move to the site of accident from each such Division.

==\*==



## (CHAPTR-10)

### **SITE MANAGEMENT PLAN - I**

There are 2 aspects of Disaster Management work at an accident site. Rescue, relief and restoration operation, which is carried out by one set of functionaries.

Aspect pertains rehabilitation of accident involved passengers, taking care of dead bodies, dealing with their relatives etc. for which a different set of functionaries are required. For managing these 3 distinct aspects of DM work that are required to be discharged by Railways, three separate establishments should be set up at an accident site. The outline schematic plan of accident site given at Annexure- 2. Transportation of stranded Passengers.

#### **10.0.1 RECEPTION AND DISPATCH CENTRE (RDC)**

Reception and dispatch centre will be located at the entrance way to the site of accident. The size of the Shamiana should be of Appox. (15x10) ft with a banner (**Reception And Dispatch Centre**) fixed on the top. Senior Supervisors/SSE of Mech. & Medical department will man the centre.

They shall register /facilitate/co-ordinate the arrival /activity/departure of non –railway organizations like NDRF, ODRAF, Civil authorities, GRP, State fire service, State Medical Team, NGOs and such other organization.

They will log the details of team reporting the centre such as name of organisation, details of team, details of equipment and direct them to OIC of the site.

They will also register /facilitate /co-ordinate movement of ambulances / injured persons to local hospitals as per the direction of the OIC of the site.

#### **UNIFIED COMMAND CENTRE (UCC)**

Unified Command Centre (UCC) should be set up at the accident site under the overall coordination of Mechanical Department.

This will be some kind of a control office to be located near the centre of the accident site.

This is basically meant for catering to operational needs of Railway in rescue, relief and restoration work.

Detail schematic plan of UCC is given at Annexure – 2.

UCC is to be manned by staff of relevant departments such as : Medical, Commercial, Personnel, Operating, Safety, Security, Public Relations, Mechanical, Electrical, S&T and Engineering.

UCC will be provided with all facilities similar to a control office.

Adequate lighting with generator backup should be provided in the UCC.

Adequate number of telephonic links to Divisional Emergency Cell and HQ Emergency Cell should be provided. Preferably each department in the UCC should be given as independent telephone including satellite telephone, fax, photo copier, PCs and loud speaker.

PC/Laptop should be connected to Internet for E-Mailing of detail update to all concerned, including Divisional Emergency Cell, HQ Emergency Cell and Help line Enquiry Booths.

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.

UCC at the site will be manned by Sr. Supervisors on round the clock basis in 12 hrs. shift duty and they will monitor & co-ordinate working of their departments.

Various functionaries in the UCC will monitor and co-ordinate the working of their departments, and assistance required by them, if any.

Each functionary at the UCC will maintain a log book. Flow of information both incoming and outgoing would be recorded along with the time and names of officers/staff who were given the message.

UCC will basically supervise the working of 2 LCCs and coordinate with Divisional and HQ Emergency Cells.

Functionaries of different departments in LCCs should provide updated information regarding progress of work to their counterparts in UCC.

### **LOCAL COMMAND CENTRES (LCC)**

Depending on the spread of the accident site, Local Command Centres (LCC) on the same pattern as the UCC should be set up.

If the site is spread out over 300 – 400 mts. 2 LCCs should be set up.

Detail schematic plan of LCCs would be similar to that of UCCs as given at Annex-2.

Representatives of same departments as in UCC should be present in LCCs

also. However, they should be either one or at most 2 men per department. It will co- ordinate various teams spread out over the site of accident.

Each LCC will oversee the working of DM teams at one end of the accident site.

Jurisdiction of each LCC will extend to all men and materials belonging to 2 ARMVs, BD special and 1 ART at that end of the accident site.

One SAG officer of Mechanical department will be overall in charge of each LCC with loud speaker for making announcements and direct telephone link with UCC.

### **10.3.0 NEED FOR SETTING UP OF CENTRAL PASSENGER ASSISTANCE CENTRE**

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

### **ASSISTANCE TO BE RENDERED TO THE RELATIVES OF PASSENGERS**

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

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

### **ASSISTANCE TO BE RENDERED TO THE RELATIVES/NEXT OF KIN OF DEAD PASSENGERS**

They are to be given the following assistance :

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.

Take a round of various rooms where bodies have been kept, examine each body and try to locate their near and dear ones.

Identify the dead body, if the same has been extracted by them.

Otherwise wait for all bodies to be extracted and try and identify their relative.

In case they fail to identify the same then they have to go through photographs of unidentified bodies taken at site.

After the body is finally identified, they have to produce proof of relationship for Railways to entertain their claim.

Obtain medical death certificate from the Railway doctor.

Obtain post mortem report, from the Govt. doctor who has performed post-mortem on the body.

Obtain official death certificate from the local municipality.

Accept of ex-gratia payment from Railways.

Collect forms for lodging claim for compensation from Railway Claims Tribunal.

Take over custody of dead body from the local Police.

Perform last rites at the same place or take back the body to their native place, depending on circumstances.

Make arrangements for their return journey back to their native place.

### **COMBINED ASSISTANCE CENTRE (CAC) :**

The UCC should have a Central Passenger Assistance Centre (CPAC) located towards the rear side, away from the track for rendering help to passengers and their relatives. Outline schematic plan of UCC/CAC is given at Annexure-2.

This is basically meant for catering to requirements of passengers and their relatives/next of kin, and for providing a single window clearance for all types of formalities.

CAC should be separated from the UCC so that it does not interfere with normal rescue and relief work.

Detail schematic plan of CAC is given at Annexure-3.

CAC will be manned by staff of respective departments such as: Operating, Medical, Commercial, Security & Personnel

There should be only one such CAC, and all Railway resources should be pooled into it. CAC will be manned by staff of relevant department such as :

- Operating
- Medical
- Commercial
- Security
- Personnel

A big banner displaying 'COMBINED ASSISTANCE CENTRE' should be put up at a prominent place at the entry to the shamiana.

Different counters should be provided in sequence for each of these formalities, so that the entire exercise can be completed in about an hour.

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.

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 WI 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. Officer – in – Charge of CAC to supervise the CAC.
- vii. Municipality official for issue of Official Death Certificate.
- viii. Local police for issue of authority for handing over of dead body.
- ix. Claims counter – Payment of ex-gratia and issue of Claims Compensation form.

- x. Counter for helping performance of last rites in case relatives decide to cremate the body there itself.
- xi. Pass counter for issue of return journey pass.
- xii. Return journey facilitation counter for making arrangements for return journey.

### **FIRST AID POSTS**

Medical Posts should be provided in both UCC and CAC.

Medical Post in UCC will provide first aid to injured passengers after extrication, assess their injuries and make arrangements for sending them to nearby hospitals.

Medical Post in CAC will keep all records of injured and dead passengers, names of hospitals where they have been admitted etc.

First Aid Posts should be provided in LCCs.

This will mean for treating passengers and classifying their injuries before they are sent for admission to various hospitals.

### **SETTING UP OF UCC, LCC ,CAC& RDC**

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 tentage accommodation after taking out tents and shamianas provided in ARTs.
- iii. In addition, he should also requisition to agencies which provide tentage accommodation on contract. Details of such agencies have been given in Divisional DM Plans.

Bridge Line staff will assist in setting up tentage and above mentioned facilities. DEN/ADEN/Bridge will also move to the site and in case, bridge is not involved in the accident, he will take full charge of tentage arrangements.

Bridge Unit will take with them sufficient Manila ropes, wires, 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.

Sufficient facilities for erecting temporary stage/scaffolding etc. should also be organized, if required at site.

Few temporary toilets should be provided at one location in addition to number of urinals at 3 or 4 places with adequate disinfectant.

Water tankers will be ordered for supplying water at site and arrangements shall also be made for drinking water.

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.

Adequate no of table and chair should also be arranged (at least 150 nos of chairs and 40 nos of tables). Additional furniture to be provided as per site requirement and as advised by officer in charge.

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.

Signages for both UCC and CAC should be provided at prominent locations.

### **NUMBER OF DEAD AND INJURED BY MEDICAL DEPARTMENT**

Medical department at site should confirm the number of dead.

Doctors in charge of various teams working on different coaches should give 03hourly report to Medical counter in LCC who in turn will inform UCC, CPAC and others.

Number of injured passengers.

Type of injuries, whether grievous, minor or trivial.

Names of injured, and names of various hospitals where injured have been sent.

### **IDENTIFICATION OF DEAD BODIES –COMMERCIAL DEPARTMENT**

Number of dead bodies identified.

Ex-gratia paid to injured and next of kin of the dead. 10.10.3 No. of dead bodies handed over to relatives.

#### **NUMBER OF COACHES DEALT WITH – MECHANICAL DEPARTMENT**

No. of coaches thoroughly searched.

No. of coaches made off track.

No. of coaches yet to be dealt with.

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's should in turn update the UCC regarding the latest progress. This updated information would be conveyed to Divisional Emergency Cell every 3 hrs.

**(a) 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 hrs. report to Medical counter in LCC who in turn will inform UCC.
- (iii) Number of injured passengers.
- (iv) Type of injuries, whether grievous, minor or trivial.
- (v) Names of injured, and names of various hospitals where injured have been sent.

**(b) Identification of dead bodies – Commercial Department:-**

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

**(c) Number of coaches dealt with – Mechanical department. (Same as above 10.9.10.11)**

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

= \* =

## (CHAPTER – 11)

### SITE MANAGEMENT PLAN – II

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

#### **MEMBERS OF THE DISASTER MANAGEMENT TEAM :**

##### **Disaster Management Team normally comprises members of following departments**

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

#### **Officer-in-charge of Site (OIC Site)**

On arrival of ARMV at accident site DRM shall take over as OIC Site from the senior-most officer of the accident involved train. On arrival of 1st Special train carrying GM and other HQ Officers, GM shall be OIC Site. In the absence of GM, the senior most 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.

#### **Rescue, Relief and Restoration Operation**

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

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

#### **Photography**

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

- i. Severity of the accident.
- ii. Illustrate the damage to P.Way. Rolling Stock, Signal, OHE and other structures and equipments.
- iii. Separate set of photographs to be taken to preserve clues and evidence of sabotage if suspected.
- iv. Victims and unidentified bodies should also be extensively photographed as detailed in (11.2.1) (xii) below.

## **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:

### **OIC Site**

- i. Ensure setting up of UCC, CAC and LCCs at the earliest.
- ii. Collect information from OIC Site of IAT.
- iii. Take stock of the situation and plan for efficient rescue operation.
- iv. Estimate quantum of assistance required for each department from:

Within the division,	Adjoining zones
Adjoining divisions of ECoR	Non-Railway agencies.
- v. Channelise local resources to supplement available Railway resources.
- vi. Ensure that duties of various functionaries of different departments as laid down in ECoR's Zonal DM Plan are carried out.
- vii. Ensure co-ordination among all departments for efficient rescue, relief and restoration operation.
- viii. Ensure information to Superintendent of Police and District Magistrate.
- ix. In case of sabotage, direct RPF to obtain quick clearance from State Police.
- x. In case of serious explosions or fire, clearance from Controller of Explosives is to be obtained. It is to be mandatory that Group / Team to reach at site at first information.
- xi. Give prima facie cause of the accident along with forecast of expected date and time of restoration.
- xii. Ensure timely information on the progress of rescue, relief, and restoration work with following details:

Number of coaches searched.	Number of bodies identified.
Number of injured passengers recovered.	Number of coaches dealt with.
Nature of injuries to passengers. Number of bodies recovered.	Supplementary assistance required, if any.
- xiii. Forecast for completion of each activity mentioned below should also be firmed up. These target dates and times should be communicated to all officers and supervisors at accident site:

1. Re-railment	4. OHE fitness.
2. Track fitness	5. Clearance of section.
3. Points and inter-locking	6. Movement of first train.

### **Duties of Divisional Railway Manager**

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

### **Formation of two teams at accident site for round the clock working .**

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

- iv. Branch Officers shall be available on duty during the day time.
- v. Branch Officers shall take on the spot decision regarding composition of the team for night shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.
- vi. Similarly, supervisors available from both HQ and divisions shall also be put in two teams.

### **Duties of Operating Department**

Immediately after getting the information.

- i. All sectional TIs and Supervisory SSs should be directed to reach the accident site by first available means.
- ii. Similarly additional RG/LR staff from the section should be sent to adjacent stations on either side so that additional shunting work can be done.
- iii. Since considerable amount of shunting is required to be performed at adjoining stations, 2 traffic supervisors in 2 shifts should be posted at adjoining stations on each side.
- iv. Ensure that special trains are sent into the accident affected block section according to the sequence detailed in Chapter 8.3.
- v. Ensure proper marshalling of crane while proceeding to the accident spot in the block section.
- vi. Ensure that Engineering vans of the ART are placed nearest to the accident site for this purpose; Engineering van/wagon should be placed closest to site of accident by sending it in pushing condition.
- vii. Ensure prompt clearance of stranded passengers at the site in coordination with the Divisional Emergency Cell.
- viii. Regarding running of special trains, keep in touch with Divisional Emergency Cell and give requirement from site.

### **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.
- iv. Ensure that evidence of train staff, station staff and public are recorded on the spot.
- vi. Addresses of passengers willing to give statements later should also be obtained.
- vii. Ensure that special trains are sent into the accident affected block section according to the sequence detailed in Chapter 8, Section 3.

### **Duties of Medical Department**

#### **i. Main functions**

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

Taking an initial round of hospitals and assessment of situation.

Taking out injured passengers from accident-involved coaches.

Attending to injured passengers and giving them First Aid.

Preparing list of injured passengers.

Classification of their injuries.

Transporting them to hospitals and getting them admitted.

Post admittance hospital care of the injured.

Dealing with dead bodies.

Preservation of dead bodies.

#### **ii. General**

Ensure collecting blood and urine samples of train crew in case the same is necessary.

Organise as many road ambulances as possible at the accident site.



Data Bank of Divisional DM Plans has names, telephone numbers and other details of hospitals near the accident site. They should be contacted on phone for sending road ambulances along with team of doctors.

Set up Medical Counter in UCC and CAC for passenger assistance. Set up First Aid Posts in LCCs.

### **iii. Site Management**

Leader of Team 'A' (Normally CMS/MS In-charge of the Division) would take control of the site, co-ordinate relief measures and distribute duties amongst doctors available as detailed below; Different teams and groups will be formed for discharging various duties of the Medical department as detailed in Section (7.5) above. Each should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement.

One group of doctors will take a round of various hospitals where injured passengers have already been admitted. (Para 'iv' below).

One group consisting of 4-5 teams of doctors and para-medics will take out injured passengers and dead bodies from accident involved coaches. (Para 'v' below).

One team will attend to injured passengers and give them First Aid and other medical treatment. (Para 'vi' below).

One team will prepare list of injured passengers, note down details of their injuries and classify them. (Para vii & viii below).

One team would be in-charge of transporting injured passengers to hospitals and getting them admitted. (Para 'ix' below).

One team would be in-charge of post admittance hospital care of the injured. (Para 'x' below). One team will deal with dead bodies after these have been extracted from coaches. They will prepare a list and arrange for their preservation. (Para 'xi' & 'xii' below).

In case sufficient doctors are available then more groups should be formed for rescue operations. (Para 'v' below).

### **iv. Taking an initial round of hospitals**

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

One commercial officer will also accompany doctors and make a general assessment.

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.

These information should be immediately communicated to CMS/MS at accident site by using local PCO/Cell phone etc.

Prepare a list of persons dead/injured already in hospitals in three copies by using carbon paper. 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.

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.

One copy should also be sent to CAC for being fed into the Personal Computer provided in the CAC.

The initial list prepared should be updated at regular intervals, as and when any change occurs and communicated to the emergency control.

### **v. Taking out injured passengers**

Maximum number of doctors should be deputed for this activity.

This group should consist of at least 4-5 teams. If numbers permit, more such teams should be formed.

Teams involved in rescue operation should ensure rapid access to all injured passengers. They should take assistance of Mechanical/Engineering/RPF staff to extricate injured passengers. Each team will join up with teams of Mechanical staff who would also be involved in extracting dead and injured from coaches.

Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another.

Coaches should be thoroughly searched including lavatory and vestibule portions before abandoning further search and moving on to the next coach.

**vi. Attending to injured passengers**

One team will be asked to provide medical treatment to injured passengers immediately after their evacuation from coaches.

Ensure stabilization of condition of injured passengers already taken out from coaches, before they are dispatched to hospitals by road.

In case of patients in critical condition where stabilization of condition at site is not possible, they should be moved immediately by road ambulance or shifted to ARMV.

**vii. Preparing list of passengers**

- a. Collect list of injured passengers prepared by TS/TTEs and assess the situation.
- b. Separate lists to be prepared coach wise.
- c. The list should contain following details;  
If found Conscious: Name, sex, age, identification marks, address, ticket number, originating and destination station.  
If found Unconscious: Approximate age, sex, identification marks, ticket number and other particulars if relatives and friends are available.
- d. 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.
- e. The list of injured passengers will thereafter be updated periodically, as rescue and relief work continues and fed into the Personal Computer provided in the UCC/LCC.

**viii. Classification of Injuries**

- A. Injuries are classified as under:
  - a) 'Grievous' injuries as defined below.
  - b) 'Simple', but excluding 'trivial' injuries such as abrasions or bruises.
    - i. Following are considered to be 'grievous' injuries (as per Section 320 of the Indian Penal Code): Permanent privation of sight of either eye.  
Permanent privation of hearing of either ear. Privation of any member or joint.  
Destruction or permanent impairment of powers of any members or joint.  
Permanent disfigurement of head or face.  
Fracture or dislocation of a bone or tooth. Emasculation.  
Any hurt which endangers life, or which cause the sufferer to be, during the space of twenty days, in severe bodily pain or unable to follow his ordinary pursuits.
    - ii. Injuries other than those defined above are considered to be "simple" injuries.
- B. Apart from injuries defined above, there may be cases where a passenger or trespasser receives only petty abrasions or bruises. These are of trivial nature and technically speaking should not be taken as injuries.
- C. "A Railway employee or a passenger or a trespasser shall be considered to be "injured" only when he/she is incapacitated following customary vocation for more than 48 hrs. Such injuries are classified as under"
  - I. Serious (including grievous injuries).
  - II. "Minor" or "Simple".
- D. Classify injured passengers into separate categories as grievous or simple.
- F. Inform Commercial department for arranging ex-gratia payment.
- G. Classification of injuries may be changed in the light of X-rays and other detailed findings after admission and should be intimated to UCC and LCC.

**ix. Transporting injured passengers to hospitals**

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

Ensure expeditious transportation of injured either to AMRVs or to nearby hospitals.

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

Commercial staff should also be associated with transfer of injured passengers to hospitals. Before doctors and supervisors leave the accident site for hospital duty, they should note down the DOT and mobile Telephone nos of the accident site, CMS, MS and other doctors at the site for quick communication.

Doctors going to different hospitals should have separate vehicles.

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

#### **x. Post admittance hospital care**

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

If large numbers 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.

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.

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

#### **xi. Care for the Dead**

20 nos of collapsible coffins which is available at each Divnl. Hospital will be transported to the site by ARMV, road vehicles or train services as per need.

Air-conditioned mortuaries available with Divnl. Hospital to be utilized to store at least six bodies.

There is provision of Embalming Gun and Chemicals to ensure that bodies are preserved for reasonable time and if necessary the bodies can be transported to Divnl. Hospital till claimed by relatives.

20 nos of body bags which are available with Divnl. Hospital is to be utilized.

In case of a major disaster the usual complement of medical staff in any ARMV is grossly inadequate for undertaking work of this magnitude. This should be augmented from nearby divisions/zones depending on the requirement

Adequate number of Safaiwalas and other health workers who have come to the accident site should be mobilized for this purpose.

Dismembered bodies begin emitting foul odour after two days. Carrying out this task under such circumstances become a real problem. Therefore, target should be to extricate all dead bodies within 24 hrs.

Dead bodies should be dealt with coach wise, otherwise bodies taken out from different coaches get mixed up.

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.

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.

Ensure covering of dead bodies with shrouds.

Put label (white cloth of 12"x9" written by marker pen) on body bag on each dead body on the chest just below the neck as below:

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

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.

5 photographs preferably by digital camera should be taken of each dead body. Two should be close up of face from in front and sideways, third should be with the label visible as mentioned above and fourth and fifth should be of full length of the body.

Each body should also be video photographed.

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.

After this, bodies will be handed over to GRP or local police for safe custody.

Take necessary steps to handle unhygienic condition that may arise due to decomposed/mutilated bodies.

## **xii. Preservation of dead bodies**

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

## **Duties of Commercial Department**

### **i. Main functions**

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

Providing beverages and catering to injured and uninjured passengers through IRCTC or any nodal agency.

Initial round of hospitals and assessment of situation. Preparing list of injured passengers.

Assisting transportation of injured passengers to hospitals and getting them admitted.

Payment of ex-gratia to injured and next of kin of dead.

Dealing with refund and claims compensation formalities. Taking charge of luggage and consignments.

Assistance in post-admittance hospital care of the injured. Taking care of relatives.

## **ii. General**

Before Sr. DCM proceeds to accident site he should arrange withdrawal of sufficient cash from station earnings.

At the accident site, handpicked commercial supervisors should be deputed for manning commercial counters in UCC and CAC.

Each commercial counter in CAC is to be manned by one group as detailed in Chapter 10, Sec-6(six). Co-ordination with other depts. during the process of salvage is must.

## **iii. Withdrawal of cash from station earnings**

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. Departmental expenditure necessitated for floods, accidents or earthquakes, etc.

Ex- gratia payments to persons involved in train accidents.

Procedure and accountal as detailed below should be followed (Para xi & xii below).

## **iv. Hiring of Vehicles**

- a A large number of road vehicles are required at an accident site for following purposes: Taking injured passengers, doctors and other important officials to hospitals. Clearance of uninjured passengers.  
Taking dead bodies to mortuaries.  
Bringing men and materials, etc. to accident site.  
Taking unclaimed luggage for being kept in safe custody.  
Taking relatives to hospitals and mortuary  
Other miscellaneous work.
- b For this purpose apart from whatever number of Railway vehicles may be available, extra road vehicles may be hired.
- c Adequate number of road vehicles should be attached to CAC for taking relatives to hospitals, mortuaries etc.
- d Nominated Railway staff to be attached to each hired vehicle round the clock (even group 'D' would suffice), so that optimum use can be made of the vehicle.
- e Buses from State transport authorities should also be requisitioned along with extra Drivers for round the clock duty.
- f One Railway staff should be put in charge of each bus on round the clock duty, who will accompany the bus wherever it goes and bring it back in time (even group 'D' would suffice).
- g In case hospitals are in different towns, then road transport buses should be put on fixed time round trip schedule for movement of relatives from CAC to various locations and back.
- h All hired vehicles and requisitioned buses should have stickers pasted on their front and rear windscreens indicating '**RAILWAY ACCIDENT DUTY**'.

## **v. Catering arrangements**

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.

Food and beverages should be supplied free of charge.

These may be arranged from Railway sources or outside sources as necessary, including IRCTC or their contractors.

To supplement Railway catering arrangements nearby dhabas and hotels should be contacted and arrangements made for opening up stalls at the site.

**vi. Clearance of uninjured passengers**

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

**vii. Preparing list of injured passengers**

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

**viii. Amount of Ex-Gratia payable**

- a The amount of ex-gratia relief payable to injured passengers or to dependants of dead in train accidents including at Manned LC accidents due to Railway's prima facie liability are same as para 7.6.3,ii.a :

Death	-	Rs.50,000/-
Grievous injury	-	Rs.25,000/-
Simple injury	-	Rs. 5,000/-

- b The amount of ex-gratia relief admissible for death / injury in "untoward incidents" as defined in Section 124A of IR Act 1989 will be as under :  
Death - Rs.15,000/-  
Grievous injury - Rs.5,000/-  
Simple injury - Rs.500/-
- c Payment of ex-gratia will be made on the basis of categorization of their injuries made out by doctors at site.
- d No ex-gratia payment would be admissible to trespassers, persons electrocuted by OHE and road users at unmanned level crossings.
- e Ex-gratia payment should also be made to Railway staff killed or injured by a moving train while performing their duty, for example, gangman working on track run-over accidentally by a moving train.
- f Ex-gratia amount is to be paid in cash.
- g In case of injured passengers, ex-gratia should be paid to the injured passenger himself or in case he is too ill, to his relative in his presence.

- h. In case of death cases where relatives identify and claim the body, following precautions are to be taken:  
Photograph the face of the body from in front and from the side. Photograph the person taking the ex-gratia payment.  
Record the relationship of the person claiming the body along with details of proof, if any.  
In case enhanced ex-gratia is announced by the Hon'ble MR, then the enhanced amount should be paid by cheque by Accounts department.  
Ex-gratia paid is not to be adjusted against claims compensation payable as decreed by RCT subsequently.
- i. Payment should be arranged preferably on the spot by a senior scale officer nominated by GM after making such enquiries as can be reasonably made on the spot after immediate needs by way of medical attendance etc., to injured persons have been attended.

**ix. Refund and Claims Compensation.**

Refund of fares must be granted in the CAC for unfinished journey as per rules and to be done on priority basis.

Injured passengers and next of kin of deceased passengers must be supplied with blank claims compensation forms along with Claims Booklet explaining complete procedure.

Photocopy of a filled up Claim Compensation form may also be given along with the blank form so as to help them in filling it up.

**x. Luggage and consignments**

As and when unclaimed luggage and personal belongings are taken out from coaches, a list should be made coach wise, and each item should be tagged with coach no.

A list of each item with distinguishing marks should be made.

If possible, the cabin number inside the coach should also be indicated. Luggage claimed should be handed over on satisfactory proof of ownership.

Unclaimed luggage and personal belongings of injured/dead passengers should be taken possession of for safe custody.

Unclaimed luggage should be stored in a safe place, preferably, part of the some building/enclosure which as being used for preserving dead bodies.

These should be stored in separate rooms coach wise so that it is easy for relatives to identify. A list should be displayed outside each room indicating the coach no. whose luggage is stored there.

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.

Booked luggage, parcels and consignments available in SLRs, VPUs etc. should be taken out and sent by road to nearest Jn. Station for safe custody.

Booked perishables goods available in SLRs, VPUs should be taken out and either auctioned at site or sent by road to nearest Jn. Station for being auctioned.

RMS consignments on the train should be shifted for safe custody till Postal Authorities come and take over.

**xi. Withdrawal from station earnings – Procedure**

In order to meet accident related expenditure, Officers can withdraw money from station earnings duly following the procedure incorporated in Commercial manual Vol.II rule No: 2425.

Departmental expenditure necessitated by floods, accidents or earthquakes, etc. Ex-gratia payments to persons involved in train accidents.

**xii. Withdrawal from station earnings – Accountal**

The withdrawal from station earnings will be against station pay order. The Officer withdrawing money from station earnings is personally accountable for its correct expenditure and submission of vouchers to the Sr. DFM through Sr. DCM of the concerned Division.

Branch Officer of the concerned department shall be responsible for submission of monthly statements of the amount of money withdrawn from station earnings to Sr. DCM, who shall consolidate such withdrawal and submit a report to CCM and FA&CAO(T) accompanied with relevant supporting paid vouchers on the 1st week of the subsequent month.

Executive officer concerned shall furnish full particulars of the amount withdrawn, details of payments made, reasons for the payment, the rate and period for which payment is made and the total amount paid with the acquittance to Sr DFM.

Sr DCM will compile a monthly statement of all withdrawals from station earnings of his division and send it to CCM and FA &CAO(T).

Branch Officer shall be responsible for submission of vouchers against expenditure incurred out of the station earnings withdrawn within 15 days to the Sr. DCM who shall consolidate such withdrawal and submit to Sr. DFM of the respective Division, failing which the amount so withdrawn shall be recovered from the concerned Officer's salary.

=\*=



## (CHAPTER – 12)

### SITE MANAGEMENT PLAN – III

#### **DUTIES OF MECHANICAL DEPARTMENT**

For discharging the dual responsibility of extricating injured passengers & dead bodies from coaches and toppling those coaches whose search has been completed, 2 separate groups will be formed at each end for purposes of 'search and rescue' and 'off tracking of coaches'. Once 4 ARMVs, 2 ARTs and 2 BD specials have arrived at the accident site from both ends, normally no more mechanical equipment will be required from anywhere else. The main work will then consist of using of these resources effectively and efficiently.

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

One Sr. Supervisor should be in-charge of each team conducting search and rescue at the site. All such 'search and rescue' groups at each end of the accident site would function under directions of an ADME.

Similarly, one Sr. Supervisor should be in-charge of each team working on 'off tracking of coaches' at the site. All such 'off tracking of coaches' groups at each end of the accident site, would function under directions of another ADME. The second ADME concerned would also be in-charge of the crane at that end. (To read AME as ADME)

Take precautions in electrified section that power supply is switched off before commencing rescue/relief work.

Use necessary safety equipment like hand gloves, helmet etc.

If spillage of inflammable substances is suspected, then only cold cutting equipment should be used.

In case of suspected sabotage, ensure minimum interference to clues. Save lives and extricate passengers after video and digital photographs have been taken.

Be cautious in using rescue tools like gas cutters, cold cutters, spreaders, hydraulic jacks etc. so that passengers trapped inside or buried under the debris do not get hurt.

Ensure marshalling of ART according to site requirement before it is sent into the accident involved block section.'

For efficient extrication of entrapped passengers take assistance of Medical/Engineering departments.

Each team will join up with Medical teams who would also be involved in extracting dead and injured from coaches.

Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another.

Road cranes of sufficient capacity should be arranged by Engg dept. so that these cranes can start working from the centre while the 140T cranes could continue working from either end.

Trucks should be arranged for carrying BD equipment near to accident involved coaches, so that number of coaches can be simultaneously tackled and more work centres can be opened up.

Examine unaffected or re-railed rolling stock and certify their fitness for further movement.

#### **DUTIES OF SECURITY DEPARTMENT**

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

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

#### **Liaison with Civil Police**

- i. In case of sabotage, liaison with Local Police & officials of District Administration and get early clearance.
- ii. Clearance should be obtained as expeditiously as possible, for starting restoration work.

- iii. Additional manpower should be requisitioned from local police officials and District Administration for purpose of crowd control.
- iv. Exemption should be obtained from SP of the district for waiving off formalities of Post Mortem of dead bodies.
- v. Obtain assistance from GRP and Local Police as and when required.

### **Crowd Management**

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

### **Protection of luggage**

- i. Protection of unclaimed luggages of passengers till these are duly taken over by commercial department for safe custody.
- ii. Unclaimed luggage of passengers should be isolated and stacked coach wise, with proper labeling indicating coach no from which recovered.
- iii. If possible, the cabin number inside the coach should also be indicated.
- iv. If such unclaimed luggage should be protected till they are handed over to claimants or taken over by commercial department.
- v. Unclaimed luggage should be stored in a safe place, preferably part of the same school building which is being used for preserving dead bodies.
- vi. These should be stored in separate rooms coach wise so that it is easy for relatives to identify.

### **Protection of Railway property**

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

### **General**

- i. RPF personnel should respond to any call for assistance to rescue victims and transport them to the nearest hospital.
- ii. Information updated by field personnel at the scene of incident to the RPF functionary in the UCC, giving the latest situation.

## **DUTIES OF ELECTRICAL DEPARTMENT**

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

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

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

### **Site illumination**

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

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

### **OHE at site**

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

- i. Immediately OHE should be switched off. In case OHE is to be brought down, the same should be done immediately so that working of crane does not get held up on account of OHE.
- ii. In case slewing of OHE suffices for some sections, then the same should be done quickly to facilitate crane operation.
- iii. Sr. DEE/TRD shall arrange movement of 6 Tower Wagons along with men and material from adjacent depots from both sides of accident site.
- iv. In case more tower wagons are required these should also be requisitioned from other depots along with men and material.
- v. An assessment should also be made of the extent of damage to OHE masts, and other equipment.
- vi. Additional requirement of materials, if any should be called for immediately from other Railway sources within the division.

- vii. In case divisional sources are inadequate, then sources from other divisions should be tapped.
- viii. In case other divisional sources are also inadequate, then sources from other zones should be tapped.
- ix. Availability of OHE masts is a long lead item. Requirement of masts should be quickly worked out so that these can be moved immediately.
- x. Ensure temporary portals are erected without delay.
- xi. In case damage to OHE is extensive and a wiring train is considered to be more efficient, then the same should be arranged for from other zone after discussion with RE organisation.
- xii. Ensure that the section is earthed before staff starts working near OHE.
- xiii. OHE should not be charged until all staff, tower wagons, cranes etc. have cleared the block section.

### **DUTIES OF SIGNAL & TELECOMMUNICATION DEPARTMENT**

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

#### **Types of communication facilities**

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

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

#### **Locations**

These should be provided at following locations:

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

#### **Numbers to be provided**

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

#### **Public Address System**

- i. Provide adequate number of PA system, Hand sets.
- ii. PA system should be provided in UCC, CAC and LCCs. These are to be used for communicating with passengers and for giving directions to Railway staff.
- iii. For this purpose, additional PA systems may become necessary depending upon the requirements at accident site.
- iv. Mega mikes available in ART will also be utilized.

- v. Volume of PA system in UCC, CAC and LCCs should be so adjusted that announcements made over one of them reaches only those areas which are under its jurisdiction. It should not interfere with announcements being made by other PA systems.

### **General**

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

### **DUTIES OF ENGINEERING DEPARTMENT**

Some duties have been detailed in Chapter 11 Section 8. Additional duties are as follows:

AEN/ SSE(P.Way/Works) shall collect men, rescue tools and arrive at site by fastest means possible.

Set up UCC, CAC and LCCs at the accident site.

Assist Medical/Mechanical Department in rescue work.

If necessary contact Army/Navy/Air Base and collect required personnel like Divers for rescue operation.

If necessary hire Private Road Cranes, bulldozers, Earth movers etc.

02 Engineering specials, one from each end, carrying engineering material and gangmen from the section.

Additional requirements of track materials, if any, should be called for immediately from other Railway sources within the division, well in time.

In case divisional sources are inadequate, then sources from other divisions should be tapped.

500 additional workmen are required who are to be moved from adjoining Divisions/Zones.

Each such Division sending assistance should move 250 men along with 5 artisans and 5 PWIs.

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

Plan for coordinated working and movement of track machine for quick restoration in consultation with TRD and operating officials.

### **DUTIES OF PERSONAL DEPARTMENT**

Sr DPO shall proceed to accident site along with all Welfare Inspectors.

Assist Doctors in collecting details of injured/dead and shifting them to hospitals.

WIs shall be available round the clock in shift duty to look after the welfare of injured persons in each hospital.

Issue complementary return journey passes to relatives for escorting injured and taking them back home.

Manning of personnel branch counters in CAC and discharge duties listed out for those counters.

### **DUTIES OF ACCOUNTS DEPARTMENT**

Making available sufficient amount of cash for meeting emergent expenses.

Opening of current account in a local bank and getting permission for over draft facilities so that large amount of cash is not required to be carried from far off stations.

Issue of cheques for making of enhanced ex-gratia payments, if so announced at accident site by Hon'ble MR.

### **STAFF MATTERS**

First problem is of identifying Railway personnel.

They should be supplied with coloured armbands to be kept in ARMVs/ARTs.

Adequate number of armbands, gloves and facemasks should also be provided in the ARMVs/ ARTs.

Second problem is of communicating with Railway personnel in the crowd.

Microphones/loud hailer provided in ARMVs/ARTs should be used both for crowd control as also for giving instructions to Railway personnel working at accident site.

Once initial rescue operations have got underway, arrangements have to be made for water and food for Railway staff working at site. Contract arrangement should be made for supply of food.

Spare coaches should be stabled at nearby stations where watering and charging facilities are available for stay of staff.

==\*=

## **(CHAPTER – 13)**

### **PASSENGER MANAGEMENT**

#### **GENERAL**

Assistance to passengers and their relatives is of utmost importance in relieving them some of their misery.

Injured passengers and their relatives are to be treated with utmost courtesy, concern and sympathy to alleviate their trauma and discomfort.

For dealing with relatives arriving from far long corners of the country, staff fluent in the local language of the place from where the train originated should be used as interpreters.

Commercial supervisors & WIs should be assigned to talk to injured passengers to ascertain from them whether they wish to call relatives.

Injured passengers should thereafter be provided with either mobile or BSNL STD phones in order to enable them to speak to their relatives.

#### **HOSPITALIZATION OF THE INJURED**

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.

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

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 that the treatment in private hospital is necessary in the interest of the patient.
- iii. Except where Railway doctor certified, such injured passenger should normally be eligible to the lowest class of accommodation in private hospitals where different scales are available.
- 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.

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.

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

Power has been delegated to MS/ARMV-in-charge for settlement of charges to be paid for such cases for each class of accommodation.

Payments to private hospitals under this para can be arranged locally by the Railways and Ministry of Railways approval is not necessary.

(Extract of Para 701(1) & Para 712 of Chapter VII of IRMM and Para 1421 of Indian Railway Establishment manual and M.O.Rs letter No. MH59/MES/ 96/medical alt. 18.12.1959).

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.

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

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.

## **FACILITIES TO BE MADE AVAILABLE IN HOSPITAL**

There should be a separate reception counter manned by commercial supervisor or WI at the entry to the hospital for dealing with relatives of patients who arrive.

A chart should be displayed at this reception counter indicating ward nos. where accident patients are admitted along with their names, coach no wise.

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.

Commercial staff and WI on duty at that hospital should carry a list indicating the name, address and telephone no of relatives as given by the patient, and whether they have been informed or not.

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.

As each relative arrives his/her name should be marked in the list against the passenger's name.

Reception counter should be provided with BSNL telephone with STD facility.

There should be 02 mobile phones for being taking to patients inside wards for making outgoing calls.

Complete medical care of all passengers including payment of medical bills till their final discharge should be provided.

## **COMMUNICATION**

STD Telephones/Mobile phones should be made available to passengers to communicate with their relatives.

Railway Telephones available at adjoining Stations/Cabins/Gates shall be extended to the accident site.

In case of passenger train accident mobile phones which will be kept at ART/ARME will be used by the stranded passenger free of charge.

## **ARRIVAL OF THE RELATIVES.**

- i) After a few hours the relatives of the dead/injured will start arriving.
- ii) Adequate number of 'Display Board' should be available in the ARME/ART.
- iii) They should be placed at a suitable place to lead the relatives to the CAC.
- iv) Loud speaker should be used to direct the relatives to CAC.
- v) Different counter should be opened to assist them as per Para 13.7.

## **CARE FOR THE RELATIVES.**

- i) Welfare inspector(WI)/Commercial Inspector(CI) should be available in the CAC to take the relatives to the hospital where the injured are admitted.
- ii) Name and address should be collected from the 'Reservation Chart' after arrival of the relatives.
- iii) If the injured passenger is required to be admitted in the hospital, WI/CI should accompany them.
- iv) Vehicles to be hired to shift the injured /unconscious/relatives to hospital/ mortuary.
- v) WI/CI must be present there till their relatives meet the injured /dead. vi). WI/CI should assist them to fill up all the formalities.
- vii) Shelters and readymade food should be arranged for the relatives of the dead/injured.
- viii) If required the passengers to be shifted to hotel/dharmshala on rent.

## **SINGLE WINDOW CLEARANCE**

CAC should have provision of single window clearance for all legal formalities & multiplicity of paper work.

Counters provided in CAC should have facilities for following items in the given sequence as indicated in Annexure – 3.

Reservation chart, for locating the name.



List of dead and injured along with name of hospital. The name of passengers involved should be checked up from the list of dead or injured, if available, and their current status informed.

Counter for providing commercial supervisor or WI as escort along with a vehicle, for accompanying the relative and going around to various hospitals or mortuary.

Railway doctor for issue of Medical Death Certificate.

Govt. doctor for issue of Post Mortem Clearance, in case the same is necessary.

Municipality official for issue of Official Death Certificate.

Local police for issue of authority for handing over of dead body.

Claims counter – Payment of ex-gratia and issue of Claims Compensation Form.

Counter for helping performance of last rites in case relatives decide to cremate the body there itself.

Pass counter for issue of return journey pass.

#### PERFORMANCE OF LAST RITES

In many cases relatives decide to perform last rites at the place of accident itself instead of taking the body back to their native place.

In such cases Railways should render appropriate assistance to relatives for performing last rites.

Information about performance of last rites of the deceased would be conveyed to the relatives & transport will be provided for carrying the body.

Assistance will be rendered by WI and Commercial supervisor.

=\*=

## **(CHAPTER – 14)**

### **MEDIA MANAGEMENT**

#### **OBJECTIVE**

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

#### **DUTIES OF PUBLIC RELATION ORGANISATION (PRO)**

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.

The information shall include telephone numbers of Help line Enquiry Booths.

CPRO, PRO and the entire PR organization should proceed to the accident site in the 1st Special train carrying GM and other HQ Officers.

Number of photographers with digital cameras and video photographers should also be taken along to the accident site.

Both CPRO and PRO will be available in the UCC during the day.

Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.

CPRO will organize Press briefings at fixed timings as detailed in Section 6 below.

PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

#### **SPOKES PERSON**

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.

Apart from the above, any other Officer authorized by GM is competent to interact or give interview to press and electronic media.

Railway's endeavor shall be to ensure that only factually correct and confirmed information is relayed to the media.

No inflated or exaggerated version of any fact should be relayed to the media.

Unconfirmed news having no authentic source shall not be relayed to media.

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

#### **INFORMATION TO BE RELAYED TO PRESS AND ELECTRONIC MEDIA**

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

##### **Accident**

- i. Nature of the accident – date, time, place, exact location, train no, number of coaches involved etc.
- ii. Details of how the accident most probably occurred.
- iii. Prima-facie cause of the accident will be relayed to Media only with the approval of 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.

**Un-injured passengers**

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

**Dead and Injured passengers**

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

**Help line Enquiry Booths**

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

**Train Services**

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

**CASUALTY FIGURES**

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.

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.

During Press Briefings, this point should be clarified that at that point of time so many bodies have been recovered.

However, it should also be made clear that casualty figures are likely to go up since rescue work is still continuing.

Assessment regarding likely number of deaths and injuries may also be made if considered necessary. Such assessment should be based on:

- i. Total number of coaches involved.
- ii. Number of coaches searched.
- iii. Number of coaches yet to be dealt with.

Particular reference should also be made to coaches that are crushed or that have climbed on top, and have not yet been searched.

For example, the media can be informed that as of 13 hrs., 02 coaches have been dealt with and so many numbers of bodies have been recovered. 08 more coaches are still to be searched and casualties are likely to go up.

#### **PRESS BRIEFINGS AT ACCIDENT SITE**

CPRO on arrival at accident site shall collect factual information from the OIC site and relay the same to Media personnel at site and also to Divisional Emergency Officer in the Divisional Emergency Cell. Thus, an on line communication channel will be established to keep media informed of all important details.

The first Press briefing will be held within one hour of CPRO's arrival at site. Subsequent briefings will be held according to the schedule given below.

CPRO or PRO should be available in the UCC during Press Briefings.

There should be fixed time for Press Briefings so that there will be no confusion regarding different versions given to separate channels at various points of time.

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.

Information to be given to the media will be of 30 minutes earlier. For example the media briefing held at 7:30 hrs. will convey all information as at 7:00 hrs on that date.

On the first two days, there should be 3 media briefings per day. These should be scheduled at the following timings :

i. 7:30 hrs, ii. 13.30 hrs, iii. 19.30 hrs

Thereafter, as per condition of the site, media briefing to be done.

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

- i. TV Channels.
- ii. Agencies UNI, PTI
- iii. Print Media.

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.

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.

**14.6.12** (a) On the first two days, there should be 6 media briefing per day. These should be scheduled at the following timings:

- 7/30 Hrs.
- 10/30 hrs.
- 13/30 hrs.
- 16/30 hrs.
- 19/30 hrs.
- 22/30 hrs.

(b) Thereafter, for the remaining day,s there should be 3 media briefings per day. These should be scheduled at the following timings:

- 7/30 hrs.
- 13/30 hrs.
- 19/30 hrs.

==\*=

## **(CHAPTR –15)**

### **FIRE AND OTHER ACCIDENTS MANAGEMENT**

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

In case of 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 property.

#### **FOLLOWING SOURCES ARE MAIN CAUSES OF FIRE ON TRAINS**

Carrying stoves, Sigris, gas cylinders, Kerosene oil, Petrol, Fireworks etc. in passenger compartments.

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

Lighted match sticks, cigarette ends carelessly thrown.

Short circuit in electrical wirings.

Using naked light during authority taken for delivery to the Loco Pilot, shunting of inflammable loads, sealing of inflammable wagons.

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

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.

#### **ACTION TO BE TAKEN IN CASE OF FIRE ON TRAIN**

First and foremost immediately summon the fire brigade.

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

In case of fire in a passenger train

- i. In case of the fire pull the Alarm Chain and stop the train immediately.
- ii. Try and put out the fire before it becomes a big blaze by using either water or blankets etc.
- iii. More people expire due to suffocation from smoke rather than due to actual burning.
- iv. Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils.
- vi. 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.
- vii. Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
- viii. Make sure that no passenger lies down on the floor.
- ix. After train has stopped, passengers should come down from the coach immediately.
- x. Building up confidence of injured passengers by suitable advice is of great importance.
- xi. Advise them not to get panic.
- xii. Ascertain the type of fire (viz. dry, all gaseous & electric) and use the right type of extinguishers.
- xiii. Isolate the burning vehicle from other vehicle by uncoupling.
- xiv. Train to be protected by Loco Pilot and guard at both ends according to the provision of G&SR 6.03.
- xv. Report it to the nearest Station/Control/Fire station.

#### **In the event of fire on an Electric engine/EMU**

- i. Loco Pilot shall immediately switch off the circuit and lower the pantograph. The train shall then be brought to a stop at once.
- ii. After disconnecting the electric supply to affected circuits, Loco Pilot shall take necessary action to put out the fire.
- iii. If fire cannot be extinguished by the above means Loco Pilot shall advice TPC through emergency telephone to arrange for OHE of the affected section to be switched off.

- iv. The Guard and any other staff available shall render all possible assistance to the Loco Pilot in putting out the fire.
- v. Ordinary fire extinguishers or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment.
- vi. If services of fire brigade are required, fire brigade shall not be allowed to commence operation until all electrical equipments in the vicinity of the fire have been made dead/switched off.

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

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

**When a person is on fire**

- i. Approach him holding the nearest available wrap in front of you.
- ii. Wrap it round him.
- iii. Lay him flat and smother the flames.
- iv. He may roll on the floor, smothering the flames.
- v. On no account he should be rush out in the open air which will result in more burning tendency.
- vi. Call for assistance.

**Fire caused by Petrol or other inflammable liquids, acids or gases**

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

**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.  
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 consignor as required.
- iv. Inform the Chief Controller of Explosives by fax/telephone.
- v. Inform Officer in charge of nearest police station.
- vi. Inform departmental 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 he does not wish to have any further investigation, the restoration work may be commenced.

## **FIRE FIGHTING**

### **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 to be used on a fire which undergo chemical reaction.

#### **How to Use**

- i. Carry to the place of fire and keep it up right.
- ii. Remove the safety clip.
- 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 stem of the powder at the base of the flame.
- vi. For effective result stand at about 1.5 to 2.5 m. from 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.

### **Suspicious substance in Railway premises**

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

### **Bomb threat/Blast**

#### **Person receiving call regarding bomb threat should :**

- i. Attempt to gain as much information as possible from the caller like type of device, time set, location, reason/purpose of the act, dialect mannerism and identity of the caller.
- ii. Inform and alert the disaster management team (Bomb detection squad).
- iii. Alert police, fire brigade and explosive department.
- iv. Pass on the information to all departments concerned.
- v. Take initiative for evacuation of all persons from premises.
- vi. Person noticing a bomb like object, should bring it to the notice of the nearest available Officer.
- vii. Inform GRP, RPF, Bomb detection squad.
- viii. Ensure all persons are away from the spot and avoid unnecessary crowding near the area.
- ix. Inform control to take further steps for regulating train services.
- x. Wait for clearance from the police department to restore normal working.
- xi. Utilize "Caller ID" facility if provided to trace the caller..

### **Radiation Emergency**

#### **Personal injury involving radioactive material contamination.**

- i. Render first aid immediately for serious injuries, as trained.
- ii. Call bomb squad, fire station & police
- iii. If possible, without causing harm to the victim, monitor the injured, remove contaminated clothing and gross personal contamination.
- iv. Radioactive contamination of personnel.
- v. Remove and bag all contaminated clothing.
- vi. Skin contamination should be cleaned using mild soap and tepid water. Use portable survey meter to monitor for remaining contamination. If not free of contamination, re-wash and re-survey.

### **What to do upon receipt of suspicious letter/package**

- i. Handle with care.
- ii. Don't shake or bump.
- iii. Isolate and look for indicators.
- iv. Don't open, smell, or taste.
- v. Treat it as suspect.
- vi. Call Police/Fire service/Bomb squad.

**If parcel is Open and/or threat is identified**

**For a Bomb :**

- i. Evacuate immediately.
- ii. Call Bomb squad /Police/Fire service.

**For Radiological :**

- i. Limit the exposure – don't handle
- ii. Evacuate the area
- iii. Shield yourself from the object.
- iv. Call police/fire service/bomb squad.

**For Biological or chemical:**

- i. Isolate – don't handle.
- ii. Call police/fire service/bomb squad.
- iii. Wash your hands with soap and water.

**OTHER ACCIDENTS**

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

- i. A strict vigil should be kept by introduction of special patrolling over the area as and when warranted.
- ii. Some persons to be trained specially and to be drafted for duty over the area if required.

**GENERAL INFORMATION ABOUT FIRE DISASTER OTHER THAN TRAIN**

**In case of Fire**

- o Raise an alarm and inform the Fire Brigade on Telephone No. 101
- o Attack the fire with available equipment, if you can do so without undue risk.

**If you hear the Fire Alarm**

- o Leave the premises by the nearest available exit.
- o Close all doors and windows behind you, if nobody are there behind you.
- o Report to the person in-charge at the assembly point.

**In the interest of Your Own Safety**

- o You must know the escape routes, how to operate fire alarm and how to use first aid fire fighting equipments.
- o Do not use lift as a means of escape.
- o Do not shout or run. This tends to cause panic.
- o Call the Fire Brigade.
- o The services of the Fire Brigade are provided free of cost Dial 101 irrespective of the size of the fire.

**Help the Firemen to Help You**

- Give way to fire engines & engineers/volunteers to enable them to reach at the incident/site quickly.
- Allow them to use your telephone to communicate with the control room.
- Don't park your cars/trucks close to fire hydrants/underground static water tanks.
- Guide firemen to water sources i.e., Tube wells, ponds, static tanks etc. in case of fire.



**You should know that**

- a. About 600 liters of water flow through a nozzle in a minute.
- b. A water tender carries 4500 liters of water only.
- c. If two nozzles are used to throw water on to the fire. It takes only 4 minutes to empty a water tender.
- d. Hydraulic Platform/turn table ladders can reach to a height of 30m/45m under most favorable operating conditions.
- e. No objection certificate from Fire Service is not a guarantee against the out break of fire.
- f. Availability of fire fighting equipment in the premises do not prevent out break of fire. They help in minimizing the losses due to fire if maintained properly and operated immediately, effectively and efficiently.
- g. Non-informing to fire service about the fire incident is a cognizable offence.

**Fire is fast**

In less than 30 seconds a small flame can get completely out of control and turn into a major fire. It only takes minutes to fill a house by thick black smoke. In minutes, a house can be engulfed in flames. Then there might not be any time to escape.

**Fire is hot**

A fire's heat alone can kill. Room temperatures in a fire can be 100 degrees at floor level and 600 degrees at eye/head level. Inhaling this super hot air will scorch your lungs. This heat can melt clothes to your skin. In five minutes a room can get so hot that everything in it ignites at once with an explosion.

**Fire is dark**

Fire starts bright, but quickly produces black smoke and complete darkness.

**Fire is deadly**

Smoke and toxic gases kill more people than flames do. Fire consumes up the oxygen you need and produces more smoke and poisonous gases that kill human. Breathing even small amounts of smoke and toxic gases can make you drowsy, disoriented and short of breath. The odorless, colorless fume silences you into a deep sleep before the flames reach your door.

**Fixed Fire Fighting Equipments :**

The Fire Alarm system consists of smoke/heat detectors, hooters, manual call points, and a Fire Monitor Panel.

**Smoke/Heat Detectors:**

Smoke/Heat detectors are a sensitive instrument used in detecting the initial stages of a fire. It raises an alarm as soon as it comes into contact with smoke/ heat. These detectors should be installed in each room and corridor. They should be fitted in the false ceiling, facing downward.

**Hooters:**

A hooter creates a loud warning sound to alert members of the staff in the premises as well as neighbours about a fire. Hooters should be installed at the main entrance to the premises and in each zone. They should be fitted at the top of the walls.

**Manual Call Point :**

A manual call point enables anyone who detects a fire to raise the alarm in case the smoke/heat detectors do not activate the hooter. Anyone who detects a fire should break the glass at the manual control point. This causes the alarm button to come outward and the hooter to turn on. Manual control points should be installed in each zone in the premises. They should be fitted on the wall close to the exit in each zone.

**Fire Monitor Panel:**

The fire monitor panel shows the broad location of any fire in the premises. It also helps in testing the electronic fire equipment installed at the site. It should be installed close to the main Security Guard post or at a point where it can be seen by most of the members of the staff.

**Three ways to make your workplace a safer place to be:**

- a. Maintenance of Fire fighting equipments: The Fire Prevention & Life Safety Act has been introduced in some states like Maharashtra, from the year 2006. The Act defines the duties and responsibilities of the “Occupier/Owner”. The law also defines the penalties in case fire fighting system is not maintained properly.
- b. Get Training: It makes business sense to improve fire safety in your workplace. It has always been emphasized on “Production is a must but Safety First” but we seldom practice the same. The basics of fire fighting can be given by our local fire stations.
- c. Fire Risks: The fire risks may have serious implications and should be dealt with quickly and in confidence by trained people only. A “risk to life and property” could include a disregard to fire safety practices, for example, blocked or locked fire exits.

**Fire Safety Plan :**

Multi storied/high rise office buildings should have siren/hooter for fire, which will be sounded after fire’s outbreak. The person who first sees the fire should call loudly for alerting & hinting others near fire to escape and close the door & windows behind them. All personnel should have been trained to operate/ switch on the fire alarm/hooter/siren. After hearing the siren of fire, volunteers / firefighters should search for where fire exists. Immediately identify the area of fire and then approach towards fire cautiously. While approaching the fire clear the exit path if found obstructed. Try to extinguish the fire by using available fire extinguisher as per Annexure – 37, as much as possible. Do not use lift during fire disaster. Other than fire fighters everybody should go to the “Assigned reporting place” by the “escape / exit path” only, as identified earlier. Electrical connections should be switched off immediately. In-charge should take the attendance of the staff. Keep the approach road clear for fire brigade vehicles so that they could start combating the fire quickly on arrival before it spreads for massive destruction. During the process of combating fire few staff nominated/trained as surveyor should have been deployed to record the constraint/obstruction faced during the fire fighting operation. The HODs/In-charge should jointly organize a meeting to review the fire risk management plan and evacuation plan. Implement / execute recommendations of surveyor of Fire Department and /or building professional before reusing offices for utilisation.

**Remember to conduct the mock drills once in a year and escape plan half-yearly. All Electrical Installations/circuits should be certified once in a year in the month of February by inspection and testing as “free from fire danger”.**

**FIRE AWARENESS IN OFFICES.****BEFORE :**

1. The office must have sufficient exit routes.
2. Identify the fire hazards and where fires might start.
3. Staff to have training in fire safety.
4. Staff to be made aware about the “Do’s & Don’ts”. Office should have an emergency exit plan.
5. Check the adequacy of fire fighting equipments and its maintenance.
6. Ensure fire escape routes and fire exit doors/ passageways are unobstructed and doors open freely.
7. Have first aid kits.
8. Keep electrical inspection and testing up to date and carry out repairs.
9. Kitchen has to be in secured and safe location only.
10. Impart elementary fire fighting training to Users.
11. Conduct fire drills once in a year and Escape path drill half-yearly.
12. Consult with and implement recommendations of the local fire brigade instructions.

**DURING :**

1. Exit from the office to an assigned open area.
2. Enclose the fire if possible. If not, get outdoors immediately.
3. Execute evacuation plan and practice fire drills procedures.
4. Call the Fire Brigade by dialing “ 101 “.
5. Nearest hospital/authority to be alerted.
6. Do not allow any body to create panic.
7. Do not let anyone hide. HODs/In-charges to ensure that nobody is trapped in toilet/indoors.
8. If the room is filled with smoke, ask staff to stay low to the ground during exit.
9. Feel on top of any closed door about fire (hot) before they are to be opened.
10. If the door is hot, use the nearest window or another exit.
11. Staff should go to pre – arranged locations (assigned open area), Dept. HODs / In-charges should take attendance of their staff.
12. Doctors should comfort distressed staff.
13. Do not allow injured staff to leave on their own.

**AFTER :**

1. DON'T re-enter or permit anyone to enter the office building, unless the fire officials have given permission to enter.
2. HOD/In-charges to confirm that all staff have reached the assigned open area safely.
3. Review the fire risk management plan and evacuation plan.
4. Implement / execute recommendations of surveyor of Fire Department and /or building professional before reusing offices for utilisation.

**DOs**

- 1 When you know the fire escape first then alert your nearby co-workers by calling loudly for help.
- 2 Switch on the fire hooter/siren to warn everybody if available. On train pull the chain.
- 3 Inform Electrical Break down Office & switch off the electrical circuits.
- 4 Inform Fire station, Ambulance using emergency calls (telephone numbers - Fire – 101, Ambulance –102, Police - 100)
- 5 Evacuate the place with all members by warning them.
- 6 Use staircase while evacuating the building.
- 7 Before opening door ensure the heat by touching top portion of the door.
- 8 If door is found to be cool then only open slightly and observe the escaping path.
- 9 If path is clear & being confirmed that there is no fire/smoke then proceed carefully on staircase.
- 10 Use fire extinguishers if available, untrained staff should act as per the instructions over The extinguisher.
- 11 If you are unable to come out side, keep patience & wait till rescue team approaches you. 12- Escape out by crawling mode if possible.
- 13 Escape towards the balcony if not on fire.
- 14 Approach towards window if no fire nearer the window & show any sign by waving handkerchief/ shirt etc to attract rescue team.
- 15 If possible shift the gas cylinders to unaffected / safe area. 16- Use ISI certified electrical appliances.

**Don't**

- 1 Don't use lift during fire accident.
- 2 Don't block the passages of escape / staircase.
- 3 Don't plug too many appliances in one socket.
- 4 Don't use damaged cord & avoid temporary connections.
- 5 Don't use non-ISI electrical appliances.

**Note: About 50% fires are of electric origin on account of electric short circuit, overheating, overloading, use of non-standard appliances, illegal tapping of electrical wires, improper electrical wiring, carelessness and ignorance etc. 20% of fire are from the cooking elements like LPG gas, kerosene, grease, petroleum products etc. All these can lead to serious fire and fatal accidents, if proper instructions are not followed. Such incidents can be minimized to a great extent if adequate fire precautions are observed. Electrical fires spread rapidly especially in buildings and cause loss of lives and property. It is, therefore, necessary to act fast. Raise an alarm for help. Switch off power supply to de-energise the equipment. Use dry sand, CO<sub>2</sub>, dry powder extinguishers in both the cases.**

**ALWAYS REMEMBER:**

**“Fire is a Good Servant, But a Bad Master - Prevent Fire”**

**==\*=**

## ( CHAPTER- 16 )

### **PREPAREDNESS FOR DISASTER MANAGEMENT**

**16.0** Intensified Inspections and precise training keep the working force in alert condition, which will prevent any eventuality of Disaster in the system. However trained manpower is an essential ingredient of any DM system, mere provision of sophisticated equipment without trained manpower is futile. For handling an unforeseen situation like managing a Disaster, training of all Railway personnel concerned is an inevitable input. To acquire necessary knowledge and skill, all relevant officials should be given periodic training regarding their duties and that of their department.

#### **16.1.INSPECTIONS:**

Regular Night Footplate Inspection, Ambush checks, Trolley inspections, Tower wagon inspections, Inspection of Bridges, RATs and night patrolling of tracks in the accident prone, vulnerable sections should be intensified to ensure alertness of the concerned staff to eliminate the chances of Disaster. Constant evaluation of the reports should be done converting it to Safety concern at Division level with information to HQ about action taken report for the purpose.

#### **TRAINING :**

**Training should be conducted at the following three levels**

##### **i. Individual Training**

- a. For enhancing the skill of staff attached to ARMVs & ARTs, etc., supervisors and staff shall be given general training in Disaster Management.
- b. Special training may be arranged in Extrication, Rescue, Medical relief Rolling stock restoration technique and Civil Defense by departments concerned.
- c. Officers and supervisors should be trained to acquire special skill in collection of evidence and preservation of clues as Sr. DSOs are made responsible for collection of evidence, preservation of clues, joint reading and joint findings.
- d. The onboard staffs should be provided DM training with fire fighting training for better management of fire on train incident.

**ii. Seminars/Workshops:** Seminars should be periodically conducted on DM Plan and Disaster preparedness.

**iii. Joint Exercises:** Full scale Disaster Management Mock Drill to be conducted as detailed in para 16.5.

#### **Civil Engineering department:**

##### **Identification and retro fitment to major structures of Risk Zones:**

**3.28.** Million Kilometers land falls in moderate to high seismic risk Zones. Seismic retro fitment is the modification of existing structures to make them more resistant to seismic activity, ground motion, or soil failure due to earthquake. Seismic performance of structures can be greatly enhanced through proper initial design and subsequent modifications.

A detailed inventory of major infrastructures such as Bridges, high-rise buildings & Telecom towers etc., which may be affected in disaster, shall be prepared for retro fitment. If not possible alternative arrangements shall be made and kept in readiness to establish communication facilities easily and quickly after the disaster.

##### **Installation of Anemometers :**

These are the devices used for measuring wind speed at specified height from the ground level. The anemometers should be installed by the Engineering Dept. at strategic stations along the East-Coast route.

##### **Monitoring Quality of constructions:**

Engineering department shall monitor the quality of new constructions and repairing works as per the technical guidelines of quality control for all vulnerable areas to natural disasters.

**Mechanical Department:**

Mechanical department shall keep ARTs SPART, ARMEs/ARMVs/ SPARMV always ready for ordering out at any time. 18 over aged tank wagons suitable for carrying drinking water should be identified and made available at VSKP, KUR & SBP (@ 6 x 3) for loading and movement of drinking water.

**Safety Department:**

Disaster Management essentially necessitates a state of preparedness under all circumstances and the efficacy of arrangements therein can be assessed only by conducting periodical full-scale mock drills. Safety Department should ensure regular practice through mock drills and review the calibration of equipments.

**Objective of the full scale mock drill would be to:**

- i. Gauge the preparedness of DM system including detailed planning and keeping of all equipment in good fettle.
- ii. Integrate the operational response to measure overall performance and the exercise.
- iii. Measure performance with regard to accident restoration.
- iv. On a Division, the first mock drill should be conducted within 03 months of issue of the Zonal DM Plan.
- v. On a Division, the second mock drill should be conducted 03 months after the first one, in order to correct all shortcomings noticed during the first mock drill.
- vi. Each division will conduct mock drill once in a year.
- vii. A full scale joint exercise mock drill with nearest NDRF and ODRAF shall be conducted once in every 2 years after the new DRM takes over.
- viii. It should be conducted during the day and in a branch line section.
- ix. 06 hrs traffic block shall be taken and the ARMV/ART run out to the accident site.
- x. UCC and CAC should be set up and each department will post their functionaries in the Control Office as also in UCC and CAC.
- xi. All facilities should be provided in UCC and CAC by departments concerned.

**During these full scale mock drill, following aspects shall be closely watched**

- i. Turning out of ARMV/ART within the prescribed time.
- ii. Speed of the specials.
- iii. Assembly of staff.
- iv. Handling of HRDs, HREs and other rescue equipments in ART & ARMV.
- v. Logging of events.
- vi. Functioning of field telephones and communication network.
- vii. Functioning of generator sets, lighting equipments.
- viii. Preparedness of first-aiders and availability of medical equipment.
- ix. Preparedness of commercial department to mobilize adequate manpower.

On completion of the drill, a detailed report shall be prepared. in detail Evaluation of the report should be done for deficiencies noticed, corrective measures initiated and improvements required. A copy of the drill is to be sent to GM and CSO.

==\*=

## (CHAPTER – 17)

### CYCLONE MANAGEMENT

#### SCOPE

The coastal Divisions of Indian Railways come under the influence of South West monsoons and are situated along the Bay of Bengal. A number of sections along the East Coast are prone to storms, cyclones and heavy intensity of rainfall, which affect the safety of travelling public and also result in disruption to traffic and communication.

#### DEFINITION & CLASSIFICATION OF CYCLONES

The following are the definitions of the terms and meaning of abbreviations used in this manual - 17.1.1

**India Meteorological Department (I.M.D):** It is the department under Govt. of India responsible for, inter-alia, issue of weather warnings.

Since pre monsoon cyclone season of 1999, IMD has introduced a 4-stage warning system to issue cyclone warnings.

- (i). **Pre-Cyclone Watch** – Issued when a depression forms over the Bay of Bengal irrespective of distance from the coast and is likely to affect Indian coast in future. The pre-cyclone watch is issued in advance at least 72 hrs in advance of the commencement of adverse weather. It is issued at least once in a day.
- (ii). **Cyclone alert** – Issued at least 48 hrs before commencement of the bad weather when the cyclone is located beyond 500 KM from the coast.
- (iii). **Cyclone warning** – Issued at least 24 hrs before commencement of the bad weather when the cyclone is located within 500 KM from the coast.
- (iv). **Post landfall look out** – Issued at least 12 hrs before the cyclone landfall, when the cyclone is located within 200 KM from the coast.

**Regional Meteorological Centres (RMC):** These are the centres under the administrative control of the India Meteorological Department, who directly issue the weather warning telegrams on the basis of forecasts. On ECoR system, Regional Meteorological Centres are situated at Bhubaneswar and Visakhapatnam.

**Cyclone Warning Centres (C.W.C):** It is a special establishment established in 1986 under the India Meteorological Department located at Visakhapatnam. It specializes in forecasting of development, movement and progress of cyclone on the Bay of Bengal. It is the main source to provide information related to cyclone not only to the Railway and such other organisations, but also to the Regional Meteorological Centres under the India Meteorological Department situated elsewhere.

**First Stage Warning' by CWC :** It is the warning issued by CWC as soon as a cyclonic storm is located at such a distance from the coast that it is expected to cause bad weather' over the coast during next 48 hours.

**Second Stage Warning' by CWC:** Following the first stage warning', the second stage' warning is issued as soon as there is "actual threat" of cyclone over the coastal area.

#### **Tropical cyclone Storm:**

- i. **Severe Cyclonic Storm :** When the wind speed on the strike of cyclone on land is expected to be 120 Kmph.
- ii. **Very Severe Cyclonic Storm :** When the wind speeds in the strike of cyclone on land

is expected to be 180 Kmph.

- iii. Super Cyclonic Storm:** When the wind speeds on the strike of cyclone on land is expected to be 220 Kmph.

**17.1.7. De- warning Message:** A message issued by CWC/Visakhapatnam after the cyclonic storm has adequately weakened or passed fully.

### **INFORMATION DISSEMINATION & CYCLONE INTENSITY MONITORING SYSTEM**

Arrangements exist with the Meteorological Dept., Govt. of India for issuing telegrams of warning whenever there is storms, gales and heavy rainfall. The conditions under which warnings are issued are detailed below –

- i. Amount of rainfall considered dangerous – 75 mm and above in 24 hours.
- ii. Wind velocity considered dangerous – 65 Kmph and above.
- iii. Period when warnings will be given – Throughout the year.

These weather telegrams are issued by the I.M.D. offices at Bhubaneswar and the Cyclone Warning Centre/Visakhapatnam to the Chief Controllers of all the 03 Divisions of ECoR apart from Central Control at Chandrasekharapur/Bhubaneswar. Arrangements exist that in case of failure of DOT communication system during bad weather/cyclone, the microwave network of the Railway or Police wireless systems or satellite phones will be utilized.

### **PRE-CYCLONE SEASON PREPARATION**

Pre-cyclone preparation essentially involves ensuring of adequate inventory of necessary stores and equipments as per the check list.

#### **Pre-cyclone preparation:-**

- i. Pre-monsoon co-ordination meeting should be convened by the Engg Dept. in Divisions involving representatives from state Govt., NDRF, SDRAF Fire service Organisation etc. to assess the preparedness, rolls & responsibilities to address the situations.
- ii. Mock drill exercises should be conducted in regular manner involving various stake holders.
- iii. Web GIS based application should be brought into use for effective management of cyclone and other disasters.
- iv. Training of community volunteers of various cyclone prone areas needs to be organised as first responders for assisting in rescue, evacuation, first-aid, cutting of fallen trees, clearing of path/ roads etc.
- v. List of items/ Railway properties which prone to damage of all departments to be prepared for early removal or to cover before cyclone and to be placed at safe place and safe custody.

### **CHECK LIST OF STORES**

Since the time available between initial warnings upto the actual occurrence of cyclone and its damages/disruptions is often very short, pre-emptive action is essential to ensure adequate preparedness in terms of stores and equipments necessary to deal with the disruptions/damages.

### **STORES DEPARTMENT**

The Stores Department will ensure stock of items with quantities given in Annexure 5. The locations for stocking of these materials shall be at Mancheswar, Khurda Road and Waltair Stores Depots which are accessible by rail as well as road.

#### **Stores:-**

- ii) Mechanise for supply chain management needs to establish for smoother procurement, transport and distribution of relief supply to the affected involving Comm., Optg & Engg dept.



## **ENGINEERING DEPARTMENT**

The list of materials which should be kept at strategic locations on the East-coast section at all times is available at Annexure-6, (Engg). Apart from the standing inventory of materials as listed in Annexure-24, the following arrangements should exist;

Standing arrangements on 'whenever required' basis should exist for supply of adequate rake loads of steel plants slag from SAIL, Rourkela and Visakhapatnam Steel Plants and quarry dust with ballast contractors.

As restoration of traffic often requires heavy handling of earth, availability of heavy earth moving machinery viz Poclains, JCBs, Pay-loaders etc should be identified in the coastal towns along with firm's/owner's names, addresses and telephone numbers so as to hire and mobilize them whenever as the necessity arises.

Standing contracts with 100% option clause may be entered into on annual basis from strategic quarry dust and boulder supply locations viz Tapanga, Niligiri, Chandikhole (near Dhanmandal) on East Coast Railway and Pakur at Eastern Railway.

Pool of multiple skilled trained volunteers from various departmental staff should be formed to involve themselves in immediate rescue and relief.

Identification of locations in Rly area or within the nearby vicinity with co-ordination of state Govt. for use as cyclone shelters for affected people & animals.

Over head tanks for supply of water to colonies and other area of Rly infrastructure should be filled in advance to its full capacity.

Removal of Railway property which are prone to damage should be removed/relocated/coved before cyclone and to be placed at safe place and safe custody.

## **ELECTRICAL DEPARTMENT**

The items, quantity and locations of electrical materials to be kept as pre-cyclone measure are available at Annexure -7, (Electrical) . In addition to these materials, the locations of additional generator cars should be identified in advance so that they can be requisitioned from other Divisions/Railways in case of necessity.

- ii) Arrangement for resumption of emergency electric supply by promoting solar system may be ensured.
- iii) Arrangement may be there for by suitable methodology of availability of electric poles and its erection to ensure immediate restoration of power system in case of damage in cyclone.
- iv) Removal of Railway property which prone to damage should be removed before cyclone like light fittings, fans, etc.if possible.

## **MECHANICAL DEPARTMENT**

Mechanical Dept during pre-cyclone season needs to take the following measures – About 18 over aged four wheeler tanks suitable for carrying drinking water shall be identified and made available at VSKP, KUR & SBP (@ 6 X 3 ) for loading and movement of drinking water.

## **S&T DEPARTMENT**

The experience has shown that the communication links including terrestrial, underground and microwave sever off at the on set of cyclone. In such cases, VHF sets for short distance communication and satellite phones for long distance communication are the only means available for exchange of vital information. However, following pre-cyclone arrangements should be made

Availability of emergency generator sets for charging of VHF equipments at all nominated stations with adequate fuel.

The satellite phones should be kept in working order at Chandrasekharpur/BBS.

Spare 25 W VHF set complete with battery and antenna to the extent of 25% of total sets provided in the Divisions should be available with TCIs on East Coast Route.

One extra DG set along with 02 number of 20 litres of jerkin full with fuel should be stored at each of the three locations (SBP, KUR & VSKP) along the East Coast route at SE(Sig)/SE(Tele)'s stores.

### **MEDICAL DEPARTMENT**

Medical Dept will keep the following items in stock at the locations indicated against each as preparedness for cyclone even during the pre-cyclone season.

<b>Material</b>	<b>Quantity</b>	<b>Locations</b>
Chlorine tablet	01 Lac	MCS, KUR & WAT
Bleaching power	50 Bags	MCS, KUR & WAT

At above locations the material will be kept with CMD/CMS stores in respective Main Hospitals.

- ii) Streamlining of ambulance system .
- iii) Construction of mobile health team.
- iv) Special care to children , pregnant women, lactating mother , aged and differently- able persons.

### **ACTION TO BE TAKEN 48 HOURS IN ADVANCE OF HITTING CYCLONE**

Formation of low-pressure area, its development into cyclonic storm and its tentative direction of propagation becomes known much before (well above 48 hours) the estimated time for it's striking the coast. A broad assessment of anticipated severity of cyclone becomes known at least 48 hours before it's strike to the coast. From this point of time, prompt action to combat the cyclone is warranted.

### **CHECK ON THE INVENTORIES AND EQUIPMENTS OF STORES**

Inventories/Stores to be maintained by each Dept on specified locations is detailed in Annexure-5 to 7. After initial warnings of cyclones have been received from the I.M.D/C.W.C each dept will conduct a check for physical availability of items with quantities and locations as per the checklist given in Annexure. The following actions are required by each Dept :-

### **STORES DEPARTMENT**

Reviewing the stock position of items given in Annexure-5 (Stores) (in the stocking depot and locations likely to get affected.

Arranging transportation of some of the relief materials to the likely affected areas before natural calamity strikes.

### **ENGINEERING DEPARTMENT**

The engineering material as stocked as per Annexure-6 (Engg) should be cross checked for its physical availability in full. The fitness of vehicles on which the materials have been loaded 'on wheel' should be obtained. Apart from this, the following action needs to be taken –

- (i). Based on the anticipated severity and warnings, the modalities for movement of materials given in Annexure-6, (Engg) should be planned.
- (ii). The firms/owners having heavy earth moving machineries should be contacted, alerted and asked to be in readiness to provide the machineries to the Railway. Movement of such machine including loading and unloading arrangements should be planned in consultation with the Operating Department.

- (iii). A review of availability of the following materials with stockholders should be done to know the availability position -  
(a) GI Wires, (b) Asbestos Sheets, (c) GI Sheets, (d) Tents & (e) Pipes/ Bamboo.

### **ELECTRICAL DEPARTMENT**

Check working of DG sets, stock position of fuel oil, K-Oil, position of light fittings and other materials so as to ensure that they are available in working condition at nominated depots. This should be ensured by DEE(G)/ AEE(G)/ Supervisor in-charge for their respective jurisdiction. Any shortage should be made good. HQs control should be informed for assistance if required. Complete list of vital equipments & consumables should be available in Divisional control.

### **MECHANICAL DEPARTMENT**

The fitness of rolling stock for transportation of drinking water as well as those of ARTs, ARMEs & ARMVs should be checked and ensured.

### **S&T DEPARTMENT**

#### **Communication**

- i. Check that 25 W VHF set provided at each station is functioning properly & battery in fully charged.
- ii. Check that emergency generator set is functioning properly with adequate fuel.
- iii. Check that fuel supply tanks of the generator sets have been fully filled and adequate fuel for 72 hrs has been stocked.

#### **Microwave tele-communication equipment**

- i. Check and align all Microwave equipment and battery of DG sets with adequate fuel.
- ii. Keep MAST riggers, Transport, Fuel ready to attend to any disturbance to antenna and tower mounting.
- iii. Telecom channels via alternative routes should be lined up and kept terminated for Administrative trunks and control working.
- iv. Satellite phones wherever available should be tested and accompanying staff identified along with battery charging arrangement.
- v. Communication equipment in ART should be tested for proper working order.

#### **Block working**

- i. Check all the Block Instruments and their Batteries.
- ii. Extend power supply from emergency generator set to Block Battery charger.

### **MEDICAL DEPARTMENT**

Medical Dept will check the availability of stock as detailed in Annexure-04 (D)

### **OPERATING DEPARTMENT**

Sr.DOM of the concerned divisions will make a rough assessment of staff and area of deployment and advise HQs and Emergency Control/BBS. The Divisional Control will also obtain the status of functioning of VHF sets and batteries/generators from each station and bring the discrepancies to the notice of Sr.DSTE.

SM of the area with assistance of Sr.DOM of the division which is likely to be affected will ensure storage of adequate drinking water, functioning of LED /Torch Light/Search Light adequate availability of fuel for generator sets, functioning of VHF sets, charging of stand by batteries and adequacy of first aid equipment.

### **ACTIVATION OF ALARMS TO STAFF & COLONY**

**Action by Central Control – COM's Office**

- i. At HQs Office the Central Control Unit who is the recipient of the weather warning telegrams will arrange for the distribution of the message to the CE, CBE, CTE, COM, CSO, CME, CEE and CSTE through their concerned departmental counterparts in Central Control.
- ii. Central Control should also verify with the Divisional Control that such weather warnings, telegrams have been received by the Chief Controller of the concerned Division to enable them take prompt action at field level, if not should be informed immediately.

#### **Action by the Divisional Control Office**

The Chief Controller or in his absence the Dy. Controller should immediately arrange for the weather warning telegram to be repeated verbatim to the Divisional Officers as well as AENs concerned and all SMs on the section likely to be affected on the control telephone. The Controller repeating the telegram should record the name of the SM to whom the telegram has been repeated.

#### **PREPARATION OF ACTIVITIES FOR STATIONS LIKELY TO BE AFFECTED BY CYCLONES**

- (i) **Diversion of Trains:** Divisional/HQ Emergency Control will remain in touch and take action for diversion of trains based on the ground situation. All diversions ordered shall be advised through a bulletin to all concerned including CPRO for publicity.
- (ii) In order to avoid any mishaps or damage to the passenger trains and to avoid marooning of passengers, the COM or an officer acting on his behalf will issue instructions to all concerned for either cancellation or regulating the trains in time so as to avoid running through likely affected area by cyclone.

#### **17. 20 NOMINATION OF OFFICERS TO MAN THE EMERGENCY CONTROL AND WAY-SIDE STATIONS.**

In addition to the action taken as per above para by various departments, each PHOD/concerned DRM will identify and nominate the officers for opening up and manning of emergency control at short notice at HQ/Division.

Two light motor trolleys should be arranged & kept in readiness at strategic stations which should be away from the likely affected zone. At least one officer & a few staff should be nominated for each motor trolley. They should be provided with VHF sets & 01 satellite phone each so that they can accomplish the mission of physically covering the entire affected zone & give “First information on damage” through these equipment to the control after passage of the cyclone.

#### **ACTIVATION OF EMERGENCY CONTROL AND NOMINATION OF STAFF FOR VARIOUS DUTIES**

##### **Emergency Controls**

- i. Emergency offices shall be opened in the HQ Control, Divisional Control (affected division) and important junction stations in all case of warning of super cyclone or very severe cyclone storm viz. VZM, CHE, PSA, BAM, KUR, CTC, PRDP & BHC .
- ii. The Divisional and HQ Emergency control shall obtain every two hourly position from Meteorological Office for up to 12 hrs before the likely time of cyclone hitting the coast and thereafter every hour.
- iii The SM shall inform Local Revenue Officers, Sub-Collectors of the area regarding the holding of trains in his station.

##### **Relief Train**

- i. Any available rake of preferably 06 coaches of any type to be nominated and kept ready at VSKP, KUR at least 24 hrs before the cyclone is likely to hit for carrying staff, Doctor, Food, medicines & Relief materials by Operating Department.
- ii. Empty flat wagons (BRH/BRN) will be got placed at suitable sidings (preferably goods platform line with ramps) to enable quick loading of earth moving machinery in consultation with Engineering Department.

#### **Action by Commercial Department**

Enquiry offices should be opened by CCM at important stations with public address system and information about running of trains, arrangements made for supply of food, transshipment of passengers, etc. should be repeatedly given over the public address system for the benefit of the passengers.

#### **Engineering Department**

- i. The ongoing patrolling of track shall be intensified 24 hrs before anticipated strike of the cyclone at locations which are likely to be affected by cyclone. The trains loaded with the 'monsoon reserve' materials (cinders, boulders, quarry dust, empty cement bags filled with earth/sand etc.) will be ordered to run-in consultation with Operating department to the stations near to the last likely affected stations.

#### **17.22.5. Mechanical Department**

- i. The ART, ARME & ARMV staff and crane driver will be kept alert to rush to duties at minimum notice.
- ii. The drinking water, food items (including biscuits & ration) shall be provided on ARTs & ARMVs. ARTs will be equipped with battery operated lamps ~~fuel-patromax/gas lamps~~ & portable generator with adequate provisions for 72 hours.

#### **PREPAREDNESS OF RELIEF MATERIALS, ROAD VEHICLES & EQUIPMENT**

##### **a) Road Vehicles**

All road vehicles including jeeps, cars, light & heavy material carrying vehicles shall be kept in readiness at the nominated Stations/Divisional offices with adequate fuel & two (roster duty) drivers to move men/materials/equipments at minimum notice.

##### **b) Communication Equipment**

As the coastal areas likely to be affected will be quite clear by then, Satellite phones with personnel competent to use, handle & troubleshoot, shall be dispatched to a strategic stations (larger among those likely to be affected).

#### **Stores Department Items**

Preparations for packing, transportation & distribution of materials shall be started. The packing shall be done with water proof packing materials & easy to handle crates (manually).

Nomination of Stores Officer in HQs for coordinating the material supply activities with Officer-in-charge at site/nominated Officers of user department in HQs.

#### **Security**

The Security personnel will be nominated by Sr.DSCs / DSCs at following positions –

- a) To accompany 'relief material' carrying trains when ordered.
- b) To help commercial & station staff of major stations to handle public enquiries etc.
- c) At each station where any passenger carrying train is regulated.
- d) On heavy vehicles carrying relief materials.
- e) At major restoration sites after cyclone recedes & work commences.

## **COORDINATION AT HQ, DIVISIONAL & BOARD'S LEVEL**

A completely fluid inflow of information between HQ, Division & Board's level will be the objective.

- a) The HQs cell will keep the Rly Board cell informed & updated periodically and ask for assistance from the neighbouring (other Railways) as required. It will watch inter-division movement of relief trains, restoration materials and equipments and guide the Division in marking a plan of action for rescue, relief and restoration. It will also be responsible for documenting the developments.
- b) The monitoring cell of adjacent division will be responsible to ensure a complete compliance of HQ instructions as per the disaster management plan worked from their & requiring resources of the division. It will ensure that top priority is accorded to the relief and restoration work in the neighbouring affected divisions.

## **ACTIONS DURING CYCLONE (RELIEF AND RESCUE)**

Heavy devastation is often caused by the cyclonic winds and heavy downpour during the cyclone. The first priority, during cyclonic storm, is therefore to protect the travelling passengers in trains passing through/near to the cyclone affected zone. The action to be taken by different department is as follow.

### **a) Action by Operating Department**

Coaching trains should be controlled/diverted so that the trains do not enter the cyclone affected area, suitable publicity to be arranged. The controlling of trains should, as far as possible, be done where adequate water supply, lighting catering and medical facilities are available.

### **b) Action by Commercial Department**

- i. All Commercial staff should guide the passengers, whether they are on a running train or at a station when the cyclone actually strikes, regarding taking adequate measures for ensuring their personal safety.
- ii. If a train is stranded in the block section, the conductor/TTEs manning the train should take a census of the passengers, and try to pass on the information to the station at either end through the Mobile phones/walkie-talkie sets available with the Guard/Driver of the train so that the information can be passed on to the Divisional Control Office in case communication is available.
- iii. If any passenger is found to have injured during the cyclone, first aid should be provided by the Guard/ TTEs/ Station staff, as the case may be. In case of injured passengers at a station, medical aid as locally available should be arranged. Wherever possible, details of such cases should be passed on the Divisional Commercial Control.

## **POST CYCLONE OPERATION**

### **a) FIRST ASSESSMENT OF DAMAGE**

#### **1. Motor Trolley Survey**

- i. The cyclones and consequent floods, if any, do not damage the continuity of track frame even in case of breaches, washouts, erosions etc. Experience has shown that in most cases, a light motor trolley can pass through the entire cyclone affected zone (on its own power or augmented manually) without much difficulty except if the track frame itself is submerged in water.
- ii. The Officer(s) & staff, nominated & in readiness, as in Chapter 07, should proceed immediately after cyclone has passed off the affected zone. Equipped with satellite phone and VHF sets, the two trolleys – from either end of the affected zone – should proceed through the affected zone and give precise information to control regarding; Nature of damage/obstruction to track with location.

Possible method/system for restoration.

Resources required for restoration.

Whether or not a light vehicle (e.g. Tower Wagon) or light engine or full relief train can pass. Likely time to clear the location by repairing the damage/removing the obstruction.

## **2. Damage assessment**

This will be carried out concurrently and independently with motor trolley survey and will not be called off till completed, to give corroborative information.

## **3. By Boats**

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

### **MOVEMENT OF RELIEF TRAIN FOR RESCUE, RELIEF AND RESTORATION**

- a) On receipt of first information of super cyclone having passed the coast, after assessment of the damaged Railway property or assistance required, all the relief trains on the section must be ordered and should be started with full complement of men, equipment and materials as detailed in Annexure-04. The movement of relief train shall not wait for receipt of detailed report from site. The staff required to move on these trains shall be accommodated on the train itself and should not be allowed to come back home. This may involve organizing supply of food from local sources for staff who have to remain on the relief trains for long hours.
- b) These trains will move up to the neck of the affected zone in normal course. Thereafter, the trains will move forward in such a way that the section in the front is cleared of all physical obstructions to the moving dimensions. It will leave each station after confirming on VHF by the SM with the adjacent station that no breaches/washouts have occurred on that section.

### **MOVEMENT OF RELIEF MATERIALS AND RESTORATION**

#### **a) Engineering Department**

Based on damage report and restoration strategy, priority and sequencing of movement of available materials on wheels (e.g. boulder fillers, earth moving machinery & bridge girder etc.) and labour should be quickly chalked out by Engg. Dept. and conveyed to the Operating personnel at Central Control and respective divisional controls.

#### **b) Electrical Department**

- i. Restoration Work – The damage caused to electrical installations is to be assessed location-wise. For this purpose, competent officials shall be deputed to obtain detailed assessment of the damages. Supervisors/SSE&JEs and staff should be deputed with necessary materials and tools either by Rail or by Road for immediate restoration work.
- ii. In case of power failure at stations where trains are controlled, temporary lighting may be arranged with portable DG sets or through patromax lights.

#### **c) Stores Department**

During restoration, Stores Dept shall play a pro-active role in making emergency purchases preferably by standing Spot Purchase Committee & supplying the same to the user departments at sites.

#### **d) Commercial Department**

Commercial Dept will continue to take action as per para 7.6.

#### **e) Medical Department**

- i. The Medical team will accompany each of the relief train ordered. It will carry with them at least 1,00,000 chlorine tablets and 1000 kgs. of bleaching powder for distribution at various stations.

- ii. The medical team will attend to stranded passengers and Railway personnel and their families for any ailment. For this purpose sufficiently wide portfolio of medicines will be carried in relief trains for various ailments in sufficient quantity.

#### **MOVEMENT OF RELIEF MATERIALS**

- a) CPTM will order the special train for carrying the relief material. Wide publicity shall be given in Press and Media to attract voluntary organizations, individuals, NGOs, medical practitioners etc. to avail of the service. The composition & timings will be planned and publicized.

#### **PROCEDURE FOR ACCOUNTAL, AUDIT & FINALIZATION OF ACCOUNTS;**

- a) **Special Returns by Stockholders after Restoration**  
All stockholders of all departments in-charge of custody of Railway stores shall submit a “special Return” of the material transaction that took place during restoration.
- b) **Emergency Purchase of materials**  
Emergency demands placed through HOD’s notes shall be compiled by the Stores Dept through a Spot Purchase Committee.
- c) **Works Contracts – Single tender and hiring of machinery**  
For restoration of traffic single tenders may be awarded to the competent contactors who have exceptional capacity to mobilize machinery and materials. Prior consent of the General Manager will be taken while processing the case.

==\*=



## (CHAPTER-18)

### FLOOD MANAGEMENT

#### SCOPE

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

The coastal area of East Coast Railway comes under the influence of South West monsoon and is situated along the Bay of Bengal. A large area along the East Coast are prone to cyclone and heavy intensity of rain fall. The recent flood in Balasore district in June 2008, damaged the Railway bridge in Kharagpur Bhadrak section in Howrah Chennai main line of South Eastern Railway, consequently train service in Howrah – Chennai main line via Bhubaneswar remained disrupted for nearly two months.

The flood caused by the Super cyclone combined with huge storm surge of about **230 Kmph during October 1999** in the coastal belt of Orissa in Jagatsinghpur district was the worst of it's kind in the recent past.

#### **Areas of East Coast Railway affected by flood:-**

- North Orissa- This area is flooded by Baitarani and Brahmani rivers. Jajpur, Bhadrak and Cuttack district come under this zone. Every year these two rivers flood a large area and disrupt rail service between Bhubaneswar-Howrah.
- Central Orissa and Coastal Orissa:- Mahanadi river system cause flood in Sambalpur & Bolangir districts of central Orissa as well as Cuttack, Jagatsinghpur, Kendrapara, Jajpur, Nayagarh, Khurda, Puri districts of coastal areas of Orissa.
- Southern Orissa:- Koraput, Rayaguda, Gajapati district come under this zone. Flood generally caused due to Vansadhara and Saleru river system.
- Flash flood- Small culverts located in particularly in coastal areas some times over flow and cause flash floods and disrupt Railway communication.

#### **EFFECT OF FLOOD-**

- Damage to embankment including breaches / wash away of embankments thereby affecting Railway track.
- Rain due to sudden cloud burst resulting in flooding of the Railway track causing sinkage or washing away of track, damaging track components which effect the level and alignment of Railway line and consequently affect the safety of travelling public and disruption to traffic and communication.
- Washing-away or damage bridges, piers, abutment and other components of bridges. Inundate the Railway colony at low level.

#### **INFORMATION AND FLOOD MONITORING SYSTEM:-**

Regional Meteorological Centre, located at Bhubaneswar and Vishakhapatnam, under the administrative control of the Indian Meteorological Department, is responsible for issuing telegrams of warning whenever there is expectation of heavy rainfall. The condition under which warning for flood is issued when amount of rain fall is expected above 75 mm in 24 hours. The warning telegram is issued by I.M.D at Bhubaneswar/ Vishakhapatnam to the Chief Controllers of all the Divisions in East Coast Railway and Central Control at Bhubaneswar. In case of failure of DOT communication system during bad weather, Microwave network of Railway or police wireless systems or satellite phones are used for the purpose.

#### **Action taken before flood :-**

- Co –ordination with Meteorological Department for advance information.
- Data base for RAT/RAW/Vulnerable bridges on topo sheet and information on approach road to location.

- Identification, Inspection and Attention to RAT/RAW & bridges.
- Co-ordination with state Government officials over phone/hot line/satellite phones. Flood monitoring system in addition to patrolling.
- Adequate prevention by executing anti erosion works of tracks, formations, bridges etc., improvement to water ways of bridges in track formation, and with Monsoon Reserve.
- Materials required for flood prevention /management like Empty Cement Bags, sands, boulder etc are stocked and also the sources from where they can be arranged at short notice in case of dire necessity is clearly identified with all details.
- Development of flood shelters for staffs and passengers at suitable locations in the area prone to repeated floods.
- Emergency response team on floods. Emergency equipments and relief logistics. Medical preparedness plan.

#### **PRE-FLOOD PREPARATION - ENGINEERING DEPARTMENT:**

- i) Safety Measures for track during heavy rain:- Gang Patrol during monsoon to detect damage to Track and bridges as per IRPWM Para 1014.
- ii) Night patrolling during monsoon to detect damage such as breaches, settlements, slips as well as scours and immediate action is to be taken to protect the track. Posting of stationary watchman may be considered.
- iii). If it is found that water level has a rising trend to danger level on a river bridge, immediate action to be taken to control /divert the passenger carrying train or impose speed restriction if the situation permits. Constant monitoring is to be done at Officers level.
- iv). Daily patrolling by Key man to inspect entire track daily on foot and take immediate action in cases of any unusual occurrences like heavy rain, flood and land slides.
- v). Deputing Watchman at vulnerable location like bridges, flood cause-way etc , to provide safety of Railway track.
- vi) Check the availability of materials which should be kept at strategic location in East Coast Railway at all time are shown in Annexure -6.
- vii) Choked drains in the Railway colony to be cleaned before monsoon so that rain water can freely flow and the Railway colony is not submerged in water.
- viii) Materials required for flood management like empty cement bags, sand, boulder, cinder etc is stocked at strategic location and also the source from which it can be arranged at short notice in case of dire necessity clearly identified.
- ix) Standing arrangements on “whenever required” basis should exist for supply of adequate rake loads of steel plant slag with Vishakhapatnam and Public and Private sector steel plant and quarry dust with ballast from contractors.
- x) As restoration of traffic after flood often requires heavy handling of earth, availability of heavy earth moving machinery viz. Procleans, JCBs and Pay loaders etc., should be identified in the nearby coastal town with firm / Owners name, address and telephone no so as to hire and mobilize them as and when necessity arises.
- xi) Standing contract with 100% option clause may be entered into on annual basis from strategic quarry dust and boulder supply locations etc.

#### **LIST OF STORES AND STORAGE LOCATIONS.**

Since the time available between initial warning and up to the actual occurrence of flood and its damages/disruptions is often very short, pre-emptive action is essential to ensure adequate preparedness in terms of stores and equipments necessary to deal with the disruption/damages.

#### **STORES DEPARTMENT.**

Stores Department will ensure stock of items with quantities given in Annexure-5. The locations for stocking of these materials shall be at stores in East Coast Railway which are accessible by rail as well as road.

### **ELECTRICAL DEPARTMENT.**

The items, quantity and location of electrical materials to be kept ready as pre-flood measure at annexure 7. In addition to these materials, the location of additional generator cars should be identified in advance so that they can be requisitioned from other Division/Railway in case of necessity.

### **MECHANICAL DEPARTMENT.**

Mechanical Department during pre- flood preparation need to identify about 18 over aged(fit to run) four wheeler tank wagons suitable for loading drinking water and made available at KUR, VSKP and SBP (@6 X 3) for loading and movement.

### **S&T DEPARTMENT.**

During flood the communication link is cut off. In such cases VHF sets for short distance communication and satellite phones for long distance communication are the only means available for exchange of vital information. Following pre-flood arrangement should be made:-

- i) Availability of emergency generator for charging of VHF sets at all nominated stations with adequate fuel.
- ii) The satellite phones should be kept in working order at Chandra sekharpur/ Bhubaneswar, Divisional Control Offices of KUR, WAT & SBP as well as all other strategic locations.
- iii) Spare 5 & 25 W VHF sets complete with battery and antenna to the extent of 25% of total sets provided in division should be available with SE/T/Wireless in-charge as well as all other strategic locations on East Coast Route.
- iv) One extra DG set along with 02 number of 20 liter capacity jarken full with fuel should be stored at each of the three locations ( KUR,VSKP & SBP)

### **MEDICAL DEPARTMENT.**

Railway Medical Department will be prepared for management of flood casualties. Intravenous (IV) fluid, oxygen, dressing materials, tetanus, toxoid, antibiotics, vaccines, anti snake venom and anti diarrhoea drugs will be the most commonly needed medical resources . These medicines should be stored in the divisional Railway hospitals and health units over East Coast Railway.

Medical Department will keep the following items in stock at the location indicated against each as preparedness for flood even during pre-flood season.

<b>Material</b>	<b>Quantity.</b>	<b>Location.</b>
Chlorine tablets	01(one) Lac	KUR &WAT
Bleaching powder	50(Fifty) Bags	KUR & WAT

### **ACTIVITIES DURING FLOOD.**

Opening of Control Room at Zonal HQ and Division to be managed by Operating Department round the clock in shifts.

First priority, during flood, is to protect the travelling passengers in the train passing through/ near the affected zone. Whenever incident of flood occurred in any Railway area the respective DRM of the division should immediately take the situation under control and pass order to the different department to take necessary relief and rescue measures for the passengers of the affected train.

Local Law and order authorities may be kept in touch as in flood affected Zone, the local public some times take shelter on embankment making movement of train difficult. Adequate patrolling staff with PA systems may be kept in readiness for the purpose.

DRMs are empowered to requisition help from nearest NDRF and ODRAF battalion through HQ as per Act 2005 for relief and rescue of the passengers in the situation when a passenger train is washed away partly / fully by flood, where boats and divers are essential.

## **POST-FLOOD/EARTHQUAKE DISASTER PLAN – (PREPARATION) –**

### **Post – Flood/Earthquake Disaster Plan -**

After a major disaster, the first priority is to provide relief and medical aid to affected persons to minimize loss of lives. During the disaster like Gujarat earthquake, roofs of several quarters in Railway colony had collapsed. A number of families were rendered destitute. During earthquake others, whose dwellings were intact, preferred to live outside because of fear of continuing tremors. The water and electric power supply to Railway stations and colonies had been disrupted. Fortunately, there were no stranded passengers and no trains in mid- section. Rail infrastructure had been extensively damaged. Communication channels were down and organization was in disarray as most Officers and supervisors in the affected area were themselves victims of damage. Movement of men and material for rescue and relief in such circumstances becomes a challenging task. The Divisional Control office should function under the direct charge of ADRM. Assistance of headquarters office can be sought for mobilizing relief from outside the Division also.

### **ACTION BY OPERATING DEPARTMENT.**

In the event of severe disaster like flood/earthquake situation when it is not feasible to continue the normal train operations due to damage at various locations in this Railway, it is necessary to have a central organization which can receive information, messages and reports etc., from the affected areas and issue necessary instructions as required. For this purpose a “**Central Emergency Control Office**” at HQ and Divisional level will be set up. These emergency control offices shall be opened in the **Disaster Resistance Control Room**. CPTM will be the chief emergency officer at HQ and Sr.DOM will be the Divisional emergency officer at Divisional Level. In addition to this, emergency offices shall be manned by emergency officers as nominated by GM and DRMs for the round the clock operation at HQ and Division respectively. The emergency offices will work in three shifts of 08 hourly basis as mentioned below.

Shifts	Central Emergency Office	Divisional Emergency Office
1st shift	06:00 – 14:00 hrs	08:00 – 16:00 hrs
2nd shift	14:00 – 22:00 hrs	16:00 – 24:00 hrs
3rd shift	22:00 – 06:00 hrs	00:00 – 08:00 hrs

- i) An Emergency Control Order register shall be opened at HQ and Divisional Level and every message communicated between HQ, Division and other Officer/Organisations should be recorded bearing message nos serially. Making over and taking over charges should also be recorded in this register along with important remarks if any. Means of communication if disrupted will be immediately restored (by satellite phone, VHF & wireless) and made known to all concerned.
- ii) Chief Emergency Officer will decide and communicate to the DRMs about the cancellation, rescheduling and short termination of passenger trains.
- iii) Coaching trains should be controlled/diverted so that the trains do not enter the earthquake affected area, suitable publicity to be arranged. Controlling of trains should, as far as possible, be done where adequate water supply, lighting, catering and medical facilities are available.
- iv) When control communication is damaged, provision of VHF sets for station to station for train working on “paper line clear” should be made till more permanent arrangement is arranged.
- v) Cancellation/diversion of trains should be widely announced through News Papers, TV, News Channels, All India Radio and Public address system.
- vi) Movement should be done on top priority for restoration material, equipments, labours and other items for restoration work as demanded by site officials.

### **ACTION BY COMMERCIAL DEPARTMENT**

- i) All commercial staff should guide the passengers and volunteers, whether they are on a running train or at station when train services is affected by earthquake, regarding taking adequate measures for ensuring their personal safety.

- ii) Food and water should be arranged for the entrapped passengers & victims.
- iii) Alternative arrangement should be made for the passengers for safe journey to their destination.
- iv) If a passenger train is stranded in the earthquake affected zone, the conductor/TTEs manning the train should take census of passengers, and try to pass information to the station at either end through walkie-talkie set, so that information can be passed on to the Divisional control office.
- v) If any passenger is found injured or sick, First Aid should be provided by the guard/TTEs of the train.
- vi) If a Railway colony is affected in earthquake, the victims and residents of the colony to be shifted to a safe place as quick as possible.

**ACTION BY MEDICAL DEPARTMENT.**

Doctors & Paramedical staffs should be rushed to the site with medical kits, where the victims and train passengers are entrapped in a train or at a station to provide medical help.

**ACTION BY ENGINEERING DEPARTMENT**

- i) The Officers and staff should proceed immediately to affected zone as soon as information received equipped with satellite phone and VHF set to give precise information to control office regarding;
  - a) Nature of damage/obstruction to track & colonies with location.
  - b) Possible method /system for restoration.
  - c) Maximum resources required for taking out the victims,
  - d) Whether or not a light vehicle can be used for the same.
  - e) Likely time to clear the victims trapped under debris from location by repairing of the damaged/ removing the obstruction.
- ii) In circumstances when substantial portion of the track installations get blocked under debris, Vehicles/helicopters shall be hired locally to navigate across the affected area to assess the damage.
- iii) Based on the damage report and restoration strategy, priority and sequencing of movement of available materials on wheels (e.g. boulders, earth moving machinery, bridge girder and cranes etc) and labour should be quickly chalked out and conveyed to the Traffic personnel at Central Control and respective Divisional control.
- iv) Heavy Earth Equipment, road cranes etc., may be requisitioned as per requirement from the sources within the Division and out side.

**ACTION BY ELECTRICAL DEPARTMENT.**

- i) Damage caused to electrical installations is to be assessed location wise. For this purpose, competent officials shall be deputed to obtain detailed assessment of the damages. Supervisors and staff should be deputed with necessary materials and tools either by rail or by road for restoration work for supplying Power to affected area and lighting arrangement for rescue and restoration..
- ii) In case of power failure at station where trains are controlled, temporary lighting may be arranged with portable DG set.

**ACTION BY MECHANICAL DEPARTMENT.**

- i) The ART/ARME staff and crane with crane driver will be kept ready to rush to duties at minimum notice whenever required.
- ii) Drinking water, readymade food items shall be kept ready on ART/ARME. ARTs will be equipped with battery operated lamps and portable generator with adequate provision for 120 hours.

**ACTION BY SIGNAL & TELECOMMUNICATION DEPARTMENT.**

- i. S&T department will look after the communication system at affected zone. For this purpose they will do the following activities:-

- ii. Check the 25 W VHF set provided at each station functioning properly & battery is fully charged.
- iii. Check the emergency generator set is functioning properly with adequate fuel.
- iv. Check that fuel supply tanks of the generator set have been full filled and adequate fuel for 72 hrs has been checked.
- v. Check and align all Microwave equipment and battery of DG sets with adequate fuel.
- vi. Keep MAST riggers, Transport, Fuel ready to attend any disturbance to antenna and lower mounting.
- vii. Telecom channel via alternative routes should be lined up and kept terminated for administrative trunks and control working.
- viii. Satellite phones where ever available should be tested and accompanying staff identified along with battery charging arrangement.
- ix. Communication equipment in ART should be tested for proper working order.
- x. Check all the Block Instruments and their batteries.
- xi. Extend power supply from emergency generator set to Block Battery charger.

#### **ACTION BY STORES DEPARTMENT**

During restoration, Stores Department shall play a pro-active role in making emergency purchases preferably by standing Spot Purchase Committee & supplying the same to the user department at sites.

#### **ACTION BY SECURITY DEPARTMENT.**

Security personnel will be nominated by Sr.DSC/DSC at following position-

- a) To accompany the relief material carrying train when ordered.
- b) To help commercial & station staff of major station to handle public enquiries. c). At each station where passenger train is regulated.
- d) On heavy vehicle carrying relief materials.
- e) At major restoration sites after earthquake work commences.

#### **MOVEMENT OF RELIEF MATERIALS.**

CPTM will order the special train for carrying the relief material. Wide publicity be given in Press and Media to attract voluntary organization, individuals, NGOs, Medical practitioners etc to avail the service. The composition and timings will be planned and published by CPRO.

#### **PROCEDURE FOR ACCOUNTED, AUDIT & FINALIZATION OF ACCOUNTS.**

- i). Special Returns by Stockholders after restoration.
- ii). All stock holders of all departments in-charge of custody of Railway stores shall submit a "Special Return" of the materials transaction that took place during restoration.

#### **EMERGENCY PURCHASE OF MATERIALS**

Emergency demands placed through HOD's notes shall be completed by the Stores Department through a Spot Purchase Committee.

#### **WORK CONTRACTS- SINGLE TENDER AND HIRING OF MACHINERY.**

For restoration of traffic single Tender may be awarded to the competent contractors who have the exceptional capacity to mobilize machinery and materials. Prior consent of the General Manager will be taken while processing of the case.

#### **EXTERNAL ASSISTANCE :**

Devastation in Earthquake does not get limited to Railway. As such Co- ordination with District Administration through NDMA, State DMAs is an absolute necessity for both availing and rendering help.

All road transport available outside are generally requisitioned by Civil Administration for relief supply. Expeditionary clearance and delivery of relief material should be planned with District Administration by Commercial Department. Similarly Engg. Dept. should co-

ordinate with Dist. Administration for debris clearance and track restoration by earth moving machinery, road cranes, tippers etc., available locally as command of these are generally taken over by Dist. Administration.

Once rail working is restored, movement of relief materials through train is to be co-ordinated with Dist. Administration by Operating Department.

Specialised trained staff and equipments for rescue of passengers/ dwellers may be co-ordinated through State DMA(like ODRAF of Orissa).

Provisions for affected families in Railway colonies may not be available for considerable period. Help of NGOs may be taken to open fair price shops.

- A). Help of military/ para military forces, requirement of boats, divers, helicopters etc., may be availed through NDMA and State DMAs.
- B). Help of Local Hospitals to be co-ordinated through State DMAs and medical Department.
- C). Railway may provide mobile Medical facility to staff and civilians by self propelled mobile medical units(ARME)

## **What to do before a flood?**

### **To prepare for a flood, you should:**

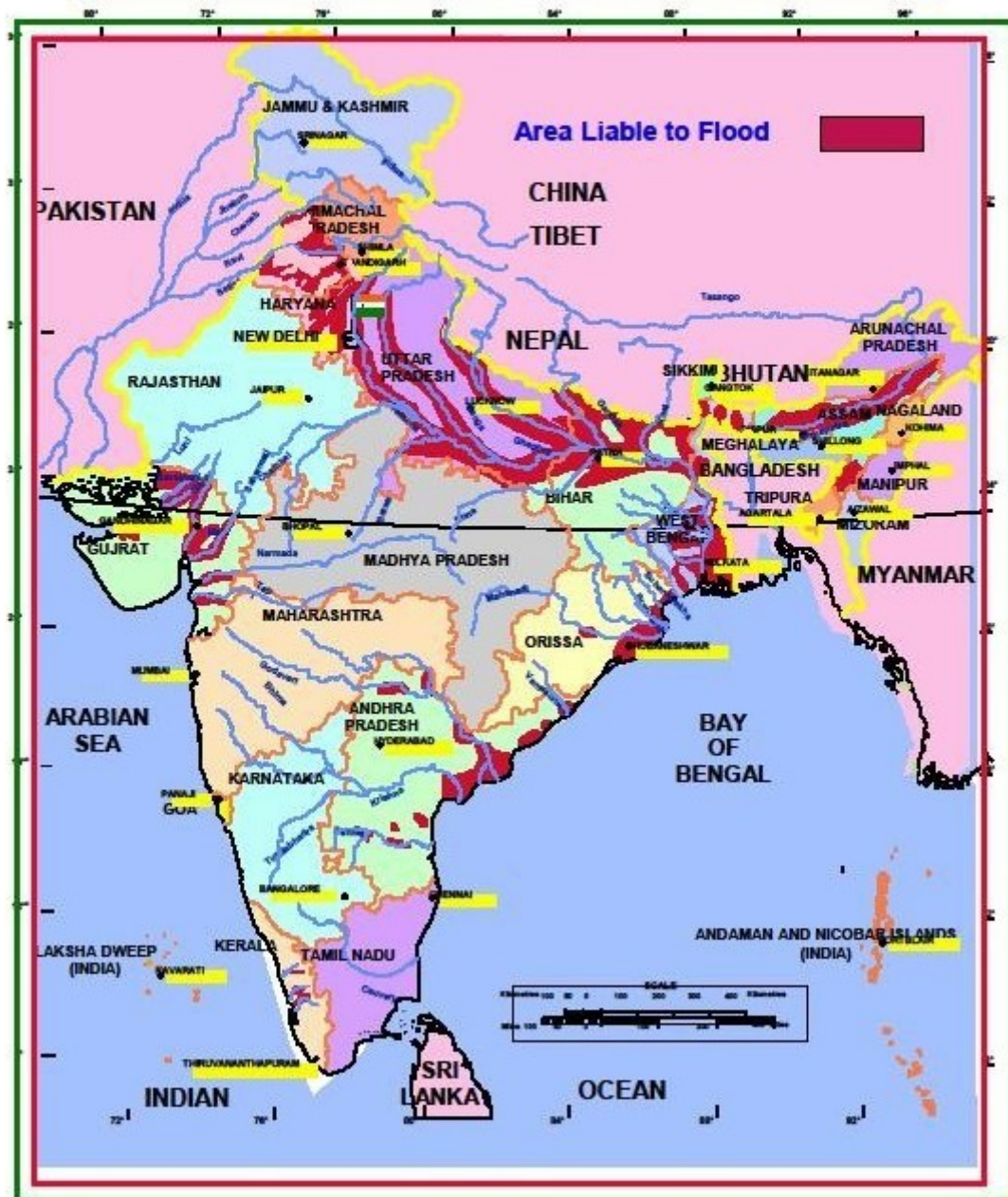
- Avoid building in flood prone areas unless you elevate and reinforce your home.
- Elevate the furnace, water heater, and electric panel if susceptible to flooding.
- Install "Check Valves" in sewer traps to prevent floodwater from backing up into the drains of your home.
- Contact community officials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

### **If a flood is likely to hit your area, you should:**

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

# INDIA

## AREA LIABLE TO FLOODS



==\*



## (CHAPTER – 19)

### EARTHQUAKE MANAGEMENT

#### INTRODUCTION

Considering Precambrian geological set-up in major parts of Orissa, seismicity is relatively high as evident from the number of earthquakes in the hard rock terrain. A couple of events originated close to the basin marginal faults of Gondwana Garben. Records of historical seismicity indicate activity along the Orissa Coastal belt also.

As per the recent categorization, the country has been divided into four zones. Similarly the Seismic Zoning of Orissa has been revised and Orissa falls between Zone II to III, i.e. low damage risk zone and moderate damage risk zones. However, it may be noted that major part of Gujarat, including Ahmedabad, also comes in the moderate zone but Ahmedabad City was badly affected by the impact of the Bhuj earthquake. The details of the location of the district according to seismic zones is given in the Table below and in the map enclosed in Annexures-35 & 36.

The jurisdiction of ECoR like Bhubaneswar, Cuttack, Paradip, Puri and the critical Hirakud Dam fall within the Zone-II (Low damage risk zone), while VSKP and KK line comes under Zone-III (Moderate damage risk zone). The city of Ahmedabad, which was badly affected by the impact of Gujarat earthquake 2001, is also located in the moderate damage risk zone. District coming under

#### **Low Damage Risk Zones**

Bargarh, Sambalpur, Anugul,  
Dhenkanal, Jajpur, Cuttack, Khurda,  
Puri, Bhubaneswar, Cuttack,  
Jagasinghpur, Kendrapada, Bhadrak.

#### **Moderate Damage Risk Zones**

Koraput, Rayagada, Gajapati,  
Ganjam, Bolangir, Srikakulam,  
Vizianagaram, Visakhapatnam.

#### **SEVERITY IDENTIFICATION :**

Measure of intensity of earthquake according to Modified Mercalli (MM) scale and its possible impact is given below:

#### **MM scale      Measure of intensity described in terms of possible impact**

#### **intensity of earthquake**

I	Not felt except by a very few under especially favourable circumstances.
II	Felt only by a few persons at rest, especially on upper floors of building.
III	Felt quite noticeably indoors, especially on upper floors of buildings.
IV	Felt by many indoors, during the day by a few outdoors. At night some are awakened. Dishes, windows, doors are disturbed. Standing motorcars rock noticeably.
V	Felt by nearly everyone, may awaken . Some dishes, windows, etc., broken; Pendulum clock may stop.
VI	Felt by all : many frighten and run outdoors. Heavy furniture may move. A few instances of fallen plaster or damaged chimneys - damage slight.
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction, slight to moderate in well built ordinary structures, but considerable in poorly built or badly designed structures.
VIII	Damage slight in specially designed structures; considerable in ordinary structures and great in poorly built structures. Fall of chimneys, stacks and columns. Persons driving motorcars are disturbed.
IX	Damage considerable, even in especially designed structures; well-

- designed frame structures thrown out of plumbing. Buildings shift off foundations. Ground cracked conspicuously.
- X Some well-built wooden structures destroyed; ground badly cracked; rails bent. Landslides and shifting of sand and mud.
- XI Few, if any (masonry) structures, remain standing. Broad fractures, on ground.
- XII Damage total. Waves seen on ground surface. Lines of sight and level distorted. Objects thrown upward into the air.

The technical paper of GIS states that ORISSA, if at all, experiences any earthquake, it may attain the intensity of 5.9 on the Richter scale. Accordingly, the intensity as per modified Mercalli scale goes in the rang of VI & VII.

<b>Richter Scale Magnitude (M)</b>	<b>Modified Mercalli Scale Intensity (MM)</b>
5.0 – 5.9	VI – VII
6.0 – 6.9	VII – VIII

### **Pre Earthquake Disaster Management Plan**

Warning and disaster preparedness are the important components of pre-disaster plan. However, in case of earthquake, there is very little scope of prior warning since the event comes very suddenly. The critical factors responsible for the high seismic risk zone in India and consequently the identified six sets of critical interventions have been presented as the six pillars of earthquake management.

- a. Ensure incorporation of earthquake-resistant design features for the construction of new structures.
- b. Facilitate selective strengthening and seismic retrofitting of existing priority and lifeline structures in earthquake-prone areas.
- c. Improve the compliance regime through appropriate regulations and enforcement.
- d. Improve the awareness and preparedness of all stakeholders.
- e. Introduce appropriate capacity development interventions for effective earthquake management (including education, training, R&D, and documentation).
- f. Strengthen the stakeholders for emergency response capability in earthquake prone areas. The pre-disaster preparedness for ECoR is identified as below –
  - i. Hazard Zone mapping. Mapping of earthquake vulnerable zones and superimposing details of vulnerable structures, infrastructure, vital installations.
  - ii. Record detailed inventory of major infrastructures such as Rly. buildings, Bridges, yards, signalling telecom network, OHE & vital installations like Work shops, Diesel and Electric loco sheds and Hospitals. Set up assessment teams comprising of representatives from the Civil, Electrical, Signal & Telecommunication, Security, Mechanical and Medical disciplines.
  - iii. Settlement locations and population inventory.
  - iv. Creation of data-bank of existing structures within Railway Jurisdiction for new and existing infrastructures need retro-fitment along with Cyclone, flood and Land slide data in tabular form for reviewing of preparedness.
  - v. Assessing vulnerability of structures and prioritizing vulnerable structures based upon structure falling within particular seismic zone, importance of structure.
  - vi. Developing retrofitting methods. Service of IITs, SERC Rorkee and independent consultants can be utilized.
  - vii. Sanctioning of works and undertaking retrofitting to strengthen vulnerable structures if required.
  - viii. Medical preparedness to deal with emergency medical response. Medical preparedness will focus on likely injuries, out break of diseases and other post earthquake health problem including psycho-social trauma. Mock drills to be organized.
  - ix. Adequate training /exposure of Railway officials to earth quake resistant design, construction, retrofitting, knowledge of various codes, manuals, articles etc on earth quake

resistance technique. Interaction with other agencies like, IITs, SERC Rorkee, CBRI, CRRI etc.

- x. Tie up should be made with State DMAs and through them other local military/para military units and public hospitals.

### **Emergency Response Plan**

- i. In the event of an earthquake striking some area, the IMD and GSI seismic observation centres give the exact location of the epicentre and the intensity of the earthquake on the Richter scale. With this information in hand, the disaster emergency squad will make an immediate visit to the spot of the affected area for a quick on-site assessment of the situation. Simultaneously, there will be a public announcement about the epicentres and probably affected area and the intensity of the earthquake. The emergency squad on ground shall take video photographs of the affected area. The on-site visit and assessment shall be completed within hours and such news will be broadcast through All India Radio and Door Darshan as well as through Rly. Communication network and other means for information to the public and also to the people in the affected area.
- ii. The information on affected area as well as the first assessment of the emergency squad will be immediately super-imposed in the hazard zone map. The Control Room at the particular affected areas as well as the Central Control Room will be put under red alert within the shortest period after the earthquake strikes.
- iii. A good pre-disaster preparedness plan results in a very good emergency response plan in the time of need.

### **Post - Earthquake Disaster Plan -**

See para 18.13 to 18.18.05.

**The Photograph of Earthquake zone is available in annexure-35**

==\*=

## **(CHAPTER – 20)**

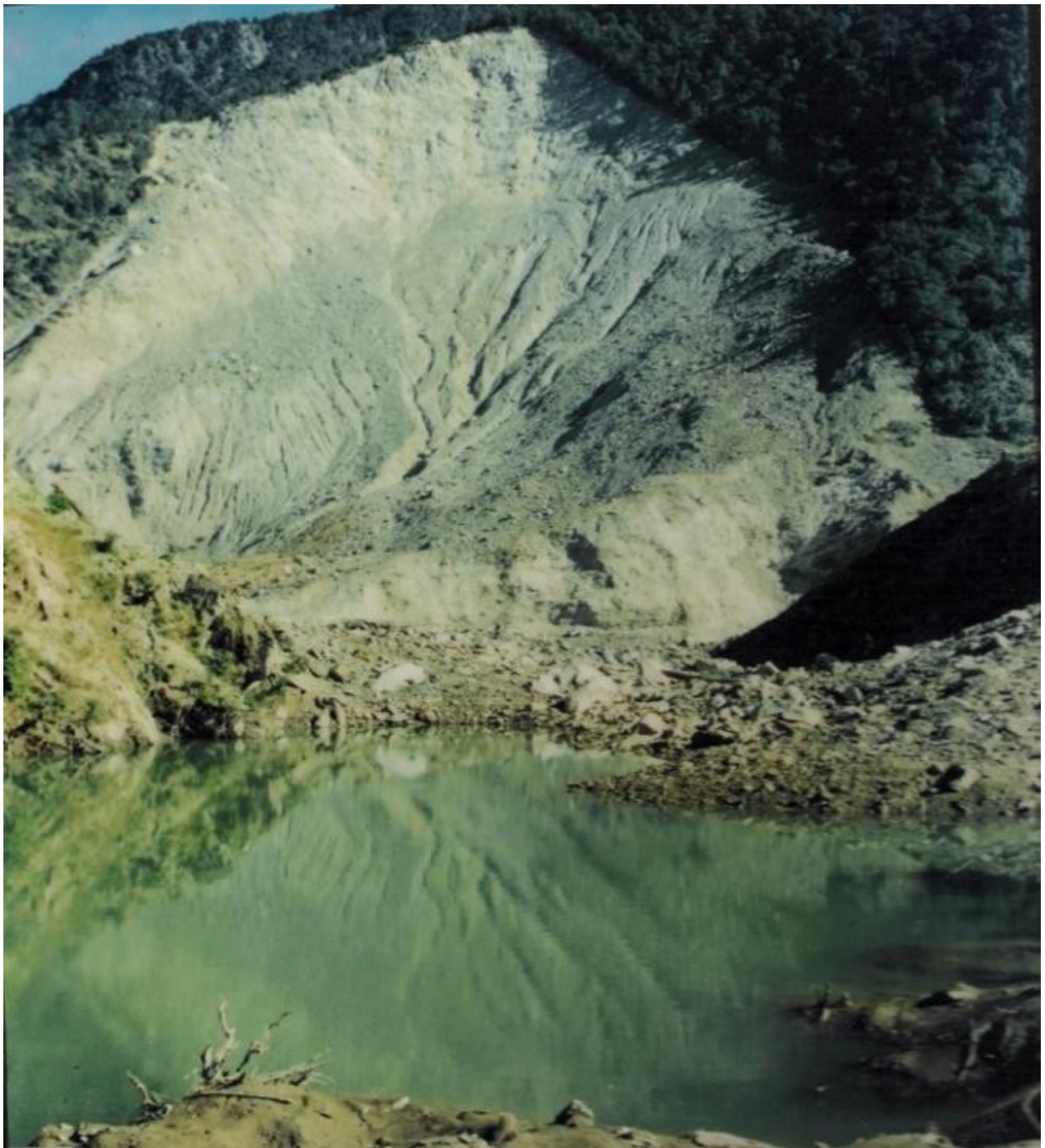
### **LAND / HILL SLIDE**

#### **Information**

##### **- Landslide**

India has the highest mountain chain on earth, the Himalayas, which are formed due to collision of Indian and Eurasian plate, the northward movement of the Indian plate towards China causes continuous stress on the rocks rendering them friable, weak and prone to landslides and earthquakes. The slow motion of the Indian crust, about 5 cm/year accumulates stress to which natural disasters are attributed. Some landslides make unique, and unparalleled catastrophes. Landslides and avalanches are among the major hydro-geological hazards that affect large parts of India besides the Himalayas, the Northeastern hill ranges, the Western Ghats, the Nilgiris, the Eastern Ghats and the Vindhya, in that order, covering about 15 % of the landmass. The Himalayas alone count for landslides of every fame, name and description- big and small, quick and creeping, ancient and new. The Northeastern region is badly affected by landslide problems of a bewildering variety. Landslides in the Darjeeling district of West Bengal as also those in Sikkim, Mizoram, Tripura, Meghalaya, Assam, Nagaland and Arunachal Pradesh pose chronic problems, causing recurring economic losses worth billions of rupees. A different variety of landslides, characterized by a lateritic cap, pose constant threat to the Western Ghats in the South, along the steep slopes overlooking the Konkan coast besides Nilgiris, which is highly landslide prone.

Some spectacular events of tragedies are reported as Varnavat landslide, Uttarkashi District, Malpa landslide Pithoragarh district, Okhimath landslide in Chamoli district, UK and Paglajhora in Darjeeling district as well as Sikkim, Aizawl sports complex, Mizoram. These are some of the more recent examples of landslides. The problem therefore needs to be tackled for mitigation and management for which hazard zones have to be identified and specific slides to be stabilized and managed in addition to monitoring and early warning systemsto



be placed at selected sites. The Photograph of Okhimath landslide which formed a lake in Madhyamaheshwerganga, Rudraprayag district.

When a huge land/rock mass suddenly gets displaced from its position and comes down with tremendous force, it can cause intensive damage to Rly. Track, Buildings and other Railway Installations, with blocking of traffic movement. It can also cause loss of human Lives. This can be caused due to prolonged torrential rain, blasting of rock nearby and Earthquake etc.

#### **Actions to be taken in during Land/Hill Slide**

After receiving the message from the concerning Station Master under whose jurisdiction the Section is situated, the Section Controller will inform concerning Operating Officer to stop the movement of trains in the adjacent sections and inform DRM/ADRM, Sr.DEN(Co-ord) (through Engg. Control), Sr.DME, Sr.DEE(OP), DSC and other Concerning Branch Officers.

DRM with Sr.DEN(Co-ord) and Sectional DEN will proceed to site. ART/MRT will be ordered, if required.

Sr.DEN(Co-ord) will requisition earth moving equipments including, Pay loader, JCB, Dozer, Proclains & Jack Hammer Dumper & Trucks from the nearest available Railways & Non-Railway sources.

Licensed Rock Blasting staff, with sufficient quantity of explosive & detonators, Rock drills, Rock drilling equipments and Air compressors available from the nearest sources also should be rushed to the site. Only trained experts having license to handle explosive should only be deployed for rock blasting.

DRM, after getting detailed information from site will seek the help of Army, Border Road Organization Units, as the case may be.

Sufficient quantity of explosive & detonators has to be sent to the site for replenishment.

The residents of the nearby houses/Staff quarters must be evacuated to safer places before starting the Blasting of Rocks.

Requisite quantity of P. Way material should be kept ready in the nearest station to move to the site incase the P. Way is damaged.

Similarly, Signaling, Elect., TRD staff also should be kept in readiness with men & materials for immediate repair of installation.

Sufficient number of labours to be requisitioned and deployed at site to help in clearing the landmass.

Causality/injured persons/staff should be shifted to nearest Hospital for treatment.

The loose boulders to be dislodged and the need for flattening its slope by earthwork orprotection of cutting by boulders nets or rock bolting or short creating to be explored.

## **- Recover and build**

Remain calm and be alert and awake, listen to warnings of heavy and prolonged period of rainfall from weather station, if your home is located below a debris covered area move away to safer place, listen to sounds of rock fall, moving debris and cracking of trees, or cracks in ground or any movement.

Keep a battery operated ready for the night.

Call and help rescue teams, keep drinking water containers, first aid kit and essential medicines and avoid entering damaged houses.

Watch for flooding if close to river, help others who need help especially elderly people, children and women, seek advice from local authorities for rebuilding damaged houses, roads etc.

Report any damage of roads, power and telephone lines to concerned authorities.

### **Preparedness for Management of land/hill slides:**

- Vulnerable areas for land /hill slides in ECoR territory to be identified/reviewed by the Engineering Dept based on past history , actual survey , etc., in accordance with relevant paras of IRBM (Chapter-10) and in consultation with expert organisations like Geological Survey of India/Ministry of Mines and special precautions taken accordingly. User friendly landslide maps to be prepared by the Engineering Department and to be displayed.
- **Early Warning System(EWS):-**  
Basically the land / hill slide occurs following the major rain fall & earthquake. For early warning, the Engg department should develop the Numerical Weather Prediction (NWP) , Automatic rain gauges , Wireless Sensor Network ( WSN) , Micro- Electro Mechanical Sensors (MEMS) to cover the vulnerable locations in the division in consultation with State & Central Govt. During monsoon season, Engg .Control should keep close liaison with IMD (India Meteorological Department) in the state & State Disaster Management Authority..
- Rainfall pattern and data base on rainfall should be analyzed to understand the variability of rain in the region / territory land slide in ECoR

### **Awareness Programmes & Training:-**

- i) Division should ensure by arranging regular pre-monsoon trainings that field staff of engineering as well as other departments are conversant with their respective duties during accident/ land slide.
- ii) User friendly land slide maps to be prepared by Engg Dept and displayed at stations & offices prone to land slide area. Some vulnerable locations of land slide, boulder falling and floods in the ECoR zone causing interruption to traffic in the past are enclosed ***at Annexure.***
- iii) The field staff of P.Way , works and other train passing staff should be trained regarding land slide precaution , search & rescue operations etc. which should be organised by division in coordination with NDRF.
- iv) Engineering department should arrange to develop a special team of civil engineers to receive specialized training/knowledge regarding land/hill slides and response to it during emergent situations by coordinating with institutions like NIDM, New Delhi.

==\*=

## (CHAPTER-21)

### HEAT WAVE

#### Heat Wave:

A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heat Waves typically occur between March and June, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

The Indian Meteorological Department (IMD) has given the following criteria for Heat Waves

- Heat Wave need not be considered till maximum temperature of a station reaches atleast 40°C for Plains and atleast 30°C for Hilly regions
- When normal maximum temperature of a station is less than or equal to 40°C Heat Wave Departure from normal is 5°C to 6°C Severe Heat Wave Departure from normal is 7°C or more
- When normal maximum temperature of a station is more than 40°C Heat Wave Departure from normal is 4°C to 5°C Severe Heat Wave Departure from normal is 6°C or more
- When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared. Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.

Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.

#### Health Impacts of Heat Waves

The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:

- Heat Cramps: Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- Heat Exhaustion: Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- Heat Stroke: Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potential fatal condition

#### Do's and Dont's

**Heat Wave conditions** can result in physiological strain, which could even result in death.

To minimise the impact during the heat wave and to prevent serious ailment or death because of heat stroke, you can take the following measures:

- Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- Drink sufficient water and as often as possible, even if not thirsty
- Wear lightweight, light-coloured, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- Avoid strenuous activities when the outside temperature is high. Avoid working outside between 12 noon and 3 p.m.
- While travelling, carry water with you.
- Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.



- Avoid high-protein food and do not eat stale food.
- If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs
- Do not leave children or pets in parked vehicles
- If you feel faint or ill, see a doctor immediately.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. which helps to re-hydrate the body.
- Keep animals in shade and give them plenty of water to drink.
- Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- Use fans, damp clothing and take bath in cold water frequently.

#### **TIPS FOR TREATMENT OF A PERSON AFFECTED BY A SUNSTROKE:**

- Lay the person in a cool place, under a shade. Wipe her/him with a wet cloth/wash the body frequently. Pour normal temperature water on the head. The main thing is to bring down the body temperature.
- Give the person ORS to drink or lemon sarbat/torani or whatever is useful to rehydrate the body.
- Take the person immediately to the nearest health centre. The patient needs immediate hospitalisation, as heat strokes could be fatal.

### **Acclimatisation**

People at risk are those who have come from a cooler climate to a hot climate. You may have such a person(s) visiting your family during the heat wave season. They should not move about in open field for a period of one week till the body is acclimatized to heat and should drink plenty of water. Acclimatization is achieved by gradual exposure to the hot environment during heat wave.

### **Recover and Build**

#### **If you think someone is suffering from the heat:**

- Move the person to a cool place under the shade
- Give water or a rehydrating drink (if the person is still conscious)
- Fan the person
- Consult a doctor if symptoms get worse or are long lasting or the person is unconscious
- Do not give alcohol, caffeine or aerated drink
- Cool the person by putting a cool wet cloth on his/her face/body
- Loosen clothes for better ventilation

### **Emergency Kit**

- Water bottle
- Umbrella/ Hat or Cap / Head Cover
- Hand Towel
- Hand Fan
- Electrolyte / Glucose / Oral Rehydration

==\*=

## **(CHAPTER-22)**

### **TERRORISM DISASTER**

#### **TERRORISM: -**

Politically motivated and perpetrated in a clandestine manner against non-combatants. The act is committed in order to create a fearful state of mind in an audience different from the victims.

**Loss of terrorist attack: -** Terrorism is a manmade disaster and cost the most in terms of the followings;

- Loss of lives
- Loss of properties.
- Workers' compensation.
- Accident and health.
- Disability.
- Political and social instability in the region and between countries.
- Long term damage to a country's economy and production capacity

**Types of Terrorism-**Researchers in the United States began to distinguish different types of terrorism such as Hijacking, Bombing, Diplomatic kidnapping and assassination to assert their demands.

#### **Some terrorist attack in India:-**

On Dec.13, 2001, in a suicide attack on Indian Parliament, nine police men and parliament staffer were killed. On June 22, 2000, two powerful car bomb explosion took place in south Mumbai killing at least 46 people. On 22 Jan.2002, militants attacked American cultural centre in Kolkata, killing four police and injured 21. On 1st Oct.2001, a car bomb exploded near the state Assembly J&K, killing 38 people. On July 2005, Jaunpure train explosion at least 10 people were killed and more than 50 were injured. On 29 Oct.2005, bomb blast in New Delhi , 70 people were killed and several injured. On March 2006, serial blast in Varanasi, at least 100 were injured. On 11 July 2006 , Mumbai train blast , at least 190 people were killed in the 1st class compartment. On 26th Nov.2008, terrorist attacked Taj hotel in Mumbai and killed at least 185 people and injured more than 300.

#### **TERRORISM MANAGEMENT MEASURE:-**

##### **Before terrorist attack-**

- Keep security alert and aware of the surrounding area.
- Take precaution when travelling. Be aware of conspicuous or unusual behaviour. Do not accept packages from strangers or leave luggage unattended.
- Leave where emergency exits are located. Think ahead about how to evacuate a train, subway, building or congested public area. Learn where stair case are located.
- Terrorist may damage the Railway track or Railway bridge, therefore patrolling to be intensified. In a terrorist attack there may be many injured, so medical department should store sufficient stock of life saving drugs and blood.
- The explosion can result in collapsed building and fire. People who live or work in a building review emergency evacuation procedure and know where fire exits are located.
- There may be general Power Supply (Electricity) failure during a terrorist attack. One Power Car of suitable capacity per Division at Divisional Head Quarter may be kept.
- If you receive a bomb threat, get as much information from the caller as possible. Keep the caller on line and record every thing that is said. Notify the police and building management.

- During terrorist attack train may be detained for a long period due to damage of traction installation. On receiving warning messages from authorized sources, Diesel power(engine) should be kept ready as stand by at suitable strategic locations.
- After you have been notified of a bomb threat, do not touch any suspicious packages. Clear the area around the suspicious packages and notify the police immediately. In evacuating a building, avoid standing in front of window or other potentially hazardous area.
- Install Video camera at busy Railway station to watch movement of suspicious person.
- Bomb detecting machine to be installed at every important Railway stations to examine the luggage of the passengers boarding a train.
- Random checking of the luggage of the passengers.
- Deploy sufficient number of RPF staff at stations and on trains. Tight security at all work places and residential colony.

#### **During terrorist attack-**

- In a building/train explosion, get out of the building/train as quickly and calmly as possible. If exits are blocked, get out through emergency exits or get under a sturdy table or desk.
- If there is a fire, stay low to the floor and exit the building as quickly as possible. Cover nose and mouth with wet cloth.
- When approaching a closed door, use the palm of your hand and fore arm to feel the lower, middle and upper parts of the door. If it is not hot brace your self against the door and open it slowly. If it is hot, do not open the door and seek an alternate escape route.
- Heavy smoke and poisonous gases collect first along the ceiling, stay below the smoke at all times.

#### **After a terrorist attack-**

If you are trapped in debris-

- Use a flash light.
- Stay in your area so that you don't kick up dust. Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so that rescuer can hear where you are. Use a whistle if available. Shout only as a last resort. Shouting can cause a person to inhale dangerous amount of dust and smoke.
- Assist victims, However, you should not attempt to rescue people who are trapped in side a collapsed building. Wait for emergency personnel to arrive.
- Where a chemical agent attack occurs, authorities would instruct citizens either to seek shelter where they are and seal the premises or to evacuate immediately. Explosion of chemical agent can be fatal.

#### **Duties of Departments :**

- After a terrorist attack at station/train , the DRM of affected Division should take the situation under control and immediately advice the RPF and other department to rush the spot immediately for relief and rescue work.
- The duties of RPF is vital in the terrorist attack. They should immediately inform state police and rush to the spot with full force to handle the situation.

#### **Duties of RPF department :**

- Evacuate the injured and un-conscious persons from the affected zone with the help of ODRAF, NDRF, GRP and Local Police etc. Permission has been accorded by Home

Ministry (vide their letter no-VI -24022/11/2002-PM-I, dtd. 24-12-2002, addressed to Home Secretary of all states, that State Govt. or Police clearance is not required for launching rescue operation for the purpose of saving human lives.

- If there is fire or collapse of building, State's fire service to be informed immediately. They should be careful to stop panic.
- Affected area is to be cordoned.
- Attack of terrorist may be at any place, even religious places are not left, but Railway disaster is mainly concerned with Railway property such as Railway stations, trains, colony, offices, workshops. So they should be prepared in all respect.
- They should protect the belongings of the passengers.

**Duties of medical department-**

- Terrorist attack may cause loss of life, serious/minor injury to people. On receipt of the information of a terrorist attack on any Railway establishment, the ARME in-charge should rush to the spot immediately with sufficient nurse and doctors.
- They should have sufficient number of stretchers.
- Ambulance with life saving medicines, dressing materials, Tetanus toxoid and Intravenous fluids.
- First aid to be given to injured and seriously injured to be shifted to the nearest hospital.

**Duties of Mechanical department:-**

- During terrorist attack train may be seriously damaged/de-railed, in such situation senior most Officer should rush the site immediately by fastest means.
- 140 T crane/ART/ARME may be ordered as per the requirement. Senior most officers should monitor the rescue operation at site.

**Duties of Operating Department:**

- Movement of Advance Pilot:- In case there is a threat to Railway assets such as track, bridge tampering, threat of sabotage by terrorist, Chief Operations Manager shall decide to run an advance pilot ahead of important mail/express or other trains as occasions demand.
- In this case, an advance pilot shall be an engine (preferably a Diesel engine) with composition as required as well as with necessary security arrangement to be run.
- The speed of advance pilot should not exceed 80 Kmph and 60 Kmph during day and night respectively and 10 Kmph during bad weather impairing visibility.
- The first train should follow the advance pilot after a time interval of 10 minutes.
- The speed of the following train shall not exceed 60 Kmph and 40 Kmph during day and night respectively.
- In case of any sabotage to the track or advance pilot, efforts may be made to protect the site.
- The Loco Pilots of the following train must be most vigilant, cautious and be prepared to stop his train short of any obstruction.

**Duties of Commercial Department:-**

- Commercial staff should guide the affected passengers regarding their safety.
- Adequate food and drink to be arranged for the distressed passengers.
- Alternative arrangement may be made for the safe return of the distressed passengers.
- Payment for compensation to be made to the kin of the dead.

**Duties of Personnel Department-**

- Welfare Inspectors of Personnel Department should keep the record of the dead/ injured for the payment of compensation.
- They should assist the Commercial Department for the payment.

**Duties of Engineering Department:-**

- Terrorist attack may damage the Railway track/ bridges. Sufficient number of rails and bridge girders may be stocked at suitable places.
- Boulder and sand may be stocked at places to meet the situation.

**Duties of S&T Department:-**

- The attack may damage the communication and signalling system.
- Satellite phones and VHF sets are to be kept ready in ART/ARME.

=\*=

## (CHAPTER- 23)

### CHEMICAL DISASTER

Handling large quantity of HAZCHEM (Hazardous Chemical) in installation, isolated storages and transportation, poses the grave risk of sudden release of copious quantities of toxicants on the environment. Indian Railway transport these HAZCHEM e.g Petroleum products (petrol, HSD, naphtha etc.), caustic soda, alcohol, compressed gases (LPG), chemical manures, acids, matches etc. These goods are carried either in piece meal system in SLR or wagon or in bulk load in full rake of tank wagons.

Indian Railway's Rule for carrying dangerous chemicals i.e. HAZCHEM by rail have been legislated in the Railway Red Tariff Rule 2000 as per which dangerous goods have been classified in the following 8 categories.

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

Improper or unsafe handling i.e. loading, unloading, leveling and transporting may cause chemical accident/disaster resulting in fire, explosion, toxic release poisoning the environment and combination of the above.

The Bhopal gas disaster in December 1984 brought in to sharp focus the unprecedented potential of HAZCHEM like Methyl isocyanides in terms of loss of life, health, injury and long effect on population.

Petroleum and other inflammable liquids considered dangerous as per Railway Act 1989 (24 of 1989) and have been classified in three classes i.e. class "A", class "B" & class "C".

- Class "A" – Petroleum & other inflammable liquids , the vapour of which having flash point below 230 C .
- Class "B"- Petroleum & other inflammable liquids, the vapour of which having flash point above 230 C but below 650 C.
- Class "C"- Petroleum & other inflammable liquids, the vapour of which having flash point 650 C and above.

A number of factors including human error could spark of chemical accident with the potential to become chemical disaster. These are:-

- i) Process and Safety system failure.
- ii) Technical error:- Design defect, Fatigue, metal failure, corrosion etc.
- iii) Human error:- Neglecting safety instructions while handling the HAZCHEM, deviation from specified process etc.
- iv) Lack of information/knowledge:- Absence of emergency warning procedure, non disclosure of line of treatment etc.
- v) Transportation:- Transportation in unsafe manner i.e. in leaky container/tank wagons, loose shunting during attachment/ detachment of wagons, rough driving while transporting by rail.
- vi) Organizational error:- Poor emergency planning and coordination with public, non compliance of mock drill/exercise.
- vii) Terrorist attack/sabotage:- Vulnerable chemical disaster is further compounded by likely terrorist and warfare activities which includes sabotage and attack on HAZCHEM installations/ storage and transportation vehicle. These can occur at any time and at any place.
- viii) Improper storage. Improper storing of HAZCHEM.
- ix) Packing : Packing and leveling in unsafe manner.

In view of recent styrene gas leakage in VSKP div., the following Responsive Protocols, Resource Activation and Mobilization and Standard Operating Protocols of different departments in ECoR have been incorporated.

#### **Preparedness for Chemical Disaster Measures**

- 1) In case of chemical disaster, organisation/agencies like the DAE(Dept.of Atomic Energy) and centre for time. Explosive environment safety MOE&F, MHI & PE, professional institute's private voluntary organisations NGO may be contacted.
- 2) Railway Hospital, including various Hospitals under direct supervision of MH & FW should reports for medical emergencies for prompt medical response with requisite capacity building in emergency medical services.
- 3) Crisis control room for rapid exchange of information and coordination of activities during emergency to be set up.
- 4) Fire service, Civil defence, NDRF, SDRF & state authorities' assistance immediately be sought. Important Phone numbers are as follows:

State	Unit	Telephone number	Mobile number
Orissa & Chattishgarha	NDRF (Orissa)	0671-2879711 (Control Room) 0671-2879710 (Office)	9437581614
	ODRF	0671-2303263 (office) 0671-2339555 (Control Room)	
Andhra Pradesh& Telangana	NDRF(AP)	0863-2293050	8333068559
	SDRF	0864-5237347 (Guntur)	9440906404(Control) 9440627425(Office)
Chattisgarha	Fire & Emergency control Room	0771- 2512331	
Delhi	NDRF	011-23438091 (control & fax) 011-23438091, 23438136(Off)	9711077372
	DG/NDRF	01123438020,23438119	

- 5) The train services immediately requested to control, cancel within the vicinity for time being till the hazards brought under control.
- 6) Evacuation process of all human beings including animals with the help of NGO/State govt. immediately be resorted to.
- 7) Effective medical emergency services in comprehensive manner are to be initialised immediately.

#### **Standard Operating Protocol(SOPs)**

- 1) Installation of Public address (PA) system.
- 2) Setting up of Aero metres with continuous recording system & back up installation of wind box at vulnerable location.
- 3) Provision of adequate quantity of foam and any other suppressant for control of vaporisation of spill or leak.
- 4) Keeping ready sufficient fire extinguishers
- 5) Availability of well equipped emergency medical rooms with requisite no of Ambulance vans.
- 6) Preparation & inclusion of resources directory with complete details. Source availability person/officers contact phone no, address.
- 7) Facility of good broadcasting, Law & Order, evacuation, transport, rescues relief facilities.
- 8) Financial support from competent authority to meet the emergency procurements.
- 9) Creation of decontamination facilities.
- 10) Arrangement of adequate stock of PPE including respirators

#### **Precautions for Prevention of Chemical Disasters**

As lessons learnt from the recent styrene gas leakage of LG Polymers situated near about 1 km from SCMN station establishment, it is indeed necessary to have pre-precautionary planning at nearby railway premises to save any unwarranted situations.

1. There should be joint Audit by representatives of concerned state authorities , Industry and Railway in periodical manner.
2. Oximeter to be made available to detect oxygen levels
3. Alarm system to be provided in company as well as near by locations to warn the public about any adverse situation.
4. The evacuation plan to be made ready in advance
5. Provision of First aid kit for the railway personnel to save them this kind of situations to be made.

#### **Rescue Relief and Restoration:-**

6. Railways expertise in dealing with the miss-happenings like spillage, explosion, catching fire, release of toxic etc. of the dangerous chemicals is very limited. Therefore help from agencies and organizations such as NDRF, ODRAF, IOC, BPCL who have expert in dealing with the hazardous goods is asked for relief and rescue operation during a chemical disaster. The agencies and their contact numbers are given in the Annexure. If any untoward incident related to dangerous chemicals happen in the Railway premises, without delay those agencies or organization can be called for relief and rescue operation.
7. The staff of ARMVs, ARTs and a few of the staff maintaining rolling stock which is used for transportation of hazardous chemicals may be trained and equipped with the equipment used for dealing with such material in eventualities.

### **MEDICAL DEPARTMENT**

#### **Chemical Disasters or Accidents**

Chemical accident means an accident involving sudden or unintended occurrence while handling any hazardous chemicals resulting in continuous, intermittent or repeated exposure to death or injury to any person or damage to any property but does not include an accident by reason only of war or radio-activity.

Major chemical accident means – an occurrence including any particular major emission, fire or explosion involving one or more hazardous chemicals and resulting from uncontrolled developments in the course of industrial activity or transportation or due to natural events leading to serious effects both immediate or delayed, inside or outside the installation likely to cause substantial loss of life and property including adverse effects on the environment.

#### **Sources of the above disasters and accidents**

The above accidents as defined may happen to any one of the following “industrial activity”

-carried out in an industrial installation involving or likely to involve one or more hazardous chemicals

-on-site storage or on-site transport which is associated with that operation of process as the case may be

-isolated storage

-pipelines.

#### **Types of major chemicals/industrial hazards**

In addition to loss of life, the major consequences of chemical disasters include impact on livestock, flora/fauna, the environment (air, soil, and water) and loss to industry.

#### **Do's and Don'ts**

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

- Do not panic, evacuate calmly and quickly perpendicular to wind direction through the designated escape route.
- Keep a wet handkerchief or piece of cloth / sari on face during evacuation.
- Keep the sick, elderly, weak, handicapped and other people who are unable to evacuate inside house and close all the doors and windows tightly.
- Do not consume the uncovered food/water etc open to the air, drink only from bottle.



- Change into fresh clothing after reaching safe place/shelter and wash hands properly.
- Inform Fire & Emergency Services, Police and Medical services from safe location by calling 101, 100 and 108 respectively.
- Provide correct and accurate information to government official.
- Inform others on occurrence of event at public gathering places (like school, shopping centre, theatre etc.)
- Don't pay attention to the rumours and don't spread rumours.

### **General Precautions During Normal Time**

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

### **OPERATING DEPARTMENT**

#### ***“Post Disaster action to be taken”***

- 1) Chemical plant/Factories are potential threat to leakage of poisonous gas which is hazardous to living beings.
- 2) Stations/Railway track situated in the vicinity of Chemical Plant/factory need to be identified and notified for knowledge of all concerned.
- 3) Railway staff/ officers working at these stations/sections should be sensitized about the possible occurrence of any eventualities due to leakage of poisonous gas from these Plants/factories.
- 4) Standard Operating Procedure to be prepared and to be displayed at these stations to meet any eventualities.
- 5) Personal Protection Equipment may be provided to railway officials working at these stations to meet any eventualities.
- 6) In the event of leakage and spreading of chemicals/gas in the location train movement over these locations should be stopped immediately.
- 7) Arrangement should be made to evacuate railway officials/family members from the affected areas.
- 8) Scheduled Stoppages of trains at these stations should be cancelled for the time being if such trains already left the rear station. These trains to be allowed to go through.
- 9) Running staff/Ticket checking staff working in the trains plying over the vulnerable locations should be provided with Personal Protective Equipment. These may be kept in Train SLR/Guard Brake Van cup board with OTL.
- 10) Guards, Loco Pilots and ticket checking staff should be counselled to advise passengers to close doors and windows of the trains in the event of leakage of poisonous gas.

## MECHANICAL DEPARTMENT

**Responsive Role:** Supportive Role

**Resource Activation & Mobilization:**

Mock drills will be conducted to all ARTs/ARMES/SPARMVs to tackle situations like chemical disasters in consultation with NDRF& ODRF.

**Standard Operating Protocols (SOPs):** SOPs will be issued to tackle the such type of chemical disasters (like gas leakages, HAZCHEM leakages, etc., ) by the BD staff of ARTs /ARMES.

## SECURITY DEPARTMENT

In reference to the above, the following action plans are suggested to tackle the Chemical Disaster hazards;

- The Zonal & Divisional disaster management team in the Railway should be given special training regarding possible Chemical hazards in their operational environment.
- The personnel protection equipments (PPE) should be procured and supplied to the disaster management team to tackle such disasters.
- Quarterly mock drill should be arranged at Zonal & Divisional level for those disaster Management team.
- The RPF disaster management team should assist Railway authority and State authority for evacuation process during such Chemical
- Frequent announcement should be made through PA system in the affected areas to alleviate the panic situation.

## PUBLIC RELATIONS DEPARTEMENT:

Media Management to be done and fake news against railways to be controlled and ensure only correct and facts news to be published in the disasters or eventualities.

## ENGINEERING DEPARTMENT

Regarding the control of chemical disaster, the role of Civil Engg Deptt is limited to educating the staff in the field for taking timely measures in case of any mass evacuation is required to provide medical aid in time. Each works centres of Civil Engineering Department, Divisional Engineers and Assistant Officers and Inspectors at field levels should be vigilant in collecting and reporting any abnormalities in the adjoining chemical units/installations regarding their poor safety measures and report the same to the district authorities. Time to time all the Civil Engineering persons engaged in the field should be imparted with the training on DOs and DON'Ts of the chemical disaster management so as to increase the level of preparedness and action taken in emergency in case of any outbreak of any such chemical disaster. The field officials should promptly render required assistance to the affected persons in consultation with the Divisional/Zonal Medical authorities.

Besides the above, periodical joint inspections at the level of Assistant scale officers and Divisional officers with the concerned state counterpart officials should be carried out regarding adherence of safety norms for all hazardous prone chemical installations in the vicinity of railway track/major railway setups. The deficiencies/shortfalls noticed during the joint inspections be send to the district authorities for enforcing necessary compliance by the plant owners in time. Records of such inspections and action taken to be maintained in the divisional office of Engg. Dept

=\*=

## **(CHAPTER – 24 )**

### **CHEMICAL TERRORISM DISASTERS(CTD)**

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.

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 environment. Due to the relatively easy availability of hazardous chemicals 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 aerosolised material to contamination of food and water.

#### **NDMA's Guidelines :-**

The possibility of a chemical terrorism attack can be minimised by spreading general awareness and building the capacity of the community, institutions, governmental and non-governmental organisations.

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

- i) Security and surveillance measures for installations manufacturing/ using/ storing chemical materials.
- 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, detection, de-contamination, de-corporation, capacity building and infrastructure development.
  - (d) Community-centric mechanism for the management of chemical terrorism disasters.

#### **24. 2 CTD Preparedness Plan :-**

Implementation of the Guidelines at the national level has begun with the preparation of a detailed action plan (involving programmes and activities) by the nodal ministry (MHA) to 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., have also prepared 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, Railway should also cater for developing additional capacities besides meeting our own requirements in our preparedness plan.

#### **Preparedness for Emergency Response :-**

Preparedness for an emergency response at the incident site requires protection, detection, and decontamination. SOPs are required for all the emergency responders working under the overall supervision of the incident commander. SOPs will be included for field decontamination. A well-organized 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.

**Guidelines on Chemical Disasters :-**

Railway's guidelines/instructions relevant to the zonal railways have been issued for taking necessary action and incorporating suitable provisions in their respective DM Plans. These guidelines will add to the existing safeguards listed in the Red Tariff on handling, storage and transportation of hazardous material.

**Training for the Responders (Preparedness):-**

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

==\*=

## **(CHAPTER -25)**

### **NUCLEAR AND RADIOLOGICAL EMERGENCY DISASTER**

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 radiation limits can lead to a nuclear/ radiological emergency. In the incident of Fukushima, plant released a large-scale of radiation in the environment due to failure of cooling system of nuclear facility. The nuclear fuel cycle/ nuclear reactors using radioactive resources burst due to uncontrolled nuclear reaction, in 11th March 2011 earthquake and tsunami resulting triggering of fires, explosions and radiation leaks in the world's worst nuclear disaster since Chernobyl in 1986. The March disaster is believed to have killed more than 24,500 people.

After due consideration of the nature and consequences of all possible scenarios, these radiological emergencies have been broadly classified into the following four categories:

- i. 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.
- ii. An accident during the transportation of radioactive material.
- iii. The malevolent use of radioactive material as a Radiological Dispersal Device by terrorists for dispersing radioactive material in the environment.
- iv. 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 property.

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 of using Radiological Dispersal Devices are the two scenarios that are of major concern. The impact of a nuclear disaster (scenario at (iv)) will be well beyond the coping capability of the local authorities and it calls for handling at the national level.

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 design of these facilities ensures that even in the event of a physical attack, the structural barriers prevent the release of any radioactivity outside the plant area itself and hence the public shall not 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 of radioactivity in the environment.

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.

There are well- established international treaties for the control of fissile materials, because of which the possibility of fissile material falling into the hands of terrorists is extremely low. However, if these treaties are violated through state-sponsored activities, access to fissile materials by terrorist group cannot be ruled out.

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 rigidly during actual transportation.

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

In this chapter a concise concept has been provided regarding, how a nuclear and radiological disaster could take place and how to tackle the disaster.

=\* =

## **(CHAPTER -26)**

### **BIOLOGICAL DISASTERS**

#### **Information**

**Biological disasters** are causative of process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Examples of biological disasters include outbreaks of epidemic diseases, plant or animal contagion, insect or other animal plagues and infestation. Biological disasters may be in the form of:-

**Epidemic** affecting a disproportionately large number of individuals within a population, community, or region at the same time, examples being Cholera, Plague, Japanese Encephalitis (JE)/Acute Encephalitis Syndrome (AES); or,

**Pandemic** is an epidemic that spreads across a large region, that is, a continent, or even worldwide of existing, emerging or reemerging diseases and pestilences, example being Influenza H1N1 (Swine Flu) and COVID-19.

#### **Causes of Biological Disasters :-**

Biological disasters might be caused by epidemics, accidental release of virulent microorganism(s) or Bioterrorism (BT) with the use of biological agents such as anthrax, smallpox, etc. The existence of infectious diseases have been known among human communities and civilisations since the dawn of history. The classical literature of nearly all civilisations record the ability of major infections to decimate populations, thwart military campaigns and unsettle nations. Social upheavals caused by epidemics have contributed in shaping history over the ages.

In recent times travelling has become easier. More and more people are travelling all over the world which exposes the whole world to epidemics. As our society is in a state of flux, novel pathogens emerge to pose challenges not only at the point of primary contact but also in far remote locations. Now a days COVID-19 is the best example.

#### **WHAT IS COVID-19**

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people who fall sick with COVID-19 will experience mild to moderate symptoms and recover without special treatment.

#### **HOW IT SPREADS**

The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces.

You can be infected by breathing in the virus if you are within close proximity of someone who has COVID-19, or by touching a contaminated surface and then your eyes, nose or mouth.

#### **MEDICAL DISASTERS**

In view of recent outbreak of COVID-19 pandemic, the GOI has declared it as Medical Disasters. The following Responsive Protocols, Resource Activation and Mobilization and Standard Operating Protocols of different departments in ECoR has been incorporated under Medical Disasters.

#### **MEDICAL DEPARTMENT**

In view of COVID-19 pandemic, the GOI has declared it as Medical Disasters. On the experience gained the following additions are suggested.

In view of COVID-19 pandemic, a group of Doctors and paramedics like Anaesthetist, Chest Physician, General Physician, Nursing staff should be trained in providing Ventilator services to serious patients. Training can be arranged in Tie-up Private Hospitals & Medical

Colleges. Doctors & paramedics working in ICU should be provided training for dealing serious cases. Doctors & paramedics should be periodically sensitized to face such emergent situations.

In view of COVID-19 pandemic, Ministry of Health & Family Welfare/Govt. of India has issued various guidelines to contain the spread of disease as follows:-

- Total stoppage of international & domestic travels
- Early identification of cases from clinical symptoms & by testing
- Identifying the suspects by contact tracing, travel history and by conducting more number of tests of the suspects
- Total lock-down & shut-down of the whole area
- Social distancing
- Confining to homes mostly
- Managing office, if required to open, with minimum staffs with screening of staff at entry by Thermal scanner.
- Use of mask
- Frequent hand washing
- Use of sanitizer
- Quarantine & Isolation of suspects
- Establishing dedicated COVID Hospitals with adequate infrastructure and trained personnel for treatment of COVID patients
- Intensive sanitation and disinfection of all surfaces generally exposed to public contact like offices, coaches, colony area, etc by spraying and moping with 1% Hypochlorite solution

In view of COVID-19 pandemic, besides coaches, places may be identified for Quarantine and Isolation of suspects/contacts of infected persons. Infrastructure in Railway Hospitals & Health Units may be improved like availability of Ventilators, Bi-PAP machines, Oxygen cylinders, Central Oxygen Gas Pipeline system, Oxygen Concentrator, Defibrillator, Multipara monitor etc. ICU beds with all required infrastructures should be available in all Railway Hospitals.

COVID-19 pandemic causing widespread deaths throughout the World reflected the lack of adequate preparedness for the Biological Disaster.

#### **26.5.4- Environmental management:**

Safe water supply, proper maintenance of water pipe lines. This will prevent water borne diseases.

##### **- Vector control:-**

Environmental Engineering

- Water management: not permitting water stagnation.
- Anti larval measures for water bodies
- Regular spraying of insecticides.
- Control of rodent population (Pest control)

**NOTE:- Guidelines on preventive measures to contain spread of COVID-19 in workplace has been briefed in Annexure- 24.**

#### **OPERATING DEPARTMENT:**

##### ***“Post Disaster Action to be taken”:***

1. In the event of outbreak of epidemic/pandemic, time to time guidelines issued from centre/state/local administration should be followed strictly.
2. Necessary guidelines/instructions need to be issued depending upon the nature of the epidemic.



3. Railway officials working in the field should be supplied with necessary protective equipment to protect themselves from the epidemic/pandemic.
4. Regular cleanliness of stations/railway colonies/coaches/running rooms should be done to prevent spreading of the epidemic.
5. Equipment/Machineries handled by multiple staff should be sanitised regularly to prevent spreading of virus/bacteria/disease.
6. Face Mask/Gloves may be made personal equipment of running staff, ticket checking staff and staff dealing with general public.
7. To prevent the spreading of contagious diseases gathering should be avoided. As far as possible physical & social distance to be maintained to prevent the spreading.
8. However, for smooth day to day working of railways, focus to be made on online working wherever feasible.
9. Railways should develop system to facilitate online working in the event of COVID-19 like situations.
10. Identified Staff & Officers shall be trained and encouraged to work online to meet any eventualities in case situation restricts to stay at home.
11. Necessary facilities for online working may be provided to the Staff/ Officers in this regard.

#### **MECHANICAL DEPARTMENT**

***Role:*** Supportive role

***Resource activation & mobilization:***

- Follow the instructions issued by MoH&FW, State Govt., and Local authorities from time to time.
- Support to the medical department in supplying PPEs to the staff & victims in case epidemic diseases to protect themselves.
- Support to medical department for manufacturing of isolation beds, coach care centers, for quarantine/isolation of diseased persons, equipments like IV stands, oxygen cylinder stands, etc., if required.
- **Standard Operating Protocols (SOPs):**

SOPs should issue to the work places where multiple staff involve in maintenance and operation of carriages & wagons like coaching depots, platform TXRs, freight yards, and sick lines. This contains-

- Restriction of working of staff at higher risk (age more than 55 years) and employees who have advised by medical authorities to take extra precautions.
- Restriction of parent employees having children less than 5 years
- Usage of PPEs (masks, etc) and usage of sanitizers preferably no hand operation mechanism at work places.
- Restriction of employees who are advised to home quarantine /hot and contaminated zones, if notified by the Govt. authorities.
- Intimation to higher authorities about any diseases family persons due to epidemic
- Closer of non essential services like training schools, etc
- Working of important /essential activities at coaching depots , sick lines, platforms, examination of rakes at pit lines, washing and cleaning of rakes, Under gear and upper gear, maintenance of bio-toilets, air brake testing, up- keepment of materials, etc.
- Restricted working hours may be introduced with only 02 shifts at coaching depots, yards and 3 shifts at stations/platforms with reduced rosters.

- Booking of some maintenance staff to upkeep the stabled rakes/trains for watering, cleaning, disinfection, etc.
- Procedure of working of supervisors and staff to be issued on wearing of masks, to maintain physical and social distancing to control communal spread of epidemic diseases.
- Availability of staff who advised to work from home to be available on mobile/telephone in case of emergent requirement
- Sanitization and house keeping with hygiene at work places, depots/yards.
- Mandatory of thermal screening at entrance of the work place.
- Provision of hand soaps/sanitizers at entry and common working area under EnHM wing.
- Avoid large gatherings or meeting having more than 10 staff in work places and always ensure physical and social distancing.
- Strict ban ghutkaa, pan, tobacco and spitting at work places to control the spread of epidemic diseases.
- Ban on non-essential visitors to work places.

***SOPs on disinfection to rakes at originating, en-route and destination:*** This includes-

- Disinfection of rakes/trains at originating stations, en-route and at destination stations.
- Ensure usage of PPEs(masks, etc) by the train escorting staff viz., AC attendants, OBHS staff, etc.
- Detailed guide lines to the train escorting staff viz., AC attendants, OBHS staff, bed roll staff, etc. during epidemic/pandemic diseases period.

#### **SECURITY DEPARTMENT**

- In reference to the above, the following action plans are suggested to tackle the Biological hazards;.
- The personnel protection equipments (PPE) should be procured and supplied to the disaster management team to tackle such disasters.
- Quarterly mock drill should be arranged at Zonal & Divisional level for those disaster Management team.
- The RPF disaster management team should assist Railway authority and State authority for evacuation process during such Biological disaster.
- Frequent announcement should be made through PA system in the affected areas to alleviate the panic situation.
- Thermal screening
- Social distancing
- Wearing of masks
- Use of hand sanitizers

#### **FINANCE DEPARTMENT**

**A. *Responsive Role:*** Supportive

**B. *Resource Activation & Mobilization:***

- Sanitization of office premises.
- Finance / Books Section for prompt disposal of proposal / payment.

**C. *Standard Operating Protocols (SOPs):***

- Advising Staff to maintain social distancing and using of masks.
- Advising Staff to sanitize their hands with sanitizers / washing hands with soap.

- c) Encouraging Staff to promote paperless working by increasingly relying upon e-mail and other electronic means for communication in addition to the existing office software already in working.
- d) Advising Staff to report to the State Medical Authorities regarding visit to outside Country / State / District guests of family members during the lock down period.

Any proposal for facilitating prevention of COVID-19 having financial implication will be attended promptly by Finance Department. Any payments for facilitating disaster relief work will be handled on coordination with executive department and banks.

#### **ENGINEERING DEPARTMENT**

- (i) At all the point of time the drinking water supply should be in compliance of the laid down standard confirming to various codal provisions mentioned in the Indian Railway Works Manual and the quality of drinking water should comply to the physical and chemical standards as per IS 10500/1991 with upto date correction slips.
- (ii) All the water supply installation systems particularly open wells to be disinfected from time to time and proper water treatment to be carried out such that the water is free from pathogenic bacteria, free from any contamination and the treated water should be free from mico-organisms causing diseases before it entered into the distribution system.
- (iii) The drinking water should be disinfected with sufficient chlorinators and the residual chlorine available at the farthest end shall be 0.2 mg per litre. However, during monsoon months or incase of specific complaint are there, super chlorine more than 2 ppm of chlorine may be resorted to effectively to get rid of bacteria.
- (iv) For ensuring disinfection of drinking water, proper mechanism must be in place right from Divisional Engineers to Sectional Engineers to ensure safe, portable, disinfected water free from micro organisms causing diseases.
- (v) The other areas to ensure the effective public health system is availability of well functional sanitation system in the Railway which are to be checked for their efficacy by the Railway Sanitation Committee. This Railway Sanitation Committee will carry out inspections of conservancy system of sanitary condition of station, colony and other building premises as well as outdoor conservancy also and guide the concerned department for taking timely measures. Other sanitation protection measures must be carried out in compliance of various provision of Indian Railway Works Manual and other instructions issued from time to time by the higher authorities.

#### **PERSONAL DEPARTMENT**

1. The hospitals capable of handling such patients of Biological & Chemical Disaster Management should be identified/developed.
2. Arrangement of ambulances/Transport services for ferrying of affected persons from colonies to hospitals, hospitals to specialized hospitals.
3. Arrangements to be made for telemedicine/video medicine services during the Biological Disaster.
4. Arrangements for isolation/quarantine facilities with the arrangement of fooding and medical care to be identified.
5. Development of mechanism to augment to such capacities in response to mass casualty following biological or chemical disaster.
6. Identification and stockpiling of medicines, fooding and consumables for detection and medical management of affected cases.
7. Mechanism for educating employees and their families on do & don'ts to avoid effect of biological disaster.
8. Post disaster availability of support of physiatrist/psychologist/counselor to be arranged.

=\* =

## **(CHAPTER – 27)**

### **DISASTER IN TUNNELS/ DEEP CUTTINGS OR IN WATER BODY**

#### **Expertise To handle Rail Disasters in Tunnels etc.:**

The Railways have no expertise or infrastructure to handle a train disaster if it occurs in a tunnel or in a deep cutting not approachable by land. No machinery, or earth moving equipment is available on the Indian Railways which could be mobilized for this job.

#### **Ventilation arrangements in Tunnels :**

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

In case a train stalls in long tunnel due to derailment/fire or any unusual condition automatically alarm will be sounded in the control room to alert the Ventilation Operator controller or if Guard/Driver of a train or any other person gives such call on 'Emergency' Telephone the ventilation operator should control the ventilation in tunnel as per the procedure given.

#### **Handling Rail Disasters in a Lake, River, Sea etc.:**

The Railways neither has the equipment (cranes operated from barges) nor trained manpower to extricate bodies from a train or coaches fallen down from a bridge on to a water body, viz lake, river or sea etc.

#### **Assistance of NDRF and State Governments :**

The Zonal Railway has to contact the respective NDRF Battalion for assistance; or if trained manpower along with equipment is available then even the resources of the State Government can be made use of.

==\*=

## **(CHAPTER – 28)**

### **CRISIS MANAGEMENT**

#### **CRISIS SPECIFIC ACTIONS :**

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

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

#### **National Crisis Management Committee (NCMC):**

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

- |       |  |   |
|-------|--|---|
| (i)   | All India Railway Strike                               | Member Staff<br>Member Mechanical<br>(Alternate).   |
| (ii)  | Terrorism/Security related Crisis                      | Member Staff<br>Member Traffic<br>(Alternate)       |
| (iii) | Natural Factor(s) related Crisis                       | Member Engineering<br>Member Traffic<br>(Alternate) |
| (iv)  | Major Train Accidents                                  | Member Traffic<br>Member Mechanical<br>(Alternate)  |
| (v)   | Crisis where railways have to help<br>other ministries | Member Traffic<br>Member Staff(Alternate)           |

Names, telephone numbers and addresses of the Members/ alternate Members, who will represent the Ministry of Railways in NCMC are contained in Annexures:-

#### **Crisis Management Group (CMG):-**

The CMG is the Executive Authority responsible for dealing with the crises and shall work under the broad guidelines and directives issued by NCMC. It shall be in constant touch with the NCMC on the one hand and the concerned Zonal Management Group on the other. In addition to the concerned officers of the Railway Ministry, nodal officers from the concerned Ministries should be contacted (Annexure-12) if help is needed from the other ministries for effectively dealing with the various crisis situation; e.g. Ministry of Defence should be contacted for air support and/or expert help like divers, boats etc. However, Control Room of MHA should be kept informed of the developing situation for assistance as warranted. In case of difficulty in getting to the nodal officer of the concerned ministry, Control Room of MHA can be contacted.

The overall composition of the Crisis Management Group including the names, telephone numbers and address of its members for dealing with various crisis situations are given in Annexures as detailed below:-

Convener/  
Overall composition of  
The Central Management Group

- (i) All India Railway Strike : Additional Member(Staff)/
- (ii) Terrorism/Security related Crisis : Director General (RPF)/
- (iii) Natural Factor(s) related Crisis : Additional Member (CE)/
- (iv) Major Train Accidents : Additional Member Traffic Advisory (Safety)
- (v) Crisis where railways have to help other ministries : Additional Member Traffic/

The list/ names of the Members of the CMG will be updated and circulated by the Safety Directorate of Railway Board every year.

Members of the CMG will first assemble in Emergency Control Room of Railway Board in Room No. 476 K (Telephone Nos. Railway 43399, 43599; P&T 23382638, which is located on the 4th floor of Railway Bhawan, at Raisina Road, New Delhi – 110 001. Depending upon the type, gravity and duration of the crisis, the convener of the CMG will decide to operate either from the control room of the respective directorate or from the Railway Board Committee Room on the 2nd floor of Rail Bhawan.

### **Zonal Management Group (ZMG)**

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

- (i) Additional General Manager : Convenor
- (ii) Principal Chief Engineer/  
Chief Engineer (Co-ordination) : Member/Alternate Convenor
- (iii) Chief Security Commissioner : Member
- (iv) Chief Personnel Officer : Member
- (v) Chief Operation Manager : Member
- (vi) Chief Mechanical Engineer : Member
- (vii) Chief Electrical Engineer : Member
- (viii) Chief Signal and Telecommunication  
Engineer : Member
- (ix) Chief Safety Officer : Member
- (x) Chief Public Relations Officer : Member

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

### **INSTRUCTIONS FOR DEALING WITH CRISIS SITUATIONS FLOW OF INFORMATION.**

On receipt of information of the crisis from the field unit, it should be immediately passed on to the concerned Divisional Railway Control Room, which in turn will immediately pass it on to the Emergency Control Room of the Zonal Railways Headquarters, and the Emergency Control Room of the Railway Board at Rail Bhawan.

Liaison Officer nominated at the Zonal Railway Headquarters will also immediately pass on the information to Disaster Management Control Room in Ministry of Home Affairs, North Block, New Delhi, which is operational round the clock.

The Divisional Railway Control Room will also simultaneously communicate the information regarding the crisis to the following:

- (i) All Branch Officers of the Division including Security for security related crisis.
- (ii) District Magistrate concerned.
- (iii) Distt. Supdt. of Police concerned;
- (iv) Chief Medical Supdt. (Railways), and to Distt. Civil Surgeon concerned.
- (v) Chief Fire Officer of the District concerned.

The Divisional control room will mobilize railway and non-railway resources to meet with the crisis situation locally as per the provisions of their accident manual, strike scheme and disaster management plan.

The Officer Incharge of the Emergency Control Room of the Zonal Railways Headquarters would immediately pass on this information to all members of the Z.M.G. who will assemble in the Emergency Control Room at their respective Railway. The convenor of the Z.M.G. besides passing on immediately the information regarding the crisis and the developments threat to Convenor of C.M.G either directly; or through the Central Contrl Office, will also pass on the same to the following and other concerned authorities.

- (i) Chief Secretary,
- (ii) Director General of Police

When a situation is of an extremely urgent nature, which does not permit adequate time to consult the CMG, the ZMG shall handle the situation in the best possible manner and as per the extant instructions laid down for dealing with the crisis situation. The ZMG will make all out efforts to mobilise needed resources by all possible means to manage the crisis as per the provisions of their accident manual, strike scheme and disaster management plan.

The officer Incharge of the Safety Control Room at Room No. 476-K in Rail Bhawan (P&T phone No. 23382638 and Railway Phone No. 43399, 43599) which is manned round the clock would immediately inform all the Members of CMG by the quickest possible means and give brief information about the nature of the crisis. The Convenor or his representative will convey information regarding the crisis situation to the Members of N.C.M.C.

The CMG will interact with NDM control room and officials of the other ministries to arrange for the support needed from them .

As soon as the report about the crisis is received, the convener of the CMG will decide to operate either from the Control room of the respective directorate or from the Railway Board Committee Room on the 2nd Floor of Rail Bhawn depending upon the type, gravity and duration of the crisis. The respective Control Room will be named as Emergency Control Room and its working will be upgraded in view of the crisis and will be manned round the clock under the charges of an Emergency Officer, not below the rank of Joint Director in each shift.

The main functions of such Emergency Control Room will be as under:-

- (a) To get situation reports on a continuous basis from the site;
- (b) To keep all the concerned Officers of the various disciplines in the Railway Board as also in the concerned Ministries informed of the developments.
- (c) To convey instructions and guidelines to the Officers In-charge of Relief Operations at site.
- (d) In case where Railways have to help and assist other Ministries in crisis situation, the emergency control office will maintain continuous liaison with the Nodal Ministry dealing with

the crisis situation, and arrange assistance from the Railway as per the requirements and in coordination with the Nodal Ministry.

All the Control Rooms at Rail Bhawan will have the names and telephone nos. of all the Members of the CMG to deal with the various crisis situation. On being informed about the development of the crisis situation by the Official Incharge of Emergency Control Room, the Joint Secretary, Railway Board, will make available adequate numbers of transport and Typists/ Stenographers for working in shifts, round the clock with the Emergency Control Room for efficient discharge of its functions.

In order to avoid any panic and also with a view to conveying correct information to members of public, the Z.M.G. and C.M.G. will nominate senior officers of the Public Relations Deptt. at all three places, i.e the crisis area, the Z.M.G Hd. Qrs and CMG Hd. Qrs to coordinate the activities of Media and for issuing information bulletins at proper intervals.

#### **Role of Other Ministries/Departments**

- a. Railway is the nodal agency to deal with this crisis situation. Other ministries/departments will render help and assistance to the Railways to deal with this crisis.
- b. Strike Scheme of all the concerned zonal railways is circulated to the District Magistrate and Superintendents of Police of the concerned districts and the Chief Secretaries and Directors General of Police of the concerned states. They will ensure that the provisions contained in the Strike Scheme booklet are read and understood by them so that the same can be implemented at the time of actual happening. Local SOPs will be drawn by the police and civil administration for facilitating ground operations at the time of crisis.
- c. Railway and Civil intelligence agencies will exchange and share information indicative of any developments leading to the Railway strike. Local intelligence agencies will also communicate information about the confidential activities of the striking employees to the Railway Administration on continuous basis.
- d. Local Civil administration and the Police will actively associate in the deployment plan to be prepared by the Railway Protection Force to guard the critical operational installations like signaling rooms,
- e. ASMs cabins/offices, running rooms, etc., vulnerable locations like tunnels, bridges, etc. Manning and escorting of selected strategic trains, etc.
- f. On contacting by the Railway Administration in the event of the strike, local police and Civil Administration will extend assistance to maintain law and order to facilitate working of the railway. Local Police Agencies will also act as per the deployment plan to extend help in guarding the critical railway installations and for escorting of trains.
- g. Local civil administration will ensure and assist railway in mustering assistance from non-railway agencies like Public Works Departments, Irrigation departments, Private Agencies in having the specialized equipment available with them to facilitate smooth operations.
- h. Services of Para -Military services available in the affected region will also be extended, if needed through Ministry of Home Affairs.
- i. Territorial Army will be deployed as demanded by the Railways through Ministry of Defence.
- j. Local fire services will be on the alert for their movement at the short notice in the event of fire/ arson as reported by railways.



- k. Government owned hospitals, private hospitals and other rescue resources will be on alert to take care of any medical related contingency that may occur during this period.
- l. All other agencies of the local administration will be on alert to render help on short notice to ensure that railways run as smoothly as possible with all the resources pooled together.

### **Terrorism/Security related Crisis**

The composition of the CMG to deal with this crisis situation will be as per Annexure-7.

Crisis like explosions on the Railways, large scale sabotage involving blowing up of bridges and tracks require assistance of a more elaborate nature from outside. Ministries or other agencies which may have to be tackled at the National Level. Under such situations, Railways need to take the help of other Government and Non-Government Agencies for their expertise. Contact details of all such agencies should be included in the Disaster Management Plans of Zonal railways and divisions, which should be updated once every year in January. In addition to the hard copies, railways should also have the web-based electronic versions of Disaster Management Plans on their Railnet server for expeditious search of the key information at the time of Crisis.

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

In cases of large-scale incidents of sabotage or explosion on railways, requiring assistance from Ministry of Home Affairs, Cabinet Secretariat and the State Government, Director General, Railway Protection Force, will coordinate on behalf of the Railway as convener of CMG for this crisis.

### **28.6.0 Role of other Ministries/Departments**

- (i) Ministry of Home Affairs is the nodal agency to deal with this crisis situation. Railways at operational level will render help and assistance and will facilitate to deal with this crisis on the railway system.
- (ii) Intelligence agencies will keep informing the railway administration and the local police about the likely terrorist attacks/sabotage on the railway system. Local police will co-ordinate and liaison with railway authorities in warning of any imminent danger.
- (iii) Local Police responsible for the maintenance of law and order in the region will have SOPs in place in co-ordination with all the other agencies like Railway Protection Force, Govt. Railway Police, locally deployed staff of the railway to guard vulnerable railway installations like major railway stations, trains, vulnerable locations, etc. It will act according to this SOP on receipt of intimation of any terrorist/security related crisis. It will take command of the situation and order the railway authorities at the site of the incident to facilitate their operation. It will cordon off the affected area to facilitate the rescue relief and restoration work.
- (iv) Civil administration will alert government and private hospitals and rescue resources to reach the site to take care of the victims. Trauma centres, if any, in the region should be alerted to receive the victims for their expeditious treatment.

- (v) Local civil administration will organize surveillance of the terrorism prone area after the event to preclude another happening.
- (vi) MHA will activate National Security Guards and help from other security related agencies to reach the site of crisis and take over from the local personnel for large operations.
- (vii) MHA will also requisition national disaster response force, if so considered essential for the crisis and will direct the force to reach the place of crisis.
- (viii) Ministry of Health and Family Welfare is procuring a container based Mobile hospital. Once it is in position, it can be deployed for major disasters, if the situation so warrants.
- (ix) Ministry of Defence will mobilize defence personnel to take over the crisis situation as per the need.

#### **Natural Factors Related Crisis.**

The composition of the CMG to deal with this crisis situation will be as per Annexure-8.

On receipt of warning about any imminent cyclone, flood etc. that can affect the railway system, the concerned railway administration will take immediate steps to warn the field units well in advance to mitigate the effect of such an event. For this purpose every zonal railways will have provisions in their respective disaster management plan which should immediately be invoked to action.

ZMG in the Zonal Headquarter will assemble in the disaster management control room and will take appropriate measures to mobilize resources from all the agencies to manage the situation. It will assist, help and guide divisional railway managements in their endeavours and will organize to supplement their efforts under such crisis situation.

ZMG will also approach other ministries through NDM control room and also through the CMG in the Railway Board for any help needed at their level.

#### **Role of Other Ministries/Departments.**

- i. Meteorology department will communicate the natural factors like cyclone, heavy rains, earthquake related information to the local railway administration to have them warned of any imminent crisis situation.
- ii. SOP for transmission of the warning to the field units will be immediately activated to take appropriate preventive measures.
- iii. On serious disruption of traffic on the railways, local agencies like public works department, irrigation department, local defence and para-military units will assist railways as per the request from the railway administration.
- i. Local civil authorities and police will assist railways in ensuring security of passengers in the stranded trains and at the stations. They will also assist in reaching water and food to the stranded passengers with help of defence/para military personnel, if so needed.
- ii. Local Civil administration will assist railways in harnessing resources from non-govt. Agencies also e.g. divers, earthmoving equipment, etc.
- iii. Resources with all the agencies will be pooled and leveraged to help evacuation, if so needed.

- iv. Department of Space will provide flood inundation map/information to the concerned Railway Administration to facilitate their being warned of any imminent crisis situation.

#### **Major Train Accidents.**

- a. The Composition of the CMG to deal with this crisis situation will be as per Annexure-VIII.
- b. On receipt of information of a Train Accident involving/suspecting injuries or death of passengers, Accident Relief Medical Equipment Vans (ARMVs) and Accident Relief Trains (ARTs) which are stationed at strategic locations, are immediately turned out for the site of accident with Doctors, Paramedical Staff, rescue workers and Engineers.
- c. All Railway Men, since their recruitment, are made aware of sacredness and vital importance of dispatch and movement of ARMVs and ARTs within prescribed time.
- d. The Medical Team attends to the injured passengers and seriously wounded are transported to nearby hospitals.
- e. The cost of such treatment is borne by the Railways. Dead bodies are handed over to police for further action such as autopsy, for medico legal purposes.
- f. ZMG will also approach other ministries through NDM control room and also through the CMG in the Railway Board for any help needed at their level.

#### **Role of Other Ministries / Departments.**

With the enactment of the Disaster Management Act – 2005 which envisages participation by all stake holders based on their expertise, the golden hour i.e. first hour after the accident is to be generally managed by the few on board railway staff, railway staff working at nearby areas, unaffected train passengers, local police and fire brigade, local hospitals and doctors, other relief rescue workers in the nearby areas. Keeping the above in view, Zonal railways are coordinating with the non-railway, govt./ non-govt. resources available with various agencies so that the same can be requisitioned immediately to help the affected persons. This information has been made part of the Disaster Management Plans of the Zonal Railways.

#### **CONTINGENCY PLAN WHERE RAILWAYS HAVE TO HELP AND ASSIST OTHER MINISTRIES IN CRISIS SITUATION.**

Ministry of Railway will provide emergency support and assistance to other Ministries mostly in regard to rail transportation. For this purpose Ministry of Railways has issued an Emergency Support Function Plan (ESF) vide 2003/Safety (DM)/6/3 dated 25.10.04 nominating Quick Response Teams (QRTs) at the Ministry level and Zonal railway level as well. QRT at the level of Ministry of Railway is CMG for dealing with the crises situation to help other Ministries is given at Annexure-9.

The CMG will obtain directions from NCMC and organize the necessary relief operations through field level QRTs.

The concerned Ministry will make their own Contingency Plan bringing out the assistance required from the Railways, which will be mobilized.

==\*=

## **(CHAPTER -29)**

### **STRIKE MANAGEMENT**

**Strike:-** Strike is a stoppage to perform work by mass refusal of employee. Strikes are some times used to put pressure on government/employer to change policies. Occasionally, strikes destabilize the rule of a particular political party. Certain categories of person may be forbidden to strike such as health personnel, police, RPF & GRP, Firemen etc.

#### **Types of Strike.**

- i) General strike:- All employee participating in strike. It may be forbidden by a public order.
- ii) Hunger strike:- Voluntary refusal to eat by employee as form to protest and to full fill their demand.
- iii) Mass Sick: - Where laws prohibit certain employee from declaring a strike, they report sick enmass to fulfill their demand.
- iv) Pen down / Tool down strike:- Though employees are present on duty, they do not perform their duties in protest against some policy of the organization.

#### **ALL INDIA RAILWAY STRIKE**

- i. The composition of the Central Management Group to deal with the crisis situation is given at Annexure-6.
- ii. All the Zonal Railways have 'Strike Scheme' based on the vulnerabilities on their system. Strike Scheme is updated and reviewed by the zonal Railways from time to time. All the ZMGs will implement their respective 'Strike Scheme' at all levels and will keep CMG informed of the developments and assistance needed.
- iii. The broad guidelines and general instructions of the strike scheme is to attain the following objectives:-
  - (a) To provide an emergency organization to operate the Railway under such conditions as and when a large section of the Railways employees may go on strike which may also be accompanied by sabotage, intimidation of loyal staff or even civil unrest.
  - (b) To keep open in the event of a strike, Railway lines alongwith communication lines and to run the greatest possible number of passenger and goods services of an essential nature.
  - (c) To safeguard and, in general, to prevent damage to Railway property, especially vital installations.
  - (d) To protect, as far as practicable, Railway personnel who do not wish to join the Strike and to enable them to continue their work unmolested.

#### **29.8.0 Strike preparation:-**

Most strikes called by union are somewhat predictable. Since strikes are spontaneous action by working people, they may be serious sometimes life threatening and safety hazards in the work place. Therefore security of the work place may be enhanced. Unauthorized person should not be allowed to enter into the work place. Gathering in and around the work place should not be allowed. Management should negotiate with the union leaders to settle the dispute and avert the strike.

### **29.9.0 Effect of strikes:-**

- a). Stoppage of work which may affect the production of a production unit.
- b). Service/communication break.
- c). Stoppage/reduce maintenance outage of a maintenance unit.
- d). Create inconvenience to public.

### **Action during strike:-**

#### **Duties of security department :-**

During a Railway strike, the Railway security department should be well alert. They should depute adequate staff at the work place to protect the Railway property and infrastructures from damage and destruction by the agitated people. During strike there may be some staff who do not participate in strike and come to work. So adequate security for them should be arranged so that they can work with out fear.

**Duties of commercial department.:-** The Concerned department should arrange food and water etc., for the staff who do not participate in strike and come for work. Such arrangement can be done through IRCTC or by any other alternate means. The respective department may also be arranged for night halt if needed.

**Duty of medical department:-** Strike may cause violence which result injury to staff. So doctors may be available with readiness for any emergency situation. All medicines should be available in the hospital. Ambulance should be kept ready.

**Duty of personnel department:-** Personnel department should depute inspectors to monitor the welfare of the staff working during strike period. They should keep the record of the attendance of the staff present during strike. Staff may be hired if required and help from state government, military, paramilitary, territorial army also may seek for to continue the service to public.

**Duties of Engineering Department:-** During Railway strike the agitated staff may damage track, bridges. So adequate spare to be kept ready at suitable location to replace/ repair the track / bridges. Help from TA may be sought for to guard the track/bridges.

**Duty of Mechanical Department:-** During strike the train may be forcibly stopped at some places and may cause cancellation of trains due to non availability of rake. So additional rakes may be kept ready to run the trains.

**Duty of Electrical Department:-** During strike power supply may be cut off. So Generator of suitable capacity may be arranged to supply power to colony and Work places.

==\*=

**(CHAPTER– 30)**  
**DISASTER COMMUNICATION MANAGEMENT**

**Introduction**

Immediately after declaration of Disaster:

- i. Headquarter Central Control and SE/SSE(Sig)/HQ control will inform the CSTE, CSE and CCE at once.
- ii. SE/SSE(Sig)/HQ control (on duty) will also inform all open line S&T Headquarters officers
- iii. SSTE/TM shall call for JE/SE/Tele under his control and start operation of HQ control office at South Block. ECoR Sadan, Ground floor.
- iv. GM/Jt.GM/Dy.GM Railtel Corporation may be alerted.

**Signal & Telecom Control is located at HQ Office, South Block, Rail Sadan, Bhubaneswar.**

**Mobilization Plan of Officers and Staff**

- i. CSTE will immediately proceed to the site of the accident in HOD special. In case CSTE is not available, CSE/CCE will go to the site of accident. In case CSE/CCE is not available Dy.CSTE/HQ will go to the site of accident.CSE/CCE will remain in HQ when CSTE proceed to the site of accident.
- ii. One JE(Tele), two TCM/WTM's and two Khalasis working under SSTE/TM shall accompany CSTE with One Satellite phones of HQ and one FAX machine and 4 Walkie-Talkie sets along with chargers in GM's special.
- iii. CCE will be in charge of communication at all the locations and monitor the situation from HQ control.
- iv. SSTE/Tele(HQ)/SSTE(TM) will be specifically responsible for communication at central control office. One Satellite phone will be made operational at Central Control Office.
- v. Due to severity of accident if HOD Special is not moving due to traffic interruption, HQ Maintenance team consists of SSTE/TM, JE/SE/Tele, two WTM's and two Khalasis shall move with items listed at (ii) by Road vehicle to be arranged by Dy.CSTE/HQ for this purpose. One mobile relief van case is being processed for telecom equipments.
- vi. For meeting contingencies of cash imprest and movement by road necessary drawal from stations earning can be made by the officer reaching at site for site and by Dy. CSTE/HQ for HQ requirement.
- vii. Sr. DSTE/DSTE of the affected division will carry the satellite phone, FAX cum printer, two 25W VHF sets along with antenna and battery and 10 numbers 5W walkie-talkie sets to the accident site. He will be accompanied with at least one SE/SSE(Tele) and two TCMs. Four more SE/SSE (Tele)/TCMs and one SE/SSEs(Sig) of the section will also go to the site of accident at the earliest.
- viii. DSTE of divisions will immediately come to the divisional control office and will ensure setting up of all communication facilities.

**CENTRAL CONTROL COMMUNICATION ARRANGEMENTS :**

The communication arrangements in central control office, Rail Sadan will be arranged by SSE/Tele/Exch under supervision of SSTE (TM)/SSTE(Tele)

**Central Control office at Ground Floor. South Block, Rail Sadan,  
Chandrasekharpur, Bhubaneswar.**

Telephone No.2303564 having ISD/STD facility is already available in the Chief Coaching Controller. Dynamic locking code of the telephone is available with CHC/ Coaching control. (The dynamic locking code should be kept in a sealed cover in the control office which can be opened during emergency after duly entering in the register in case of non availability of CHC.)

Railway Accident Information-	-1072 ( Toll Free)
State Emergency Operation Centre	-1070(Toll Free)
District Emergency Operation Centre	1077( Toll Free)
Police Station	100 (Toll Free)
Fire station	101 ( Toll Free)
Ambulance	108 (Toll Free)

S.No	BSNL PHONE NO.	FACILITY	EXISTING& AVAILABLE WITH	RAILWAY PHONE ALREADY AVAILABLE
1	<b>2303564</b>	ISD/STD	CHC/Coaching	51160, 51066, 51168, 51664,
2	<b>2300373</b>	STD	CHC/Fr	51662, 51660, 82017, 72866,
3	<b>2300325</b>	Local	At central control	62389
4	51264 (Rly)	FAX	ALREADY EXISTS	

(Responsibility: Primary-SE/Tele/South Block Standby- JE(Tele)/Indoor)

The ISD facility at Zonal HQ Control and Divisional Control Offices have been provided in compliance to recommendation No.43(b) of High Level Committee on Disaster Management.

**i. Commercial Control**

- o Rly Tel. 51333,
- o BSNL Tel No. 2303110, 8455885972
- o FAX No. 50731 (Rly), 2302272(BSNL).

Railway Board ( Dialing Code- MTNL/DOT – 011; RLY – 030 )

- i. Emergency Control/Punctuality R.No. 476/P
  - 011-23388230 (STD) 43859 (Rly)
  - 011-23388503 (MTNL-STD/FAX) 43600 (Rly), 43528 (Rly),  
32636 (Rly)
- ii. Safety Cell R.No. 476 K
  - 23382638 (MTNL-STD/FAX) 43399 (Rly), 41550, 41551 (Rly)

(Responsibility:Primary-SSE(Tele)/Exchange/Rly.Board, Standby-JE/I&II(Tele)/  
Exchange/Rly.Board)

**COMMUNICATION ARRANGEMENT IN DIVISION:**

**30.3.2.1 Communication arrangement in KUR division.**

**i. Control Conference room**

Rly : 72819,72818 Inter-Com : 798, BSNL : 0674-24392374, FAX-72347(Rly),  
06742372347. Dy. Control : BSNL: 0674-2492374 (with ISD facility), Rly : 72452,  
Intercome-795, CHC-72360,72466(Rly0 , CUG-8455887938.

**ii. Commercial Control**

Rly : 72334, Inter-Com: 724 BSNL : 0674-2490670, CUG-8455887999. 1072; Accident  
Cell : 72563 (Safety section, Sr. DSO office)

(Responsibility:Primary-JE/Exchange/Indoor/KURStandby-SSE/SE/Exchange/ KUR)

Communication arrangement in SBP division

- i. Control Conference room  
Rly : 62401; Inter-Com - 669 ; BSNL : 0663-2520926 (with ISD facility), 0663-2401913,2532187 (Dy Chief controller), 0663-2401908, CUG-8455886938. Rly-62315,62478 Intercom-668.
- ii. Commercial Control  
Rly : 62332 Intercom- 629 BSNL :0663-2533037,2521091, 2521191,CUG 08555886999. 1072; (Responsibility: Primary-JE/Exchange/Indoor/SBP, Standby-SSE/SE/ Exchange/ SBP) FAX-06632400093.

Communication arrangement in WAT division.

- i. Control Conference room - Rly : 83096,82088,82089.  
BSNL : 0891-2746266 (conference), 08912746255( Emmergency)
- ii. Commercial Control -  
Rly : 82415 BSNL : 0891-2748641, CUG-08978080999 1072;  
(Responsibility:Primary-JE/Exchange/Indoor/WAT,Standby- SE/SE/Exchange/WAT)

Location of 1072 Nos. over ECoR

Specific DOT number for Railway Accident – Information (Railway Emergency Services – Allotment of 4 digit number ‘1072’ in compliance to recommendation No.43(b) of High Level Committee on Disaster Management has been installed at Khurda Road, Berhampur, Cuttack, Bhadrak, Puri, Sambalpur, Waltair, Jagdalpur, Rayagada locations as per Annexure – 10.

Satellite Phones provided over East Coast Railway Available at **Annexure – 10.**

#### **30.3.2.6. Help Line Booths at Important Stations**

Help Line booths are to be opened at all the important stations enroute of the affected train. 2 BSNL phones should be identified and kept pre-wired to the Help Line booths so that same can be energized in shortest time. (SSE/SE/JE(Tele) of respective division). Stations at which such arrangements are to be made and telephones which are to be utilized should be identified by Sr.DSTE with approval of DRM. FAX machine should also be provided at nearby location.

A list of such important stations (division-wise) is placed as Annexure-11.

Sr.DSO/DSO and On duty Station Master is authorized to hire 10 cell phones on spot in compliance to recommendation No.(44) of High Level Committee on Disaster Management and DOP Srl.No. 13(b). Total cell phones hired by all officials shall not exceed 10 in total per accident.

As per Rly. Bd's letter 2004/Tele/TN/2 dt.29.06.2006;, 4 nos of mobile cell phone to be kept by Sr.DSTE at location, preferably of different service providers.

### **COMMUNICATION ARRANGEMENTS AT ACCIDENT SITE**

Site Control Office

- i. The Engineering Department shall set up a control office in a waterproof tent. A prominently visible “UNIFIED COMMAND CENTRE” banner shall be displayed on the tent and shall provide sufficient number of tables and chairs for keeping the communication equipments.
- ii. Arrangement for 220V, 5KVA stabilized power supply shall be made by Electrical department for the communications equipment. In the railway control office, satellite phone with the FAX machine shall be installed for providing communication between the accident site, divisional control office and the emergency control office at Chandrasakherpur.



- iii. One 25 W VHF sets shall also be provided in the Railway site Control Office and one 25 W VHF set shall be installed in a road vehicle so that a mobile communication can be set up to a range of about 15-20 Km. This will help in providing communication between hospital and the Railway Control Office at accident site.
- iv. Three site offices shall be set up as follows:

- (a) Site Control Office-1 Medical/Commercial/RPF to be manned by Commercial staff.
- (b) Site Control Office-2 Control office to be manned by Telecom staff.
- (c) Site Control Office-3 CPRO-cum-Public Phone Office manned by CPRO staff. Telecom staff will man the telephone facility for the public.

**Note : All 3 control office at site shall be opened only for passenger train accident otherwise only (b) shall be opened.**

- v. Each of Site Control Office will be provided with FAX, Control phone, one BSNL phones and Two Railway phone (subject to technical feasibility). Where BSNL phones are not available, satellite phone will be provided.

One FAX Machine and at least two telephones (one BSNL & one Railway) should be kept free in EACH of the Site Control Office to receive only **INCOMING** calls.

#### **BSNL/Railway Telephones**

- i. Subject to availability and feasibility BSNL/Railway Telephones available at adjoining Stations/ Cabins/Gates shall be extended to the accident site. PCO telephones and other BSNL phone in the nearby localities/villages /Towns shall also be extended to the accident site by persuading the owners of these phones. Payments for such telephone connections will be made from the Station Earnings.
- ii. In RE area emergency sockets will be utilized for extending the communication to the accident site and in non-RE area where 6 Quad cable is available the same will be utilized for providing the communication.

#### **Satellite Phones :**

- i. Satellite Phone and FAX machine shall be kept in the divisional control Test Room under the charge of a telecommunication supervisor who shall be responsible for keeping these equipments in good fettle. Whenever any serious accident takes place, the nominated supervisor will rush these equipments to accident site and make these functional at the earliest.
- ii. Adjoining divisions shall also rush their satellite phones through fastest means to accident site through their nominated supervisors. Minimum two telecom staff will carry the satellite phone and FAX machine to the accident site. Total 2 Satellite phones shall be available at accident site.
- iii. Nominated telecom supervisor trained in setting up, handling and troubleshooting the satellite phones at accident site should be able to use the satellite phone for setting up internet connection through 'Lap Top' carried by the DRM. All S&T officers & Telecom Supervisors attending accident site shall be able to operate satellite phones independently.
- iv. HQ telecom control has to be informed regarding inter divisional movements and telephone numbers installed at site.

#### **Dialling Procedure for Satellite Phone:**

**Dialling International Access Code (00) followed by Country Code (91) then area code (i.e. City Code e.g. 674 for Bhubaneswar) and finally the subscriber number of the wanted subscriber.**

Responsibility: Primary: SSE/SE(Tele), Stand by: JE(Tele), DSTE/ASTE to ensure that staff specially trained and nominated to operate Satellite phones are deputed.

**Movement Plan of Satellite Phone :**

In case of an accident on any division, two satellite phones kept with SSTE/TM shall be moved to accident site. One additional Satellite Phones of adjacent divisions should also be as per plan given below.

SN	Division/Section of Accident	Division/HQ from where additional satellite phone to be moved
1	<b>KUR :</b> KUR-BHC, CTC-HND, KUR-I and KUR-II	KUR-PUI, KUR-BALU
2	<b>KUR :</b> HND-ANGL	KUR and SBP
3	<b>SBP :</b> ANGL-SBP	SBP and KUR
4	<b>SBP :</b> JSG-SBP	SBP and TIG
5	<b>SBP :</b> SBP-SPRD, TIG-KBJ	SBP and TIG
6	<b>SBP :</b> KBJ-R	SBP and TIG
7	<b>WAT :</b> VZM-SPRD	WAT and KRPU
8	<b>WAT :</b> PSA-VZM	WAT and KUR
9	<b>WAT :</b> VZM-WAT-DVD	WAT and KUR
10	<b>WAT :</b> K-K and K-R	KRPU and WAT

NOTE: Additional set shall be sent to SBP and WAT divisional HQ from BBS depending upon the requirement.

Two satellite phones of the division where accident has taken place shall also be moved to the accident site, with two telecom staff. Thus total No. of Satellite phones available at any accident site shall be 2 (Two).

**Wireless Communication****Walkie - Talkie Sets**

- i. **30 Nos. of 5 Watt hand-held walkie- talkie sets are kept in ARTs in compliance to recommendation No. (96) of High Level Committee on Disaster Management.** Walkie-talkie sets shall be mobilized at the accident site under the charge of a telecom supervisor who shall be responsible for issuing these sets to different supervisors and officers.
- ii. 10 Nos. 5 Watt walkie-talkie sets has been kept in each ARME. S&T staff will carry 10 No. sets to the site of the accident. Sr. DSTE shall keep 20 sets as reserve in the divisional headquarters office so that these walkie-talkie sets could be taken to the accident site, if required.
- iii. The charging facility for the walkie-talkie sets shall be provided in the ART/ARME so that these sets are kept in fully charged condition at all the times. It must also be ensured that sufficient spare batteries are made available at the site in fully charged condition for changing the working batteries.

**25 Watt V.H.F. Sets**

- i. V.H.F. communication shall be set up at the site using 25 watt set with battery back up. Another 25 Watt V.H.F. set shall be carried to site mounted on a road vehicle to facilitate communication with nearby hospitals, where injured passengers are admitted. The road vehicle will be nominated by DRM. One SE/JE(Tele)/TCM shall also accompany the road vehicle.
- ii. Two numbers of 25 watt VHF sets are kept in each ART in compliance to recommendation No. (96) of High Level Committee on Disaster Management.

**Public Address System and Mega Mikes**

- i. Public address system must be made functional at accident site – both for communication with passengers/public and also to give directions to railway staff regarding relief

operations. For this purpose, additional P.A. systems may become necessary depending upon the requirements at accident site.

- ii. In addition, mega mikes available in accident relief train will also be utilized. P.A. systems & mega mikes shall be under charge of the nominated supervisor.

**Staff to be deployed at the Site**

A roster shall be prepared by Sr. DSTE for the staff to proceed to the site of accident for operating nominated equipments. Standby staff shall also be notified. Arrangements of Road Vehicles to proceed to accident site, indicating alternative vehicles as well, shall be notified. Arrangements of vehicle drivers shall also be notified.

**Duties of Railway Officers at the time of accident:**

CCE shall be in charge of all communication arrangements at all locations. Dy.CSTE/HQ/ SSTE/HQ shall be responsible for making necessary arrangements in Emergency Control Office at South Block, ECoR Sadan.

HQ Telecom control shall monitor installation of various telecom gadgets at site.

SE/JE/Sig./HQ in shift duty shall inform CSTE, CCE, CSE, Dy. CSTE(HQ), SSTE/T, SSTE/Sig, ASTE/Tele, SSTE/TM and shall arrange the S&T vehicle on emergency duty in HQ control office to the residence of the officers deputed for emergency control duty so that these officers can reach the emergency control room within 15 – 20 minutes on the first information.

Simultaneously CSTE/C and Dy.CSTE/C of the concerned division shall be alerted with advice to keep their stores open and vehicles in readiness for movement of men and material to site if so ordered by CSTE.

**Power Requirement**

230V AC, 5 KVA power will be required for the communication arrangements at the site of the accident. In addition, charging arrangements will be required in ARTs and ARMEs for charging the walkie-talkie sets.

**Video Conferencing**

This item is awaiting for further instruction from Railway Board.

**“SUFFICIENT MOCK DRILLS SHALL BE CARRIED OUT TO ENSURE SMOOTH OPERATION WHEN REQUIRED.**

=\*=

## **CHAPTER-31**

### **MEDICAL PREPAREDNESS AND HOSPITAL DISASTER MANAGEMENT PLAN**

#### **Network of Mobile Medical Infrastructure:**

The Indian Railways has an established network system capable of handling train accidents along with emergency medical response and casualty evacuation. The system is based on an infrastructure consisting of 161 Accident Relief medical Vans (ARMV) – Scale I (Unit of accident relief trains situated at an average distance of every 300kms on main lines and 400 km on branch lines), 320 Accident Relief Medical Equipment (ARME) – Scale II consisting of three sets of Portable Medical Kit for Accidents (POMKA). POMKAs are also available at all health units, sub-divisional and divisional/zonal hospitals. Trained manpower of medical and all other departments of the Indian Railways provide first aid, immediate and necessary emergency medical treatment to save the life and limbs of persons involved in train accidents and arrange rapid evacuation to the nearest government/private hospital by the first available means of transport. There is a well-rehearsed action plan to handle railway accidents.

The system is committed to the primary goal of meeting the needs of the Ministry of Railways, though this resource may be available in a limited manner for assistance of the district administration for mass casualty management.

#### **Responsibility of Stake Holders:**

##### **Medical Response:**

Medical Response has to be quick and effective. The execution of medical response plans and deployment of medical resources warrant special attention at the State and District level in most of the situations. The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries, will be emphasized. Mobile medical hospitals and other resources available with the centre will also be provided to the States/UTs in a proactive manner. Post-disaster management of health, sanitation and hygiene services is crucial to prevent an outbreak of epidemics. Therefore a constant monitoring of any such possibilities will be necessary.

The main stakeholders in the Medical Preparedness and Mass Casualty Management (MPMCM) are the Ministry of Health and Family Welfare, Ministry of Labour and Employment, Employees State Insurance Corporation, Ministry of Defence, Ministry of Railways, State Governments and Union Territories and private health care providers.

NDMA's guidelines on Mass Casualty Management (MCM) have been prepared to provide directions to the Central Ministries, Departments and State Authorities for the preparation of their detailed Medical Preparedness Plans. These guidelines call for a proactive, participatory, well-structured, fail-safe, multidisciplinary and multi-sectoral approach at various levels.

Each organization of the Government may be made aware of risks, vulnerabilities and effects of various natural and man-made disasters including peripheral emergencies in terms of mortality and morbidity; short and long-term health effects including the socio-economic problems faced by the community during, and in the aftermath of MCE. The need for creation of an institutional mechanism and system is essential. This would result in enhancing capacities and capabilities of hospital and health care workers. So also is the need

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

A review of the existing health framework, preparedness of the Ministry of Health and Family Welfare, Ministry of Defence, Ministry of Railways and Ministry of Labour and Employment in relation to their capacity for handling casualties caused by various disasters is to be done so as to share each other's strengths and capabilities. Ministry of Health and Family Welfare is assigned with legislative capacity for a number of subjects including all matters relating to the medical, dental, nursing and pharmacy professions and education; mental health; standards for drugs; prevention of food adulteration; and prevention and control of epidemics.

Medical preparedness of Ministry of Defence, Ministry of Railways and ESIC have also been elaborated in the NDMA's guidelines. A brief outline of the arrangements with the state health departments is enumerated; there is also a bird's eye view of the health care infrastructure of the private sector, Indian Red Cross Society, certain Non-Governmental Organisations and various laboratories. Among the various International initiatives, the role of the recently operationalised International Health Regulations in limiting the spread of epidemics and other public health emergencies by the Member States has been highlighted in the guidelines.

Medical preparedness aims at preventive and mitigation measures. Preventive measures include upgrading public health laboratories and establishing an integrated Disease Surveillance Programme (IDSP). Preparedness for Emergency Medical Response (EMR) for the management of mass casualties at the incident site and, their quick and safe evacuation by ambulance services is an important step in this direction. Inadequacy and lack of appropriate capabilities and capacities in existing medical arrangements have to be appreciated. The need for hospital disaster preparedness plans along with the non-availability of medical logistics in critical care have been highlighted by NDMA in their guidelines which need to be followed up. The cold chain system in blood transfusion services needs to be established all across the country. The requirement of specialised facilities for CBRN management has also been highlighted by NDMA.

NDMA's guidelines are comprehensively given for a legislative and regulatory framework, preventive measures, preparedness, capacity development, hospital preparedness, specialised health care and laboratory facilities, role of alternative systems of medicine and identification of the dead, psychosocial care and mental health services and Research and Development for MPMCM. The roles and responsibilities of various stakeholders at the centre state and district levels are also described. The salient highlights in the guidelines include:

- Preventive measures like strengthening of epidemic control programmes, immunization, HIV control etc., development of minimum standards of food and water; IDSP and its integration at all levels converged to develop an effective Early Warning System (EWS) operable at all levels.
- The Medical First Responders (MFRs) of mobile medical teams will be fully trained in triage and resuscitation; well-equipped and supported by all emergency services and material logistics.
- Emergency medical evacuation requires development of an Integrated Ambulance Network (IAN) including road, aerial and water ambulance networks integrated with

special trains for MCE and not only self-propelled Accident Relief medical Vans (SP-ARMVs) of the railways as mentioned in the guidelines. As the evacuation of large number of casualties cannot be done by an ARME (or SP-ARMVs) the Railways have adopted the concept of mobilization of special train for MCE when required. It will work in conjunction with Emergency Response Centers (ERCs), ESIC medical services and related emergency functionaries with laid down Standard Operative Procedures (SOPs) for all stakeholders.

- Full-fledged containerised mobile hospitals will be acquired and attached with hospitals earmarked by states/districts.
- Capacity development will include training of all stakeholders including doctors, nurses, paramedics and other resource persons in triage and Basic Life Support (BLS), and development of specialists.
- Hospital preparedness should aim at planning the use of hospital resources in a well coordinated and simple way with defined roles for all medical personnel.

Railways have to arrange special trains consisting of AC and/or non-AC coaches to run from the nearest coaching terminal to the site for evacuation especially for large scale casualties. Railway and non-Railway Medical Teams may be deployed in these special trains along with a portable kit of medicines, etc. (POMKA) to attend to the injured during the process of evacuation. In these special trains casualties even in hundreds can be evacuated; the medical attention, however, would be limited vis-à-vis what can be provided in the ARMVs.

Each different type of casualty requires a specialized training to handle it. The Railway Medical Department neither has the training nor can they digress from their principle function of providing medical care to the railway men and their families including to ret'd. staff/families. During a Chemical Disaster, as the public areas are far away from station premises it may not be possible to run the ARME or a special train to the location close to the site. In some situations due to effect of Chemical Gases (as was the case in Bhopal Gas tragedy of Union Carbide) even the Loco Pilot/Guard and the Medical Teams may not find it possible to reach the site in the immediate period of post-Disaster.

Railways are not expected to be a main stake holder in the DM Plan of CBRN disasters. They can at best be involved in the evacuation of casualties by a special train (A/c and non A/c coaches) from the nearest station closer to site to a station serving Hospital, nearby. Skeleton First Aid facility can be extended by the Railways Medical Team in this special train. In any case it would take a maximum of 5/6 hours for the special train to evacuate the casualties once it reaches near the site to reach the station serving the Hospital.

The medical and paramedical staff of Railways need to be imparted training for management of CBRN disasters, till the specialist force arrives at the disaster site. As an alternative zonal railways must cater in their own plans to arrange special trains consists of AC and non AC coaches for the purpose of evacuation of large number of casualties in a mass casualty event whenever the railways may be called upon to help the district and state authorities. Railways may not be the main stakeholder in disaster management for CBRN disasters but railways should also train their Para medics, Medical First Responders and Quick Medical Reaction Teams (QMRTS) and train them to provide pre hospital care in case of CBRN attack within the trains or platforms and should be able to respond till such time specialized teams of NDRF/SDRF mobilized to reach the site. Therefore, it is essential to provide personal protection equipment and other equipment, training to Para medics and Medical officers for the limited role for your own set up.

In the NDMA's Guidelines on Medical Preparedness and MCE, under the head of Medical Preparedness (Page 31) in Item 3.3.3 (i) a no. of duties are defined to be done by the Medical First Responder (MFR). It is specifically mentioned that adequate no. of Personnel, Protection Equipment (PPE) should be available with the mobile teams, various first responders and rescue services. Further, in item (ii) (b), it is mentioned for evacuation of CBRN victims the use of Rail Ambulances is currently non-existent.

### **Aim of Hospital Disaster Management Plan:**

The aim of a Hospital Disaster Management Plan is to provide prompt and effective medical care to the maximum possible, in order to minimize morbidity and mortality resulting from any MCE.

### **Hospital DM Plan:**

“The Hospital DM Plan comes into effect only if the competent authority so authorized declares on the Zonal Railways an incident as a disaster. It can also come into effect if any Central/ State Govt. agency declares a major incident a Disaster, and where the Medical facility of the Railways shall be required to give assistance.”

### **Objective and Goals of a Hospital Disaster Management Plan:**

The hospital disaster management plans should address not only mass casualties that has occurred away from the hospital, but should also address a situation where the hospital itself has been affected by a disaster – fire, explosion, flooding or earthquake, etc.

The role of the Railway Hospital will be of a general hospital only. After assessment of the hospital resources, treatment capacity and surgical capacity (refer Annex-1 of Chap 4, Page 105 of NDMA Guidelines on Medical Preparedness and Mass Casualty Management), its Hospital Disaster Management Plan should be available to the Divisional /Zonal Railway Administration and also to the district administration.

### **Disaster Drills:-**

As a part of the emergency management plan, every hospital is required to have structure in place to respond to emergencies, this structure is routinely tested during drills.

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

### **Training of Health Care Personnel of Indian Railways:**

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

= 0 =

## (CHAPTER-32)

### **Provision/Continuation of activities of Station, Division Control Room & Head Quarter Control Room in case they are affected by Disasters.**

#### **Contingency Plan for Station Disasters:**

Following Emergency situations may arise at station in general.

- Major Fire/Smoke in station buildings / station periphery.
- Fire/Smoke in or under the Train in station yard.
- Natural Disasters- Severe cyclone, Land fall, Earthquake, Floods, Snow fall and land slide, etc.,
- Chemical Disasters and Medical Disasters
- Major Derailment, Collision, Structural Collapse at station including FOB/FUB.
- Civil Disorder / strike.
- Bomb Threat, Flammable/Combustible Liquid/ Vapour Intrusion/ Gas leakage, etc.,
- Power Grid failure/ Power Companies strike & Total communication failure.

All on duty Station Masters and other staff should be aware of emergency contact telephone numbers of local resources and stake holders likely to be contacted to meet the above emergency situations. Such particulars may be available in a chart-form in front of SM / wall painting of SM building and Disaster Management Plan.

At the time of any emergency situation, on duty SM shall arrange announcement / ring the warning bell to attract the attention of all Railway staff of all departments, passengers and other public. All shall be told to assemble at the assembly spot / Circulating area of the station in search, relief, rescue & restoration of activities under direction of SM or senior official/officer in station after assessing the actual damages.

#### **In case of Fire:-**

Prompt action is required to shift entrapped passengers and try to extinguish fire by using fire buckets & fire extinguishers initially according to the procedure as discussed in Chapter of Fire disaster. To control the fire, nearest Fire Brigade may be contacted to send the fire tenders.

#### **In case of natural disaster:-**

SOP for concerned disaster may be adopted as discussed in concerned disaster management chapters.

#### **Major Derailment, Collision and Structural Collapse:-**

Following steps to be ensured by SM, when an accident takes place in station limit and station building is affected.

- Inform Section Controller, TPC controller and all other concerned with requirement of assistance after assessing the gravity/damage of accident systematically as prescribed in rules. ( If Control telephone is out of order then advise both adjacent and other major stations with the help of CUG mobile phones or other means of communications)
- Take the assistance from non-Railway stake holders if available near the station. Ask assistance from NDRF, State Disaster response force through Divisional Officers, fire team, local administration & police etc.
- Ensure that no train enters the affected section. Affected sections as well as adjacent lines is protected.
- Call all the off-duty staff of all departments in station and allot them specific duties for relief & rescue.
- Render medical aid locally through nearest hospitals, dispensaries and doctors. Take help from local transportation agencies, Local Civil Authorities & Police.



- Arrange protection of Railway & public property.
- Arrange opening of Help Booths/Helpines with manning for round the clock for giving ready information to public regarding names & address of injured /dead passengers and regulation of trains.
- Provide all sort of assistance to affected passengers such as food, drinking water, free message to relatives with the help of commercial dept and NGOs.
- Arrange for the sectional clearance of unaffected vehicles for restoration except the accidents suspected to be sabotage.

#### **In case of Civil Disorder / strike /Riot :-**

Any breach of the peace by a group of people assembled in one area or gathering of unruly mob which may develop into a riot. The riot may result into violence by setting fire, looting, attacking civilians / passengers.

The station area & premises should be protected by Security Personnel of RPF, GRP, Civil Defense & private Security by classifying the Zones according to SOPs of Railway Protection Force (RPF).

Hot Zone - Un stable, Potentially unsafe.

Warm zone - The area is relatively safe for emergency.

Cold Zone - Safe Area with little likelihood of unrest.

#### **Bomb Threat, Flammable/Combustible Liquid/ Vapour Intrusion/Gas Leakage:-**

- Ensure that no train enters the affected section. An affected section as well as adjacent lines is protected and inform section controller.
- RPF/ GRP and Local Police along with Dog squad, Bomb Squad and Inspector of Explosives to be informed immediately.
- It should be ensured by repeated announcements that, the immediate vicinity of suspect object area is vacated so as to reduce loss of lives in the eventuality of explosion before Bomb Disposal Squad reaches the spot. Local Police/ GRP/ RPF should carry out the following.
- Clean / evacuate the area.
- Screen the suspect object by putting sand bags around it.
- Ensure that no one touches or approaches the suspect object.
- Ensure that all emergency exit paths are open & clear of obstructions.
- Ensure proper and periodic announcements. (Precaution:- Luggage scanner & analytic CC Camera reports may be reviewed in the mean time Bomb Squad and Dog Squad arrives.)

#### **Immediate Temporary Arrangements:-**

##### **Structural Failure/ damage:-**

Temporary arrangement for shelters will be organized by works department (Engineering) by engaging tent houses and other materials locally available on purchase / rent for immediate functioning of Station, if no alternative service building is available in the vicinity. If a surplus service building can be indentified a temporary station working may be commissioned with connection to section control & TPC.

##### **Power Grid Failure & Total communication failure:-**

In case of Power Grid Failure & Total communication failure, the same will be arranged by Electrical department immediately by organizing / arranging DG sets departmentally or locally on rent basis till the permanent restoration. Similarly, alternate means of communication facilities to be organized by S&T department.

## Responsibilities of various Departments.

Activity	Responsibility (Department)
Rescue operation	Mechanical & Medical
Relief operation including care for dead/injured/critical	Commercial, Medical & Security
Structure	Engineering (Works)
Lighting/Electrification	Electrical
Communication net works	S&T
Crowd control, Law and Order	Security
Restoration of rolling stocks	Mechanical
Restoration of Fixed structures like Track, OHE etc	Concerned departments
Media Management	Site Manager, Public Relations and Commercial

## Contingency Plan for Division Control Room & HQ Control Room Disasters:

### Emergency Preparedness Concept :

This consists of two phases such as Preventive Phase and Responsive Phase. The Preventive phase consists of preventing the occurrence of the incident or accident. The Responsive phase consists of response once an incident has occurred and with minimizing its effect.

### Short Term:

If the control room in division or at Head Quarter is disturbed or interrupted due to cyclones, earth quakes or due to any Medical Disasters, etc., the following steps may be taken for emergency and smooth train operations:

In case of exigencies like earthquake/Cyclone/Chemical disaster/Biological disaster or any other similar disaster wherein there is damage to the existing control room & could not function in the normal way necessitating provision of an alternate temporary control room so as to ensure that the safe train movement is not affected.

In such exigencies it is imperative that Divisional control as well as Headquarter control should have provisions of alternative arrangements of temporary control rooms for which following arrangement should be kept in place by respective departments at divisions/HQ to meet the exigencies.

### CIVIL Engineering :

Civil engineering department at divisions and Headquarter should identify alternative locations for setting of temporary control rooms in and around existing controls depending upon the situation prevailing at the time of disaster. A plan of temporary control room duly approved by GM/DRM showing dimensioned space for each department should be available. Accordingly provision of POTA CABINS of adequate capacity shall be kept in their maintenance contract so as to cater for temporary control room during aforementioned disaster. Apart from this, they should arrange the following items for operation of temporary control.

- Hard & Soft copies of all miniature yard plans, system maps, time table.
- Manning of the temporary control office.
- Office stationeries

Activity Responsibility (Department) Rescue operation Mechanical & Medical Relief operation including care for dead/injured/critical Commercial, Medical & Security Structure Engineering ( Works) Lighting /Electrification Electrical Communication net works S&T Crowd

control, Law & order Security Restoration of rolling stocks Mechanical Restoration of Fixed structures like Track, OHE etc Concerned departments Media Management Site Manager, Public Relations and Commercial.

### **Electrical Department:**

The electrical department of the Division as well as Headquarter should arrange the following items.

- a. DG sets of adequate capacity for power supply to the control rooms along with Diesel.
- b. Transformers, Switch Gears to be arranged for emergency Electric Wiring and cabling for general lighting and electrical supply to other appliances.

### **S & T Department :-**

The S&T department of the Division as well as Headquarter should arrange the following items. Telecom works to be carried out as following :

For Divisions :

- a. PVC cable to be laid from existing control office/near exchange telecom room to newly identified area consisting of POTA cabins/tents in which all sectional boards and control phones to be connected.
- b. New Headquarter equipments along with 12 volt power pack, mike and speakers to be connected parallel so that all boards can work immediately without intervention of S & T department.
- c. Headphones to be provided to all controllers.
- d. To extend rail net, adequate number of LAN extender setups to be connected from exchange rail net room to identified new areas. Their local LAN wiring is to be done temporarily to use rail net for all users/controllers as per the demand.
- e. 24 port manageable switches to be installed at exchange room that is one for COA and one each for FOIS/ COIS through OFC can be extended to all control boards and for USF controllers also. The indentified new areas to be facilitated with fibre termination so that rail net can be used on the same fibre.
- f. All telephones viz., Auto & intercom phones related to control boards to be shifted as per the demand by users.
- g. One 50 pair PVC cable to be laid to newly identified areas for further use of communication as per demand for divisions.
- h. Relevant Sketch & List of Materials/equipments required for Division are enclosed.

### **For Head Quarter Control Rooms :**

- a) PVC cable to be laid from existing control office/near exchange telecom room to newly identified areas in the chosen service building consisting in which all sectional boards and control phones to be connected.
- b) New Headquarter equipments along with 12 volt power pack, mike and speakers to be connected parallel so that all boards can work immediately without intervention of S & T department.
- c) Headphones to be provided to all controllers.
- d) To extend rail net, as per requirement LAN extender to be connected from exchange/ rail net room to identified new areas from their local LAN wiring to be done temporarily to use rail net for all users/controllers as per the demand.
- e) 24 port manageable switches to be installed at exchange room that is one far COA and one each for FOIS/COIS through OFC can be extended to all department controls. The indentified new areas to be facilitated through fiber termination so that rail net can be used on the same fiber.
- f) All telephones viz., Auto & intercom phones related to departmental controls to be shifted as per the demand by users.
- g) Adequate 50 pair PVC cable to be laid to newly identified areas for further use of communications as per demand.
- h) Relevant Sketch & List of Materials/equipments required for Head Quarters are

enclosed.

**Store Department:-**

- VDUs/PCs/Monitors/ Desk tops, Printers, Xerox machines to be provided on hire basis.
- The store department of the Division as well as Headquarter should arrange the furniture & other peripherals/office stationeries for the temporary control room for all departments of control room on hire basis.

**Commercial Department:-**

1. Arrange hired buses/taxis to be provided into service with RPF staff available in the buses /coordinate with local police for transportation of control staff from their home to work places to attend duties during disasters.
2. Arrangement of food and temporary accommodation for the control staff to stay long duration due to absence /impracticability of arriving the relieving staff reaching place of work

=\*=

## (CHAPTER – 33)

### **Multi Disaster Control Room**

#### **Provision of specific assets in Multi-Disaster Resistant Control Room.**

Department to provide	Nos.	Items required at Multi-Disaster resistant control Room
S&T	1	Wall mounted Colour T V with cable connection preferably LCD plasma TV to have update news.
	2	DOT Telephone with separate DOT and Railway telephone connection to communicate with messages to divisions and adjacent Railway.
	3	A FAX machine with separate DOT and Railway telephone connection to communicate with messages to divisions and adjacent Railway.
	4	Two Railway Auto telephone bearing the allotted emergency numbers.
	5	One satellite phone bearing the allotted number to have communication with the site.
	6	Mobile charging facility for all types of mobile phones.
Electrical	1	Power : The room should have uninterrupted source of power cable of taking entire load including air conditioning along with auto main failure feature.
	2	Refrigerator : There should be provision of a refrigerator to store some dry ration, eatables, water, some refreshment, snacks etc.
	3	An electrical; stove or micro oven to prepare tea, instant food etc.
	4	Four numbers of 5 kg DCP type fire extinguishers.
Engineering	1	To provide an oval shape table so as to accommodate at least 10 chairs.
	2	10 VIP chairs for sitting Officers and 10 other chairs for sitting accompanying officials/supervisors.
	3	To provide a rack with front glass doors with four shelves to keep different manuals, rules, books, registers etc. of all departments.
	4	To provide an Almirah to keep store items, towels, sanitary items, raw materials to prepare instant food etc.
	5	Provision of some platform for preparation of instant food and tea.
	6	Provision of wall mounted enlarged ECoR system map.
Safety	1	Copies of all rules and manuals of all departments to kept in the Disaster Control Room along with important circulars and correction slips. Information pertain to section, level crossings, bridges, etc. and SWR of all station etc. should also be kept in the control in the form of hard copies.
Accounts	1	Cash imprest of Rs 5000/- should be created under the charge of Safety Cell (Operating) for maintenance and use at the time of the disaster.

## ( CHAPTER-34 )

### EXTRACTS OF EAST COAST RAILWAY SCHEDULE OF POWERS FOR MEETING EMERGENCIES

#### ON WORKS MATTER

SN	Nature of Duties	Designatory	Powers Delegated
7(a)	To call and award single tenders for works in emergent situation which are as follows - (a) In case of accidents and breaches involving dislocation of traffic.	AGM	Full Powers up to his powers of acceptance.
		PHOD/CHOD	Up to Rs. 50 lakhs per case subject to annual limit of Rs 1 crore.
		SAG	Nil
		DRM	Up to Rs. 20 lakhs per case subject to the annual limit of Rs. 1 Crore
		ADRM	Nil
17	To dispense with the calling of tender for works in consultation with associate finance at the stage of acceptance of offer subject to the following -	CAO/C PHOD, CO-ORD, SAG  DRM   AGM PHOD, CO-ORD, SAG  SAG  DRM/ADRM CWM  JAG	Full Powers up to his powers of acceptance. Regarding item (a) only under column (2) Prior finance concurrence at the level of FA&CAO to be obtained in each case.  Up to Rs. 20 lakhs per case per PHOD subject to the annual limit of Rs. 1 Crore per PHOD regarding item (a) only under column (2) Prior finance concurrence at the level of FA&CAO to be obtained in each case.  Up to Rs. 10 Lakhs per case subject to the annual limit of Rs. 50 lakhs regarding item (a) under column(2) Prior finance concurrence of the Sr.DAO should be obtained in each case.  Up to Rs. 50 thousand in each case subject to an annual ceiling limit of Rs. 4 lakhs.  Up to Rs. 50 thousand in each case subject to an annual ceiling limit of Rs. 4 lakhs.  Up to Rs. 50 thousand in each case subject to an annual ceiling limit of Rs. 4 lakhs.  Up to Rs. 50 thousand in each case subject to an annual ceiling limit of Rs. 4 lakhs.

			Up to Rs. 40 thousand in each case subject to an annual ceiling limit of Rs. 4 lakhs.
SCHEDULE OF POWER ON DISASTER MANAGEMENT			
S.N	Nature of Duties	Designatory	Powers Delegated
1	Withdrawal of money from station earnings for rescue and relief operation including hiring of vehicle, cell phones, purchase of medicines Note- i. As far as possible multiple withdrawal of money from station earnings should be avoided for the same accident. This power be exercised by senior most administrative grade of branch officer at accident site /station.	AGM/PHOD/CHODDRM/ADRM/CMS SAG officers of HQ	Full powers.
		Sr.DME/Sr.DSTE/ Sr.DEE/Sr.DEN/ Sr.DSO/Sr.DCM/	Up to Rs. 20,000/-
		MS/Sr.DMO/ DMO/ADMO/ SM(Gaz)	Up to Rs. 10,000/- per occasion.
	ii. In the absence of JA grade officer this power will be exercised by Sr. Scale Officer with independent charge.		
2	Hiring of vehicles for rescue and relief operations for use in accident related transportation work, and to medical officers, for treatment of injured passengers at non-Railway hospitals. Rates should be reasonable as per prevalent market rate.	AGM/CCM, CMD / DRM/ ADRM/ CMS /	Full powers
		Sr.DCM/DCM/ & MS Sr.DMO shaving Independent charge.	Up to Rs.20,000/- per occasion.
3	On the spot payment to private hospitals for treatment of injured persons arising out of accidents.	AGM/	Full powers
		CMD /	See note
		DRM/ADRM/CMS	See note
		Sr.DMO/DMO/ ADMO	See note
	Note – powers to be taken as per item No.12 of Medical SOP. Payment of consultation fees to civil surgeons and other Medical Officers will be made as per Med.DOP. Item No.12and Para -712 of IRMM (ii) rate should be finalized in consultation with CMS.		
4.	a) Requisitioning medical assistance from Civil sector in case of Disaster /accident.	CMD,CMS	Full powers
		MS/Sr.DMO with independent charges	Up to Rs.20.000/- per occasion.
		DMO/ADMO/ SM (GAZ)	Up to Rs.10,000/- per occasion.

		SM NON (GAZ)	Up to Rs. 5,000/- per occasion.
	b)Purchasing of essential medical items/equipments including medicine not available at ARME/ART and procurement of additional life saving drugs from the market at the site.	CMD,CMS	Full powers
		MS/Sr.DMO with independent charges	Up to Rs.20.000/- per occasion.
		DMO/ADMO	Up to Rs.10,000/- per occasion.
		SM(Gaz),SM(Non-Gaz)	Up to Rs. 5,000/- per occasion.
5.	Hiring of cell phones at accident site which has cell phone connectivity. a) For Railway use.	DRM/ ADRM/ SAG officers of HQ	Full powers
		JAG /SS Officers	Up to Rs.5000/- per occasion
		Station Manager(GAZ)	Up to R. 2500/-per occasion
		SM ( Non Gaz/Station master.	Up to Rs.1000/- per occasion.
	b) For use of passengers at accident site free of charge	DRM/ ADRM/ SAG officers of HQ	Full powers
		JAG /SS Officers at accident site (Sr.DCM/DCM)	Up to Rs.5000/- per occasion
		Station Mananger(GAZ)	Up to R. 2500/-per occasion
		Station Manager ( Non Gaz/Station master.	Up to Rs.1000/- per occasion.
6	Hiring and purchasing of any material other than those listed at items 2 to 5 above which is required for quicker rescue/restoration operation at accident site.	AGM/	Full power
		DRM/ADRM/CMS	Rs 5 lakh per occasion
		SAG Officer of HQ	Rs 1 lakh per occasion
		Sr.DME (c&w), Sr.DCM	Up to Rs.20,000/-per Occasion.
		DCM, DME	Up to Rs.10,000/-per Occasion.
	<u>Expenditure at accident site or damage to floods, breaches,cyclones&amp;earth quakes etc.</u> i. For providing food, drinks,and transport to passengers to hospitals ii. Food and drinks for staff attending to break down duties.	AGM/ PHOD/CHOD/ HOD/DRM/ADRM/ CMS/Divn Branch officers	Full powers
	iii. To incur expenditure on setting up camp, lighting and transshipment arrangements on breaches and accidents	AGM/ PHOD/CHOD/ HOD/DRM/ADRM/ CMS	Full powers
		Divn Branch officers	Up to Rs.20,000/-per occasion
		Sr.Scale	Up to Rs10,000/-per occasion
		Jr.Scale	Up to Rs.5000/- per occasion



7	Expenditure at accident site for –	AGM POHD/CHOD/ HOD DRM/ADRM Divisional Officers	Full Powers. Full Powers. Full Powers. Full Powers.
	(a) Providing food and beverages and arranging for transport of injured passengers.		
	(b) Food for staff attending to breakdown/accident duties.	AGM/ CAO(C) PHOD / CHOD/ HOD	Full Powers.
	Note: In case of non-submission of proper accounts within three months after withdrawal from Stn. Earnings, necessary action should be taken by the Bill compiling accounts officer to recover the outstanding amounts of such station pay order from the salaries of the officers/staff.	DRM/ADRM  Divisional Officers	Full Powers  Full Powers.
	(c).To incur expenditure on setting up camp, lighting and transhipment arrangement on breaches and accidents.	AGM  PHOD/ CHOD/ HOD DRM/ADRM  JAG  Sr. Scale  Jr. Scale	Full Powers.  Full Powers.  Full Powers.  Up to Rs. 10,000/- on each occasion. Up to Rs. 5,000/- on each occasion. Up to Rs. 2,500/- on each occasion.
8	Purchase of spares and other equipments required for ART/ARME/BD crane and for all equipments contained therein.	CME,CMD ,CRSE/ CMPE/DRM ,CMS	Up to Rs.10,000/-in normal circumstances and up to R s. 1 lakh during Accidents.
		Sr.DME (C&W) MS/ Sr.DMO in-charge of ARMV.	Up to Rs.10,000/-in normal circumstances and Rs. 20,000/- d u r i n g accidents.
12 (iii)	Critical spares and equipments : such as Air Breathalyzer, Electrical cutting equipment, inflatable tower etc. required for ART/ARMV from approve	AGM , DRM/ADRM/CMS/ CRSE/ CMPE/Sr.DME	Full powersFull powers
		DME /MS	Up to Rs.20,000/- in each case.

	sources.		
14	<p>Requisition of Helicopters/Aero-planes due to serious passenger train accidents where :-</p> <p>a) More than 10 casualties(death cum serious injuries) are feared and it is difficult for these officers to reach the site within reasonable time.</p> <p>b). 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.)</p> <p>c). Public reaction in case of late arrival of Senior Officers at site as likely to be highly adverse.</p>	<p>GM/DRM</p> <p>(power to be exercised personally by GM/DRM and may not be delegated)</p>	Full powers.

#### **DELEGATION OF POWERS ( STORES MATTERS )**

SN	Ref. to Item/Board's order	Nature of Item	Powers delegated to AGM	Powers delegated to SAG Officers	Powers delegated to DRM	Powers delegated to JAG Officer	Powers delegated to Sr. Scale, Jr. Scale Officers.
47	711-S&Board's letter No.79-F(S)/1/PW-7/2 dtd.12.11.79 & 9F(S)/1/PW-7/4 dtd.05.12.80	Local purchase of materials of small value which are urgently required		a) COS/CMM full powers to make local purchase of items of small value both Stock and Non-stock upto Rs. 10,000/- per item subject to the fulfillment of the conditions.	Full powers upto Rs. 500/- subject to a max of Rs. 5000/- in a year after obtaining more than one quotation.	i a) Dy.COS upto Rs.10,000/- per item.	i a) SSO/GRC & DCOS : In depots ACOS's holding independent charge of Depots. ACOS/DCOS/Sr.DC Os in the Division upto Rs.10,000/- per item.

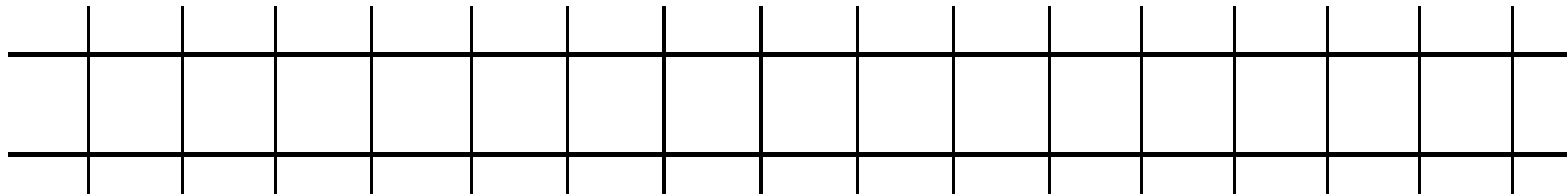
		ii.(b)On single quotation when urgently required					
48	706-S & Bd's letter No.70F(S)/I/P/W/7/I dtd.17.07.71	Procurement of DGS & D item including rate running contract items in emergencies	Upto the limit of 4 crores	<p>COS: Upto Rs. 1 crore &amp; CCM :Upto Rs. 50 lakhs in each case.</p> <p>COS/CMM will also decide when, for what quantity and in what manner such emergencies purchases shall be made.</p>	NIL	Dy.COS : Upto Rs. 5 lakhs	<p>SSOs : Upto Rs. 50 thousand</p> <p>ACOS : Upto Rs. 15 thousand</p>

**(CHAPTER -35)**  
**(LIST OF SENSITIVE INSTALLATIONS)**

The Following assets are considered sensitive as any disruption to such system can cause unsafe situation/ dislocation to traffic.

- a. All Route Relay Interlocking/ Panel Interlocking /Electronic Inter locking including the OFC huts, Point Goomties, Power supply systems, location boxes and Cabins etc.
- b. Control panel, Block instruments, UTS, PRS, Electrical Panel room and all communication equipments in SM's room
- c. Coaching complex, Carriage & wagon point, ARME,ART & Crane points etc.
- d. Fueling points, Crew & Guard lobby and Running room etc.
- e. All stores depot of Engg, Mech, Signal & Telecom, Electrical and Operating.
- f. All bridges and tunnels etc .
- g. SSP, TSS and Tower wagon/sheds etc.
- h. Divisional control office.

==\*=

**OUTLINE SCHEMATIC PLAN OF UCC/CAC/LCCs**

[Remote Disaster site]  
(if required)

(Nearer to main Disaster site)

[Remote Disaster site]  
(if required)

**L C C – 1**  
**(Local Command Centre)**  
**Appx.size-(25 x 15)ft**

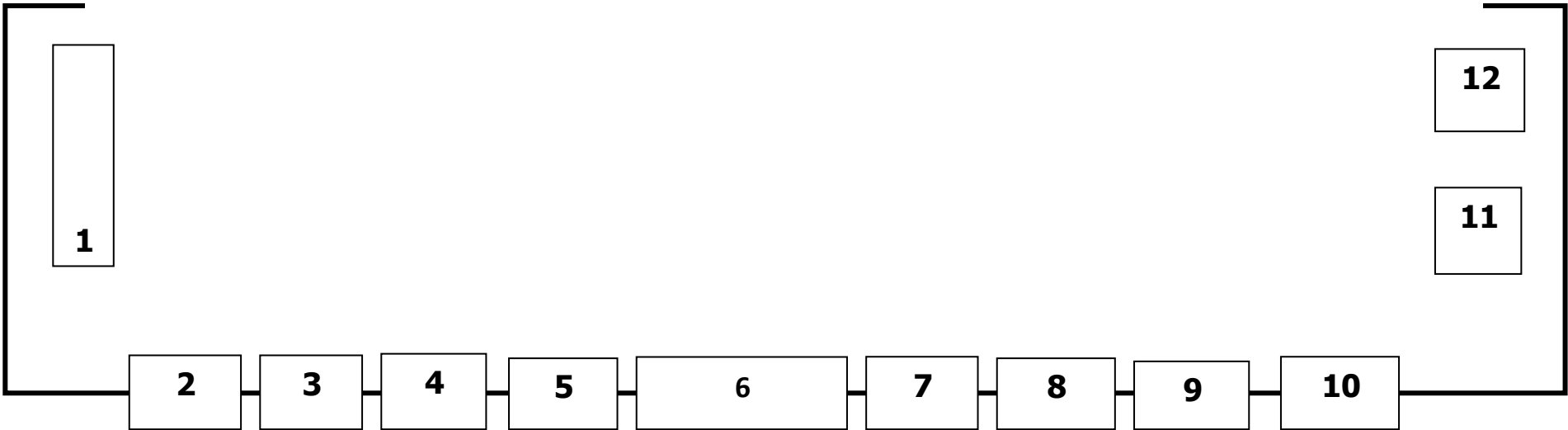
**U C C**  
**(Unified Command Centre)**  
**Appx.size-(45 x 20)ft**

**C A C**  
**(Combined Assistance Centre)**  
**Appx.size-(45 x 20)ft**

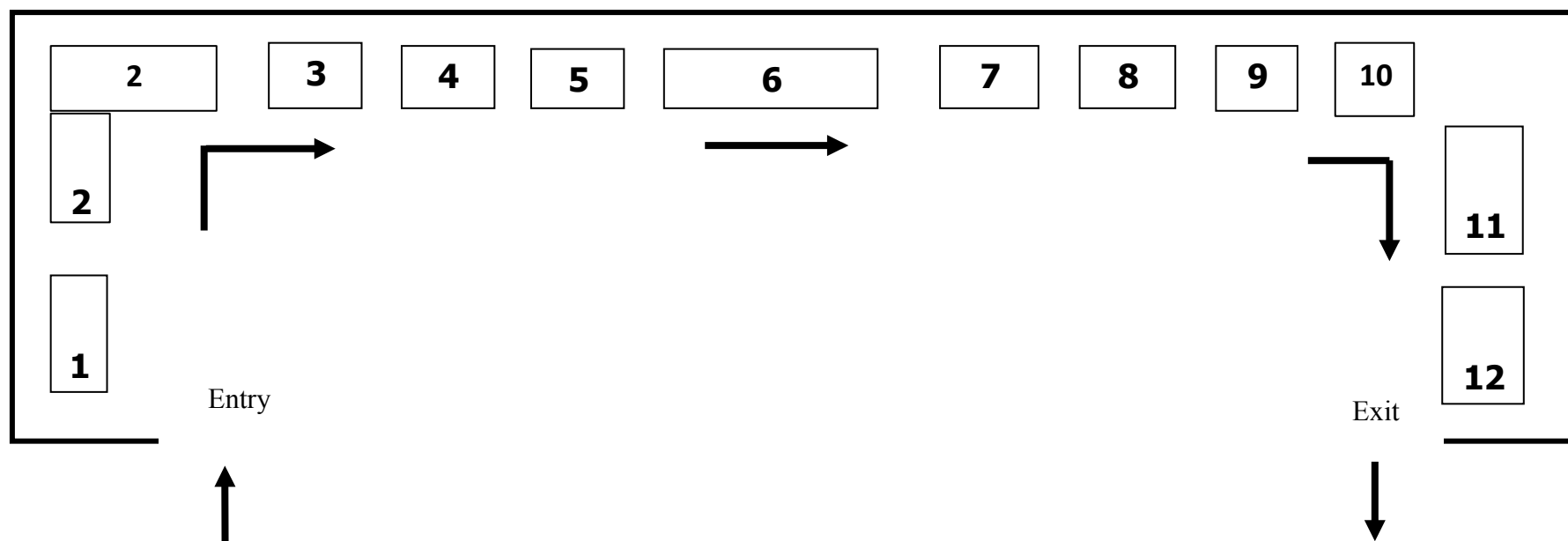
**L C C – 2**  
**(Local Command Centre)**  
**Appx.size-(25 x 15)ft**

**R D C**  
**(Reception & Despatch Centre)**  
**Appx.size-(15 x 10)ft**

DETAILED SCHEMATIC PLAN OF UCC (Unified Command Centre)



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

**DETAIL SCHEMATIC PLAN OF CAC(Combined Assistance Centre)**

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

**LIST OF ITEMS IN AUXILIARY BOGIE OF MEDICAL VAN****A. LIST OF MECHANICAL ITEMS :**

SI No.	Item No. & Description	Quantity	Purpose
<b>a</b>	<b>Mechanical Cutting &amp; Rescue Equipments (Hydraulic, Abrasive, Cutting and Gas Cutters)</b>		
1	Power Pack with extension Reel	2	Powering Hydraulic Tools
2	Hand operated pump as stand by	1	Powering Hydraulic Tools
3	Spreader with a set of 4 spare spreading jaws	1	Opening Coach Body
4	Cutting set with a set of 4 spare cutting jaws	1	Cutting window grills & different structural members.
5	Hand operated combo tool with a set of 4 spare cutting jaws	1	Cut and spread at loations where Power Pack can reach.
6	Spare extension reel	2	Extending reach of Power Pack.
7	Chain pulling arrangement to be used in conjunction with spreader	1	To squeeze & tear Panels.
8	Telescopic Ram	1	For displacing obstacles, lifting and peeling of Sheets during rescue.
9	Wind shield cutter	3	Cut window glass.
10	Spring Loaded punch	3	Punch window glass to make passage for the cutter.
11	Protection cover sets	12	To protect rescuer and victims from sharp edges cut in the coach body during rescue.
12	Electric Abrasive Cutter	3	Cut structural members if required.
13	Petrol Generator set for Power Abrasive cutter	2	Power cutter and hole saw drill. (3.5 - 4 KVA capacity)
14	Electric Power Saw	6	For cutting Wood & Ply (220 V , 600 W, Make- Bosch , CP , Webtool make or similar)
15	Electric Hole-saw cutter	2	Drive hole saw cutter. Power to be taken from the Gen set provided for abrasive cutting. (Suitable model from Bosch/CP/Web tool capable of taking 5/8" & 1/2" arbour)
16	Gas cutter set (1 set of regulator, one 5 ft. long torch, 2 ordinary Torches, 2 eye protector, 2 set hand gloves, 2 leather guard)	3 sets	Cut structural members if required.
17	DA + Oxygen set, (3 Oxygen + 1 DA) per set	3 sets	Cut structural members if required.



18	Hand Gloves set	20 pairs	Protection to welder/gas cutter staff
19	Eye Protector Goggles	20 nos.	Protection to rescue staff from metal splinters during spreading.
20	Petrol (in ltrs)	50	to be used as fuel
21	Hydraulic Oil (in ltrs)	50	for Hydraulic Equipment.
22	Oxy Fuel under water cutting tool	1 set per SPART	As per H.L.Committee's Recommendation no. 61. To do underwater cutting. (Torch, 3 under water cutting tips, under water igniter, under water shroud Assembly, 2.5 Gallon fuel tank with regulator, 25 ft air hose, 50 ft gasoline and Oxygen hose each, oxygen Back flash arrester and other accessories.)
23	Portable Electrically operated Cutting & Boring Tools of reputed make comprising of Trepanner, Shell shaver, Channel Cutter & Bar Cutter.	1 set per SPART	As per H.L.Committee's Recommendation No. 62. For cutting & boring of coach body to rescue passengers.
24	Emergency Inflatable Lighting Towers	2	As per H.L.Committee's Recommendation No. 60. For immediate lighting of accident site by Relief Van staff.
25	Inflatable air bags	1 set per SPART	As per H.L.Committee's Recommendation no.64. For lifting of heavy loads in inaccessible areas.
26	Portable hand operated hydraulic window bar cutters	3	For quick cutting of Coach window bars (Crimpwell or similar)
27	Hand Held Search Light (HHSL)	2 per SPART/AR ME	For effective searching of dead & injures during accident.
A-1	Higher capacity hydraulic rescue device for cutting stainless steel coaches/wagon	1	For cutting stainless steel coaches/wagons.
A-2	Portable Plasma cutting equipment for cutting stainless steel coach/wagon.	1	For cutting stainless steel coaches/wagons.
<b>b. Hand Tools and Other equipments</b>			
1	Pick Axes	6	For digging earth
2	Hammer sledge	6	For driving & pegging 7 lbs capacity, (Taparia, Jhalani ,Everest or similar)
3	Torch 3 cell (battery loaded)	24	For Break Down staff & site officials
4	Spare torch batteries	72	To be kept as spare.( 1.5 V, leak proof, nickel cardmium Batteries.)
5	Shovel	6	For digging earth

6	Phawara with handle	6	For clearing debris
7	Punch with Drift to punch a hole 16*55mm to facilitate insertion of spreader (Taparia, Jhalani or similar)	12	To punch holes in the coach body to accommodate spreader jaw
8	Sledge hammer (10 lbs/20 lbs capacity, Taparia, Jhalani , Everest or similar)	6	Drive Punch
9	Tool kit set (chisel, tommy bar, crowbar, pinch bar, pin punch) [Taparia, Jhalani, Everest or similar.	12	For undertaking of petty jobs
10	Hammer Ball peen (Taparia, Jhalani ,Everest or similar)	6	For petty works
11	Portable Rail trolley for material (As per Izzatnagar design or VSKP design or similar.)	1	As per H.L.Committee's Recommendation No. 89. For moving heavy equipment from ARMV to required -point at site.
12	Foldable Ladder	4	As per H.L.Committee's Recommendation No. 82.( 2 to 3 stage extension telescopic ladder with corrugated rungs with interlock facility. Extension by rope,pulley & gravity pawls fitted with non-skid rubber shoes & caps.)
13	Rope ladder of different length (Nylon PP Rope/Manila Rope(ISI Mark). With Wooden/Alluminium rungs.)	03 nos	For working of rescue staff where Aluminium ladder can not be placed.
14	Multi purpose Quick adjusting, self adjusting Spanners ( Different sizes)	6	For quick opening fasteners and attending repairs (SOLSON or similar)
15	Multi purpose Quick adjusting, self adjusting, slip free Pipe wrench	6	For gripping (SOLSON or similar)
<b>c. Personal Safety and Protective Items</b>			
1	Umbrella	24	For Break Down staff & on -site officials.
2	Rain Coat (Superior quality of reputed make with full pant & jacket made of good quality rubberised water proof cloth as like Duckback)	30	For Break Down staff & On-site officials.
3	Luminuous Jackets with two vertical & 2 horizontal lumniscent strips.Name of Rly. is to be written in the back & depot name in left front. (Orange Colour)	30	For use by Rescue workers.
4	Arm band luminscent type (Lumniscent band with depot name.)	100	For all Railway Staff in the accident site.

5	Helmet ISI mark (BIS:2925 & DGMS approved. 4 & 6 point adjustable head band & nape strap/cotton strap & chin strap in flexible PVC with rexin support.)	30	For all Railway Staff in the accident site.
6	Industrial Safety Shoe, confirming to IS 5677:1978	30	For Break Down staff & On-site officials.
7	Gum Boot, PVC supported with fabric lining moulded with anti-skid soles.	30	For Break Down staff & On-site officials.
8	Masks (for protecting foul smell). Cup type disposable or washable type,	100	For all Railway Staff in the accident site.
9	Duster/Khadi cloth	200	For using of staff at the time of rescue
10	Soap liquid (in ltrs)	5	For washing hands of staff & Officials.
11	Blanket	30	For use by ARME staff and officials
12	Pillow with Cover	30	For use by ARME staff and officials
13	Bedsheet-White	60	For use by ARME staff and officials
14	Leather hand Gloves,	25	For handling
15	Heat-proof jacket, helmet & flame retardant hand gloves.	4 sets	For handling hot and burning objects & to be used by staff who are involved in fire fighting.
16	Various type of safety belts/Harness	06 nos	For safely taking down to the injured passengers
17	Gas Vapour odour mask should have chemical resistant PVC face piece , with catridge/half canister , protection against toxic & poisonous gases & vapours.	10 nos	For the rescue staffs for work in poisons/harmful gas area
18	Life Buoy & life jacket for saving life from water - 4 nos each	8 nos	For staff & effected persons. Life Buoy - Made from durable synthetic material, totally moisture proof and not inflammable. Life Jacket - Manufactured from strong nylon in high visible orange colour coated with PVC for durability and cleaning easy.
19	Safety Nylon Net. (Made of Nylon PP Rope( ISI Mark ), outer border rope 10 mm/12 mm thick with inside mesh.)	02 nos	For quick removal of light injured passengers
20	Luminescent Barrier tapes	1200 m	For demarcation. (Luminescent safety barrier tapes, yellow & red colour, size - 4" width in roll of 250 mtr.)
<b>d.</b>	<b>Safety Items</b>		
1	Fire Extinguisher of all Class- A,B,C & D each 4 nos.	16	To Extinguish local fire
2	Buckets filled with sand	6	To be used by staff who are involved in fire fighting.
3	GR and Accident Manual	2 sets	For reference of ARME staffs.

4	Tail Lamp	4	To put behind the ARME
5	Red & Green Flag (in sets)	4	For hand signalling
6	Banner Flag	4	For putting on the track
7	Detonator (in boxes)	2	For putting on the track
8	Hand Lamp Tri-Colour	4	For hand signalling.
9	Portable Breath Analyser	2	For analysing breath for traces of alcohol
10	Battery operated lamps	6	Portable lighting & boiling facility
11	Water tank 500 ltrs	1	For storing of water.
12	Scene Tape	6 roll	To barricade the accident site.
13	Rope manilla Nylon 100 Mtr	1 No.	To pull small obstacle during rescue & restoration.
14	Safety cone	6 Nos.	To barricade the accident site.
15	Water mist fire fighting system along with 4 additional air cylinder.	1 set	To extinguish the fire.
<b>e</b>	<b>Furniture</b>		
1	Stackable plastic chair	20	As per H.L.Committee's Recommendation No. 74.
2	Inflatable tents	1 per SPART	As per H.L.Committee's Recommendation No. 68. (As per RDSO guidelines.)
3	Foldable Synthetic Tents	4	For use at Site
4	Kanath, Size ( 10' x 30' ) with 50' wall	1 per ARME/SPART	For use in Accident site as a covered shed for relatives of the stranded/injured passengers.( As per GM/ECOR's instruction vide Insp.Note No.07/2005)
5	Table foldable	5	For Break Down staff & site officials
<b>f</b>	<b>Miscellaneous</b>		
1	Shrouding Cloth (white)	100	For covering dead bodies.
2	Stretcher	4	For carrying injured staff/ victims.
3	Wrist Bands	100	As per H.L.Committee's Recommendation No. 81. To be tied to the right wrist of the deceased persons with token number. Identification Band : 100 x 70 x 0.7, Black Colour. Oval number punched aluminium plate will be stitched with durable nylon thread on the band. The number will be flurocent painted.

<b>g</b>	<b>Computers &amp; Camera Related Items.</b>		
1	Lap top computer with modem, "Rapid Recovery System" with 2 spare batteries along with charging facilities.	1 per zone	As per HLC's report at Item No. 66. For maintaining Database and information related to Relief / Restoration operation. Rly.Bd's Ltr.No. 97/C215/PCs/Rly.Bd,Dtd.29.01.04
2	Glossy photograph paper for use in inkjet colour printer (Kodak, Canon)	75	Papers for taking photographs of victim/evidence.
3	Scanner (HP, Samsung or similar)	1	For storing, printing & faxing Data/Photographs from accident site.
4	Inkjet Colour Printer (BM ,HP or similar)	1	
5	Cartridge set for colour Printer (BM ,HP or similar)	5	
6	Digital video Camera with 10 floppy discs	1Set	As per H.L.Committee's Recommendation No. 65. For recording crucial evidences, restoration, relief and rescue works. (As per RDSO Specifications )
7	Still camera	1	As per H.L.Committee's Recommendation No. 65. For recording crucial evidences, restoration, relief and rescue works. (As per RDSO Specifications)

<b>B</b>	<b><u>ELECTRICAL ITEMS FOR LIGHTING PURPOSES</u></b>	
<b>SINo</b>	<b>Items Description</b>	<b>Quantity</b>
1	Acoustic canopy type Diesel generator 5KVA 220/230 Volts fixed for train lighting & battery charging and another for communication equipments as mentioned at 29.4.1.	02
2	Acoustic canopy type portable generator Diesel driven 3 KVA/2.4 kw, 220/230 Volt with integral switch board with at least four plug points with wheel.(for storing of diesel as a common fuel for all types of generator)	07
3	Portable switch board with 4 water proof sockets ( 500 Watts load)	2
4	Weather proof LED flood light fittings,(IP65) 100watt with 15 mtr lead.	10
5	Weather proof LED light fittings,(IP65) 150watt with 15 mtr lead.	10
6	Main cable for fixed generator 15 Amp capacity three core armored rubber sheathed flexible 150 mtrs.	2
7	Drum on fixed stand for main cable	2
8	Stand for flood lights, 1800mm high with 10 mtrs lead with plug	2
9	Metal rectifier for charging 2 Train lighting batteries at a time	1
10	Weather proof LED light fittings, 70/80 watt with 15 mtr lead	6
11	250 W gas filled bulb screw type	6
12	100 W gas filled bulb boyonet type	4
13	Telescopic mast for power van 6 mtrs high	4
14	LED based search light (for safe unloading/ loading of equipments & movement at accident site during night)	02

15	Oil lifting hand pump(for safe &faster pouring of diesel into samller containers w/o spillage)	01
16	On board inverter 5 KVA,110V DC/230V (for operation of OT lights, refrigerator charging of mobile /laptop/walkie talkie /search light etc.	01

<b>C</b>	<b><u>S&amp;T ITEMS FOR TELECOMMUNICATION PURPOSES /ARME</u></b>	
<b>SI No</b>	<b>Items Description</b>	<b>Quantity</b>
1	Amplifier(40 watt)/(60 Watt)	02 no.
2	Microphone	02 no.
3	Floor stand for microphone	02 no.
4	Horn type speaker	04 no.
5	Portable stands for loudspeaker with adjustable height from 1.5 to 3 mts.	02 no.
6	Twin twisted flexible wire for connecting amplifier and loud speaker	400 mts
7	mega Phone	04 no.
8	Portable telephone 2/4 wire with accessories	02 no.
9	plastic readymade tent	01 no.
10	5 watt VHF set with spare battery	05 no.
11	Battery Charger for 5 watt VHF	05 no.
12	25 watt VHF Set	01 no.
13	12 volt DC maintenance free battery	01 no.
14	230 volt AC/12 volt DC battery charger	01 no.
15	Digital multimeter	01 no.
16	Hand held torch of 3 cells complete dry cells	02 no.
17	Sealed rechargeable battery operated emergency lamp	01no.
18	GI box with tools	01 set
19	Auto telephone	02 no.
20	Umbrella (Big)	01 no.
21	Inspection book	01 no

**TELEPHONE NUMBERS OF RAILWAY BOARD & QUICK RESPONSE TEAM OF RAILWAY**

NEW DELHI (MTNL) STD CODE – 011

NEW DELHI RLY STD CODE – 030

<b>Designation</b>	<b>Rly Tel No.(Off.)</b>	<b>Rly Tel No.(Resi)</b>	<b>MTNL Tel No.(Resi)</b>	<b>MTNL/Rly FAX</b>	<b>Mail Address</b>
Principal Executive Director / Safety	43302, 47406	23381344	23210429	23386215	<a href="mailto:kumar.vinod1@gov.in">kumar.vinod1@gov.in</a>
PS/PED/Safety	43302, 47406	23381344	-	-	-
ED/Safety	44505, 47407	23782546	21612200	23782546	<a href="mailto:edsafety@rb.railnet.gov.in">edsafety@rb.railnet.gov.in</a>
PPS/ED Safety	44505, 47407	-	-	-	-
ED/Safety-II	43446, 47407	23389987	4548501 (0120)	-	<a href="mailto:dsfty2@rb.railnet.gov.in">dsfty2@rb.railnet.gov.in</a>
Dir/Safety-I	43667, 47409	23387009	-	-	<a href="mailto:dsfty@rb.railnet.gov.in">dsfty@rb.railnet.gov.in</a>
PS/Dir/Safety-I	43667, 47409	23387009	-	-	-
Dir/Safety-III	43239, 47411	23385047	49053824	-	<a href="mailto:dsafety3@rb.railnet.gov.in">dsafety3@rb.railnet.gov.in</a>
Dir/Safety-IV	43574, 47412	23070944	-	-	<a href="mailto:dsfty4@rb.railnet.gov.in">dsfty4@rb.railnet.gov.in</a>
JD/Safety (A&R)	47575	-	-	-	-
DD/Safety (A&R)-I	43998, 47415	23303998	-	-	<a href="mailto:abr.tripathi@gov.in">abr.tripathi@gov.in</a>
DD/Safety (A&R)-III	44353	23304353	-	-	<a href="mailto:harish.banga@gov.in">harish.banga@gov.in</a>
DD/Safety (Impl)	44480, 47417	23304480	-	-	<a href="mailto:ddsftyi@rb.railnet.gov.in">ddsftyi@rb.railnet.gov.in</a>
DD/Safety-III	43580, 47418	23303580	-	-	-
SO/Safety-I	47417	2347417	-	-	-
SO/Safety (Impl)	43533, 47419	23303533	-	-	-
SO/Safety/DM	43771, 47420	23303771	-	-	<a href="mailto:sosafetyar@rb.railnet.gov.in">sosafetyar@rb.railnet.gov.in</a>
SO/Safety(A&R)	43803, 47422	-	-	-	-
Chief Cntr.Safety	43599, 43399, 47423	23382638	-	-	-
Safety Inspector	44425, 47421	23304425	-	-	-

**IMPORTANT TELEPHONE NOS OF E.Co.R ZONAL HQ OFFICERS**

Sn	Designation	Railway	BSNL ( CODE – 0674)	Mobile	Fax	
					Rly	BSNL
1	General Manager	50000 (O) / 50001 (R)	2300773 (O) / 2302773(R)	8455880000	50700	2300196
2	Secy to GM	50002 (O) 50003	2300029 (O) / 2303582 (R)	8455885000	50700	2302758
3	Chief Safety Officer	50560 (O) / 50561 (R)	2300957 (O) / 2726240 (R)	8455885940	50766	2748558
4	Chief Mechanical Engineer	50050 (O) / 50051 (R)	2303370 (O) / 2301957 (R)	8455885400	50750	2303530
5	Chief Electrical Engineer	50040 (O) / 50041 (R)	2303515 (O) / xxx	8455885300	50740	2302524
6	Chief Engineer	50020 (O) / 50021 (R)	2300571 (O) / 2303544 (R)	8455885200	50720	2301887
7	Chief Operations Manager	50060 (O) / 50061 (R)	2303122 (O) / 2303955 (R)	8455885900	50760	2300313
8	Chief Medical Director	50550 (O) / 50551 (R)	2302041 (O) / 2744390 (R)	8455885500	50756	2303052
9	Chief Signal & Telecom Engineer.	50080 (O) /50081( R)	2301891 (O) / 2303681 (R)	8455885800	50780	2303508
10	Chief Security Commissioner	50590 (O)/ 50591 (R)	2303509 (O) / 2301109 (R)	8455885700	50790	2302830
11	Chief Commercial Manager	50030 (O) / 50031 (R)	2300375 (O) / 2300993 (R)	8455885950	50731	2302272
12	HQ Control	51662,51660,51664	2303564	-	-	-
13.	Dy CHC (Disaster)	51064	2303110	8455885939	-	-

**TELEPHONE NUMBER OF COMMISSION OF RAILWAY SAFETY**

Designation	Office (Rly.)	Office (BSNL)	Mobile No.
CCRS	032-31140	0522-2233108	9794842049
CRS/NR	030-54752,53	---	9717630004
CRS/CR	010-54950	22056058	9821081597
CRS/WR	090-22694	22034351	9987640290
CRS/NE/Circle	23291 (NR), 31141 (NER)	2234515 (NR)	9794842050
CRS/SE/Circle	080-27062	22484858	9002080850, 08455885820



**IMPORTANT TELEPHONE NOS OF DIVISIONAL HQ OFFICERS**

Sn	Designation	Railway	BSNL	Mobile	FAX	
<b>SAMBALPUR ( BSNL STD CODE- 0663)</b>					<b>RLY</b>	<b>BSNL</b>
1.	Divisional Railway Manager	62200 (O) / 62201 (R)	2401331(O) / 2400498 (R)	8455886000	62343	2401331
2.	Addl. Divisional Railway Manager.	62202 (O) / 62203 (R)	2405312 (O) / 2404872 (R)	8555886001	62402	2405312
3.	Sr. Divisional Safety Officer	62460 (O) / 62263 (R)	2533097 (O) / 2533096 (R)	8455885940	62538	-
4.	Chief Controller	62330 (O) / 62369(R)	2401913(O)	8455886925 8455886939	62260	2533169
<b>KHURDA ROAD ( BSNL STD CODE- 0674)</b>						
1.	Divisional Railway Manager	72200 (O) / 72201 (R)	2490567 O) / 2490568 (R)	8455887000	72100	2492568
2.	Addl. Divisional Railway Manager	72202 (O) / 72203 (R)	2490264 O) / 2490364 (R)	8455887001	72902	2490264
3.	Sr. Divisional Safety Officer	72266 (O) / 72267 (R)	2491404 O) / 2491403 (R)	8455887940	72662	-
4.	Chief Controller	72360 (O) / 72361 (R)	2492374(O)	8455887928	72347	2372347
<b>WALTAIR ( BSNL STD CODE- 0891 )</b>						
1.	Divisional Railway Manager	82200 (O) / 82201 (R)	2746200 O) / 2762000 (R)	08978080000	82404	2728832
2.	Addl. Divisional Railway Manager	82202 (O) / 82203 (R)	2746202(O) / 2746203 (R)	08978080001	82404	2728832
3.	Sr. Divisional Safety Officer	82460 (O) / 82461 (R)	2591033(O) / 2750900 (R)	08978080940	82860	-
4.	Chief Controller	82466 (O) / 82467 (R)	2746255(O)	-	82562	2842562
5.	Conference Hall	82088, 82089, 83096, 82265	2746255, 2746266			

**TELEPHONE NUMBERS OF HELP LINE BOOTHS AT IMPORTANT STATIONS OF ECoR**

Divn	Station	STD Code	Tele. No.	CUG No	Divn	Station	STD Code	Tele. No.	CUG No	Divn	Station	STD Code	Tele. No.	CUG No
<b>K U R</b>	BHC	06784	252440	8455889900	<b>S B P</b>	JSG (SER)	06645	270977,	-----	<b>W A T</b>	NWP	08945	249728	8978081947
	JJKR	06726	221301	8455889906		SBP	0663	252122,	8455892816		CHE	08942	286313	8978081951
	CTC	0671	2610460	8455889917		RAIR	06644	253169,	8455892845		VZM	08922	224240	8978081958
	BBS	0674	2531637	8455889922		BLGR	06652	232620	8455892825		KTV	08966	273131	8978081902
	KUR	0674	2490670	8455889925		TIG	06655	220524, 220249	8455892831		VSKP	0891	2746268	8978081966
	BALU	06756	220412	8455889934		KSNG	06670	222040, 222033	8455892832		DVD	0891	2587301	8978080928
	BAM	0680	2201431	8455889942		AMB	06863	244800,	8455892837		PVP	08963	221038	8978081976
	PSA	08945	241039	8978881006		THV	06856	230008,	8455892872		RGDA	06856	224300	8455893900
	PUI	06752	223476	8455891891		KBJ	06657	221479,	8455892830		LKMR	06855	268608	8455893907
	DNKL	06762	228529	8455889952		TRKR	06657	293289,	8455892869 9437144138		KRPU	06852	251442	8455893911
	TLHR	06760	240231	8455891193		KRAR	06678	222236,	8455892865		ARK	08963	249632	8978081984
	ANGL	06764	232731	8455889960		MSMD	07723	222068,	9752410130		JDB	07782	222408	9752413950
	PRDP	06722	229434	8455891866		Raipur (SECR)	0771	2525018	9752092491		KRDL	07857	255799	9752413965

## TELEPHONE NUMBERS OF WAY SIDE STATION OF EAST COAST RAILWAY /SAMBALPUR DIVISION

SI No	Station name	Railway No.	BSNL No.	SI No	Station name	Railway No.	BSNL No.
<b>JHARSUGDA – TIG – THERUBALI</b>				<b>TIG- RAIPUR</b>			
	<b>Jharsugda ( JSG)</b> 080-74052 (S.E.Rly)	62690,	06645-270977		<b>Titlagarh (TIG)</b>	<b>68364</b>	06655-220524 8455892831
1	Jharsugda Road (JSGR)	62689	06645-214300 8455892811	34	Rahenbhata (RNBT)	68401	06652-2944264 8455892871
2	Brundamal(BXQ)	62688	06645-214290 8455892812	35	Muribahal (MRBL)	68402	06655-272131 8455892870
3	Lapanga (LPG)	62687	0663-214030 8455892813	36	Kantabanji (KBJ)	68403	06657-221479 8455892830
4	Rengali (RGL)	62686	0663-2560699 8455892814	37	Turaikella (TRKR)	68404	9437144138 8455892869
5	Sason (SSN)	62685	0663-2456640 8455892815	38	Hari Shankar Road (HSK)	68405	06658-286005 8455892868
6	Sarala (SLRA)	62684	0663-2115787 8455892863	39	Lakhna (LKNA)	68406	06678-228106 8455892867
7	<b>Sambalpur (SBP)</b>	<b>62342</b>	0663-2522122 8455892816	40	Nawapara Road (NPD)	68407	06678-223424 8455892866
8	Hirakud (HKG)	62541	0663-2113095 8455892817	41	Khariar Road (KRAR)	68408	06678-222236 8455892865
9	Godbhaga (GBQ)	62542	06682-230637 8455892818	42	Komakhana (KMK)	68409	07707-265572 9752416041
10	Attabira (ATS)	62543	06682-220213 8455892819	43	Bagbahara (BGBR)	68410	07707-242404 9752416042
11	Deobahal (DOBH)	62808	--	44	Bhimkhoj (BMKJ)	68411	07707-283734 9752416043
12	Baragarh Road (BRGA)	62544	06646-230122 8455892820	45	Arand (ARN)	68412	07723-231115 9752416044
13	Barapali (BRPL)	62545	06646-256719 8455892821	46	<b>Mahasamund (MSMD)</b>	68413	07723-222068 9752416045
14	Dungripali (DJX)	62546	06653-270531 8455892822	47	Belsonda (BLSN)	68414	9752416047
15	Khaliapali (KHPL)	62547	06653-245209 8455892823	48	Arang Mahanadi (ANMD)	68415	9752416048

16	Loisinga (LSX)	68437	06653-274189 8455892824		Raipur (R ) (SECR Rly)	<b>075-72572</b>	0771-2525018 9752092491
17	<b>Bolangir (BLGR)</b>	<b>68436</b>	06652-232620 8455892825		<b>LANJIGARH RD - JUNAGARH RD</b>		
18	Bichupali (BHPI)	64301					
19	Deogaon Road (DFR)	68435	06652-284153 8455892826	49	Bhawanipatna (BWIP )	68439	8455881078
20	Saintala (SFC)	68434	06655-256038 8455892827	50	Junagarh road (JNRD)	68440	----
21	Badmal (BUDM)	68433	06655-250695 8455892828		<b>ANGUL - SAMBALPUR</b>		
22	Sikir (SFK)	68432	06655-294250 8455892829	51	JSPL /Acabin	63212	-----
23	<b>Titlagarh (TIG)</b>	<b>68364</b>	06655-220524 8455892831	52	Kerjanga KPJG)	63211	06764-212232 8455892862
24	Kesinga (KSNG)	68421	06670-222040, 8455892832	53	Jharapada (JRPD)	63210	06764-289555 8455892861
25	Kandel Road (KDLR)	68422	06670-212369 8455892833	54	Boinda (BONA)	63208	06763-255078 8455892849
26	Rupra Road (RPRD)	68423	06677-242141 8455892834	55	Handapa (HNPA)	63207	06763-212179 8455892848
27	Narla road (NRLR)	68424	06677-240156 8455892835	56	Sargipali (SRGP)	63206	06763-258042 8455892847
28	Langigarh road (LJR)	68425	06677-241622 8455892836	57	Bamur (BAMR)	63205	06763-214080 8455892846
29	Ambadola (AMB)	68426	06863-244800 8455892837	58	Redhakhol (RAIR)	63262	06644-253169 8455892845
30	Dahikalu (DKLU)	68427	06863-249030 8455892838	59	Charmal (CHAR)	63204	06644-252157 8455892844
31	Muniguda (MNGD)	68428	06863-245118 8455892839	60	Jujumura (JUJA)	63203	06681-257676 8455892843
32	Bisamacuttack (BMCK)	68429	06863-243776 8455892840	61	Hatibari HATB)	63202	06681-271666 8455892842
33	Therubali (THV)	68430	06856-230008 8455892872	62	Maneswar (MANE)	63201	0663-2115955 8455892841
	<b>Rayagada (RGDA) (WAT DIVIN)</b>	85662	06856-224300 8455893900	63	Sambalpur City (SBPY)	63200	0663-2115835 8455892864

**TELEPHONE NOS OF MEDICAL / HOSPITAL, POLICE STATION/ FIRE STATION, AMBULANCE AVAILABLE AT SAMBALPUR DIVISION  
(STATION-WISE)**

SL No.	1	2	3	4	5	6	7	8	9	10
	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
1.	<b>RNBT</b> 8455892871	Govt Hospital/TIG 06655-22070	08 km from RNBT	Pradeep Ku Naik	06655-22070	60 bed.	108, 102	TIG 9938223127	TIG-8917599405 100(E)	BLGR- 06652- 232020 Mob:- 977135607
2.	<b>MRBL</b> 8455892870	Govt CHC/MRBL	04 Km	Dr. J Sahu Mo-9439981397 Dr.Sangram Nayak 9439987382	9439085002	10 Bed.	MRBL- 9938115209 108, 102, 112	KBJ 06657-220464	MRBL- 9438284946, KBJ- 06657220240 MRBL- 06655272100	NA
3.	<b>KBJ</b> 8455892830	CHC KBJ 06657-221901, Railway Hospital	1.5 Km	Dr. Govind Agrawal 9437240491 Dr.S.K.Barik 9439987489	CHC/KBJ 06657221901	30 Beds & Blood Bank	108,102	KBJ/ Blood Bank-06657-220464	Katabanji, 9556072914	Khaprakhol CRPF 9419053210
4.	<b>HSK</b> 8455892868	Lathore Hospital	1 Km.	Dr. Patra 9437127563 Dr.P.Meher 9439987262	06658-232622	Only Minor OPD	108, 102, 112 9437223808	KBJ-06657-220464	Lathor Thana- 9861003322	Khaprakhol 06652250189
5.	<b>TRKR</b> 8455892869	Govt. CHC TRKR	09 Km	P.P Meher TRKR Govt Hospital Dr.S.K.Khamari 9439987489	P.P Meher 06657-296032	10 Beds	108/102/112	KBJ-06657-220464	TRKR police stn 9556072914	Khaprakhol 06652250189
6.	<b>BLSN</b> 9752416047	District Hospital MSMD 07723-222180	10 Km	Dr. R.K Pardal- 9425215652	07723-222108	100 beds	108, 102, 112	District Hospital MSMD- 07723222103	MSMD, 9473192305	MSMD 9479191767
7.	<b>ANMD</b> 09752416048	ANMD PH- 07720-258730	02 Km	Dr. K S Rai 9424210361	8827538800	Only OPD	108, 102, 112	Agrawal Blood Bank 07713-060518	ARN 9479191052 07720-258235	CRPF Raipur 07712512902
8.	<b>MSMD</b> 9752416045	Govt Hospital MSMD 07723-222108	03 Kms	Dr.N.K Mandape 9754002043	07723-222108	100 beds	102/108/112	07723- 222103/222203	City Kotwali, Mahasamund- 9479192305	MSMD 9479191767

	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
9.	<b>ARN</b> 9752416044	Akalpurak Aditya Nurshing home Hospital Govt. Hospital- 07723-222203	11 km 11-.5 km 14.5 km.	, Dr.H.S Gurudutta, Dr.N.K Mandape 9754002043	07723-222650	30 brds	102/108/112	Govt Dist Hospital 07723-222103 200 units	City Kotwali, MSMD- 9479192305	State Paramilitary forces 9479191767
10.	<b>BMKJ</b> 9752416043	Govt. Hospital BGBR	12 Kms	R.K Kusuwanshi 7611165556	7707242422	30 beds	102/108/112	CHC-BGBR 761115556	Khalari Thana 9479192315	20 BN/MSMD 9479181767
11.	<b>BGBR</b> 09752416042	Govt. Hospital, BGBR	250 meters	Dr. Kuruwansi, BMO 7611165556	7707242422	30 beds	112/108	CHC-BGBR 761115556	BGBR 9479192310	MSMD 9479191767
12.	<b>KMK</b> 9752416041	KMK Govt.CHC 9754090767	01 Km	M. Chandrakar 9745090767 Dr. S Dave 7974419409	9754090767	10 beds	108/112	CHC/BGBR 7611165556	KMK, 9479192316	MSMD 9479191767
13.	<b>NPD</b> 8455892866	Govt Hospital NPD	04 Km	Dr. K.L Behera 9439989988 Dr.L.M.Bishi 9437292867	NPD 06678-225346,	Govt. Hospital 200 beds.	9777405533 B Meher. 108/102	Dr.L.M Bisi NPD 9439989989 300 units.	NPD-100, 06678-225423 Mrs Sarita Barla 9439961220	CRPF Com. -06678- 211334
14.	<b>LKNA</b> 8455892867	NPD, Govt. Hospital	20 Km	Kaliprasad Behera, 9439989988 CMO	06678-223346	200 Bed	108 & 102,112	L.M Bisi, NPD 9439989989	LKNA 8249054179	NPD 06678- 211334
15.	<b>SFK</b> <b>8455892829</b>	TIG 06655-220455	11 Km	Dr. Sunil Ku panigrahi	Govt Medical TIG- Ph. No 06655-220726	Primary facility available	108,102,	TIG Mo- 9938223122, 600 units.	TIG, 06655- 220441	-
16.	<b>BUDM</b> <b>8455892828</b>	OFBL Hospital BUDM Govt Hospital TIG.	3 Km 24 Km.	Dr. Sunil Ku panigrahi Dr. A Bhounik Dr.P.Ch. Behera	OFBL Hospital BUDM 06655-250301	Primary facility available	108, 102, 06655-250301	SDH/ TIG- 06655-220318	SFC out post- 06655-250040	CRPF Ctrl Room 06655- 252222
17.	<b>SFC</b> <b>8455892827</b>	Govt. Hospital, SFC OFBL/BUDM	02 Km 12 Km	Dr.S.Mahaparta 9439140195	9439987440	primary facility available	108, 06655- 250301	DHH/BLGR 06652-230646	SFC 9437239204 7978886177	CRPF 06652- 250189
18.	<b>DFR</b> <b>8455892826</b>	C.H.C, DFR 06652-284011	1.5 Km	Dr. S Parida Geetanjali Sahu Ankit Mohanty	9439985888 8280496057 8270875631	primary facility available	108	BLGR 8280406449 1200 unit	DFR 9437979199 IC- R Bariha	NA

	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
19.	<b>BLGR</b> <b>8455892825</b>	DDH, BLGR Harihar Narshing home	03 Km 02 Km	Dr. B Sahu Dr. A.K Deo Dr.S.Dutta 9439987163	9439987100 9439253305	primary facility available	108, 8908477970	7077924096	Town Police- 9438916522	CRPF 06652-250189
20.	<b>SBPY</b> <b>8455892864</b>	GOVT. Hospital, Budharaja, SBP. JMJ Hospital & Nursing home N.H-06 Sanjivani N H	5/6/7 Km	Dr. R.Sahu- 9437255660, Dr.S.B.Patel 9439986001 Dr.A.Mahapatra 9439986003	Govt Hospital, 0663-2401843 Dr. K. Purohit- 9437051262 Sanjivani-0663-2404022.	All facility available 80 beds at Govt. Hospital & 20 beds at Sanjivani N home	108,102, 8895921415, 9438488335 MCL- 9437016130, JMJ-0663-2545270	9438386566, Red cross- 99338301060 Govt. Hospital/SBP- 9861864225	Dhanupali-0663-2411100, Mo- 9437180107	NA
21.	<b>MANE</b> <b>8455892841</b>	Dist HQ Hospital	15 Km	Dr. Naresh Ch Pradhan 9439998365 Dr.S.B.Patel 9439986001 Dr.A.Mahapatra 9439986003	0663-2520700 9853343997	Dispensary	9439891915 9439891925	9853422021	Sadar PS SBP 989778043844	0663-2410190 9438878949
22.	<b>HATB</b> <b>8455892842</b>	PHC/Dhanupali	12 Km	Dr. Ramesh Ch Pradhan 9439998365 Dr.S.B.Patel 9439986001 Dr.A.Mahapatra 9439986003	9439998365	10 beds.	108, 102 9439891915 9439891925	9853422021	JUJA, 7008911448	06632410190 9438878949
23.	<b>JUJA</b> <b>8455892843</b>	CHC, JUJA	02 Km	Dr. P.K Sahu 9437127107 Mr.Jayanta Sahu(PHS)	Ph -06681-257799	10 beds	108, 102 9439891915 9439891925	9853422021	JUJA Mo- 7008911448	06632410190 9438878949
24.	<b>CHAR</b> <b>8455892844</b>	CHC, CHAR	2.5 Km	Dr.T.D Dash. Dr. B Sahoo Dr.S.P.Sharma 9439986098	06442520100 9556765664	10 beds.	9439891915 9439891925	9853422021	CHAR 9439141974	06632410190 9438878949
25.	<b>RAIR</b> <b>8455892845</b>	Govt. Hospital RAIR,	Govt-03 Km,	H. K Pati 9437285646 Dr.B.B.Sahu 9439985689 Dr.R.N.Mishra 9861048024	Govt. Hospital Ph No- 06644-253031 9439985689	Govt.-50 beds	108,102 7735975155	9853422021	RAIR Police Station No-100, 9439629027	0663-2410190 9438878949
26.	<b>BAMR</b> <b>8455892846</b>	CHC, Kishor nagar	06 Km	Priyabrata Das	06763-257145 9439981835	20 beds	108, 102 06763-257144 7008205960	RAIR 9853422021 ANGL- 9238580953	Kishore Nagar P.S Ph-06763-257028. 9438916446	SBP-0663-2410190 9438878949
27.	<b>SRGP</b> <b>8455892847</b>	CHC, Kishor nagar	16 Km	Priyabrata Das	06763-257145 9439981835	20 beds	06763257145 7008205960	9238580953	HNPA 7008271055	SBP-0663-2410190 9438878949
28.	<b>HNPA</b> <b>8455892848</b>	PHC/BONA	12 Km.	S. K Nanda N.C.Mishra.PHS 9439981837	06763255499 9937234319	10 beds	108, 102 06763255499 7008205960	9238580953	HNPA, Mo- 7008271055	06632410190 9438878949

	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
29.	<b>BONA 8455892849</b>	BONA, PHC 06763-255499	01 Km	Dr. S.K Nanda. 9937234319 Dr.A.K.Das 9439981331 Dr.M.R.Biswal 9439981334	06763255499 9937234319	10 beds	108, 102 7008205960 06763255499	ANGL 9238580953	HNPA No- 7008271055	0663241019 0 9438878949
30.	<b>JRPD 8455892861</b>	PHC, JRPD 06764289285	1.5 Km	Dr. R.K Bedera Dr.A.K.Das 9439981331 Dr.M.R.Biswal 9439981334	06764289285	20 beds	108, 06764289285	9238580953	JRPD 06764288915 9438916441	06632440190 9438878949
31.	<b>TIG 8455892831,</b>	Sr.DMO/TIG 8455886507 Govt. Hospital, TIG 06655220455 256301	01 Km	Sri Pradeep Ku Naik Dr.K.Panda 9439987089 Dr.R.Rout 8457090327	9439987089 0665-220726 Jeevan Jyoti Nurshing Home	100 beds.	108	TIG Mo- 06655-220455	TIG DSP No.- 06655- 220441,100	NA
32.	<b>KSNG 8455892832</b>	C.H.C KSNG	01 Kmn	A. Khan Dr. Satish Panigrahi Dr.B.Agrawal 9938412616	Karim Clinic/KSNG 9640802437 Govt/Hospital 8338800541	50 beds	108, 102	BWIP 06670-234952	KSNG 06670-222004 9438916779	NA
33.	<b>KDLR 8455892833</b>	CHC/KSNG	15 Km	A. Khan Dr. Satish Panigrahi Dr.B.Agrawal 9938412616	8338800541 9640802437	50 Beds	108, 102,	BWIP 06670-234952	KSNG 06670-222004 9438916779	NA
34.	<b>RPRD 8455892834</b>	PHC/RPRD	0.5 Km	Dr. M.R Sathapathy Dr.S.Sahoo 9817416696	8328829526	---	108 & 102	BWIP 9777511186	NRLR No- 9438302740	NA
35.	<b>NRLR 8455892835</b>	CHC/NRLR	2.5 Km	Dr. Sant Ku. Jena Dr.S.K.Satapathy 9937853648	9439980087	10 beds	108, 102	BWIP/ DHH 06670-234952	NARLA 9438916783	---
36.	<b>AMB 8455892837,</b>	P.H.C/AMB	01 Km,	Dr. Sachin Tripathy 7019805790	P.H.C/AMB No- 8144484169	10 Beds	108, 102, 9124109784	---	AMB 06863-244755 N Jani 9437319514	NA
37.	<b>LJR 8455892836</b>	DHH/BWIP Maa Manikswari Hospital	35 km 34.5 km	Pratap Ku Behera Rakesh Sahu Jalandhar Meher P.P Nayk Dr.B.Senapati 7328833900	DHH/BWIP 9439980000 9439980001 Maa Manikeswari 9109789090	BWIP-478 beds Maa Manikswari- 45 beds.	108, 102 6746641000 8249835262	BWIP 9437419624	NRLR Police Station 9438916783	LJR 6370713130
38.	<b>DKLU 8455892838</b>	PHC AMB	12 Km	Dr. Sachin Tripathy 7019805790	---	----	108	----	AMB, IC- N Jani 9437319514	---
39.	<b>MNGD 8455892839</b>	CHC, MNGD	01 Km	Dr. Sanjay Kumar, 6371501120	Dr. Sanjay Kumar, 6371501120	---	108	NA	MNGD S SAhu 9438229690	----



	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
40.	<b>BMCK</b> 8455892840	CHC- BMCK, Christian Hospital-BMCK	7 Km	Dr. Sunil, Hena Sahu P Sahu, A Pradhan Dr.H.Mohanty 7978611041	CHC/BMCK- 9437458186	CHC/BMCK- 100 beds, Christian Hospital -30beds	108	---	BMCK, 9439066966	---
41.	<b>THV</b> 8455892872	IMPHA Hospital	03 Km	P.K Karo Dr.A.Nayak 9439983501	9853526100	---	108, 102	----	Chandili Police Station 8890048232	NA
42.	<b>BWIP</b> 8455881078	Govt Hospital Maa Manikswari	06 Km. 05.5 Km	CDMO/Kalahandi Dr.P.K.Behera 9439980000	6372440454 Maa Manikswari	Govt- 250 beds Nurshing home-24 bed	108 & 102,	7978701902	Sadar Thana Ph- 8895212314 9938111079	64 Bn CRPF 9439188056
43.	<b>JNRD</b> 8455892047	Junagarh Govt. Hospital	02 KM	Dr. Bhagaban panda Ph-9437529133	9439980260	Available	108, 102,	7978701902 900 uit	Junagarh P- 06672-243226, 9437125456	64 Bn CRPF 9439188056
44.	<b>SBP</b> 8455892816	District Hospital 0663-2522222 Rly Hospital	03 Km 02 Km	Dr. Kanchan Ray Dr. Kabir Purohit. Dr.S.B.Patel 9439986001 Dr.A.Mahapatra 9439986003	Ph-0663-2520700, 9853343997 0663-2540575	Ambulance Capacity-45 Beds	9439891915, 9439891925	Bharat Vikash Parisad No- 9438386566	Khetrajpur 0663-2544007 9438916563	0663- 2410190 9438878949
45.	<b>JSGR</b> 8455892811	Rly Medical /JSG 080-74100, 74101, 62525, 62526	02 Km, 06 Km,	Dr. Ziaul Huq Dr. A.K Das Dr. A. Sinha Dr.L.Routray 9439986890	9437163854 9437121273 7653821915	Sufficient	108	Dist.HospitalJ SG Ph-06645- 272180 7894056328 6371850830	JSG PH-06645- 272736, 9438180796	SAP Battalion 7978113828 9337280801 7205826710
46.	<b>BXQ</b> 8455892812	Govt. Hospital/JSG 9439986890 9439986886	06 Km	Dr. H.S Dheuri- 9438641986, Dr. P.K Barik Mo- 7008326963 Dr.L.Routray 9439986890	Jain Nursing Home- 06645-272657, 9437254200	Jain-20 beds Govt.-50 Beds	108, 102, 9937543113	Govt. Hospital JSG 9439986890	BUDM- 9438916532 7008442002	OSAP Ph- 06645- 270096
47.	<b>LPG</b> 8455892813	Govt. Hospital 9439986226	08 Km	Dr. A. Naik No- 9437254313 Dr.L.Routray 9439986890	06645-273104	Primary facility available	700896967& 108, 102	0663-2400180	RGL Ph-0663- 2560519, 100	NA
48.	<b>RGL</b> 8455892814	Samaleiswari Nurshing Home 7978693203 Rly Hospital 8455886555	10 Km	Dr. A Naik- 9437254313 Dr.S.N Mohanty 9437198571 Dr.I.D.Adhikari 7008861802	Samaleiswari Nurshing Home 7978693203	Primary Facility	108, 102,	Red cross Blood bank 0663-2400180	RGL Police Station No-0663- 2560519, 100	0663- 2410190
49.	<b>SSN</b> 8455892815	Govt. Hospita l(Debipali) 9937722376	03.5 Km	Dr. J.N Nanda 9437419858 Dr.S.B.Patel 9439986001 Dr.A.Mahapatra 9439986003	9937722376	Primary facility	108,102	----	100	---

	Name of station & CUG of station	Name of nearby hospital/ nursing home	Distance from station	Name of Doctors	Telephone/Mobile No of hospitals Nursing home/Doctors	Facility Available in hospital Nursing Home & beds	Ambulance contact numbers	Telephone of nearest blood Bank with capacity	Nearest police station & contact Nos of In-charge	Contact Nos of paramilitary
50.	<b>SLRA</b> <b>8455892863</b>	Amrit Nurshing Home Majhipali 9437809207 Sanjivani 0663-2404022	05 Km 07 km	Dr. S Naik Dr. Kanchan Ray 0663-2540575 Dr.S.B.Patel 9439986001	Arogyam Hospital 0663-0000943 Dr.A.Mahapatra 9439986003	Primary facility available	108 & 102 9439891915	Ph-0663-2400180	(Aithapali)Police Station Ph-0663-2540092 9438916551	06632410190
51.	<b>HKG</b> <b>8455892817</b>	Govt. Vimsar Medical College, Burla Rly Hospital	04 Km 08 km	Dr. Kabir Purohit 9853343997 Dr.D.Gupta 9437057234 Dr.J.Dora 9437134920	-0663-2430511 0663-2522222 8455886555	Primary facility ICU available	108 9439891915	Red cross Blood Bank- 0663-2400180	Burla Police Station Ph-0663-2430444 7008714708	0663-2410190 9438878949
52.	<b>GBQ</b> <b>8455892818</b>	Burla Govt. Hospital Ph- 0663-2430511	13 Km	Dr. A. Hota Mo-9438385481	S.S Nurshing Home ATS 9090505042	Primary facility	108, 102 9439891915	Red cross B/bank 0663-2400180	GBQ out post 94371158543	0663-2410190 9438878949
53.	<b>ATS</b> <b>8455892819</b>	ATS Gov. hospital	02 Km	Dr. S. C Agrawal 7008079847 Dr.R.Mishra 9439986503	S.S Nurshing Home ATS 9090505042	Primary facility	108, 102	DDH/BRGA 06646-2343140	ATS 9438916492	06646-234480 9438916490
54.	<b>BRPL</b> <b>8455892821</b>	PHC/BRPL	02 Km	Dr. S Behera 9437271836 Dr.N.C Sahu 9861206106	06646-233804 Dr.R.K.Behera 9437271836	Primary facility	108, 102	BRGA Ph- 06646-234104	BRPL P.S Mo- 06646256709	NA06646-234480 9438916490
55.	<b>DJX</b> <b>8455892822</b>	CHC/DJX Sai Hospital	03 Km 40 km	Dr. P.P Panda 8847894478 Dr.D.K.Panda 9439987555	Sai MS Hospital 99379424290	ICU available	108, 102	BRGA Ph- 06646-234104	DJX Police Station - 06653270024	06646-234480 9438916490
56.	<b>KHPL</b> <b>8455892823</b>	PHC, Salebhate Govt, Hospital LSX	02 km 12 km	Dr. P Soren 62495-84706 Dr.A.Barik 6371747961	06653274178 9777771013 06652-230606	Primary facility available	108 06653-274178	06652-230606 Govt. Hospital BLGR	LSX Police station 06653-274030 06653274034	CRPF 06652-250189
57.	<b>LSX</b> <b>8455892824</b>	LSX PHC DHH BLGR	300 mtrs 19 Km	Dr. P Soren 62495-84706	8249584706	-Do-	108 7008905136	7077924096 900 units	LSX, 06653-274030,	CRPF 06652-250189
58.	<b>BRGA</b> <b>8455892820</b>	Govt. Hospital Mission hospital Tora,BRGA,	4.5 Km. 03 Km.	Dr. R.K Sahu 9437101401 Dr. G Agrawal 9437055211	06646-256265 9439982249 Dr.A.K.Patra 9439982249	-Do-	108 9861047629	06646-230203,	BRGA. 100 06646-234480 Sup. Of Police- 9438916490	06646-234480 9438916490
59.	<b>KRAR</b> <b>8455892865</b>	KRAR 06678-221296	1 Km,	Dr. Tejraj Sahu 7008488930 Dr.B.K.Nayak 9937944634	Dr. B.K Bag- 9437702678 07768-221296	-Do-	108, 102,112	LM Bisi NPD 9439989989	KRAR 06678-221203	9078597195
60.	<b>DOBH</b> <b>8455890048</b>	Govt. Hospital ATS 9437258305	05 km 25 km	Dr. R.N Mishra 9439982679 Dr.D.Gupta 9437057234	06646-232804, 06649-256265 9439982249	-Do-	108, 102	DDH/BRGA 06646-2343140	ATS Sri P Bhoi 9438916492	06646-234480 9178544193
61.	<b>BHPI</b> <b>6372900306</b>	CHC, Tarbha DHH, BLGR	08 Km 17 Km	Dr.K.K Mishra Dr. N Sahy	9237119494 9439253305	-Do-	108, 8908477970	7077924096 900 units.	Puintala out poast-700831626	CRPF 06652-250189

SL No.		11	12	13	14	15	16	17	18	19
	Name of station & CUG of station	Nearest Fire station Contact nos	Name & contact nos of NGO/Volunteer organization, including Red Cross	Size of NGO & facility related to Disaster	Nearest Bus depots, contact nos of Manager	Contact nos of Major transport agencies	Contact nos of Agency of earth Moving Equipment suppliers	Name & contact nos of Tahasil & Tahasildar	Name & contact No of District & District Collector	Mobile No of any related to DM
1.	RNBT	TIG-06655-220477, 101	Lion Club 9437036206	Small	-----					
2.	MRBL	TIG-06655220477,	Right to fight 9937193680	Small	MRBL	KBJ 9938433561	Guddu Agrawal 9777087054	MRBL	BLGR 8895768995 06658232232	06652-232232
3.	KBJ	KBJ, 101 7008919353	Right to Fight, 9937193680	Small	KBJ Bus Stand 8658906543	KBJ Truck Association, 9938433561	Agarwal KBJ, 9777087054	A.K Majhi, KBJ 7008544765	BLGR 06652232223	PA to collector 06652232223
4.	HSK	Khoparakhol 94371694641 6370396533	Marwari Manch- 9437016830 9556467467	Small	Lathor Bus Stand- 9658501413	Pintu Agrawal 9938881703	Pintu Agrawal 9938881703	Khoparakhol 7077177189	BLGR A Dakua 8895768995	PA to Collector 06652232232
5.	TRKR	KBJ 0665222353	Right to fight 9937193680	Small	KBJ bus depot 8658906543	Truck association 9938433561	Agrawal, KBJ 9777087054	Katabanji- 7008544755	Bolangir- 06652232223 8895768995	06652232232
6.	BLSN	MSMD, 05 KM 07723-224985	Red Cross. DrMSMD 9425215852	Small	MSMD 9479248786	CG Road line 9921889007	A.B Earthmover MSMD 9926300600	Ravi Mittal, 9424193973	MSMD, Sri S.K jain 9424180751	PA to Collector 8120576006
7.	ANMD	MSMD 07723-222060	NGO forum MSMD 9926122912	Small	ARN	CG Road line 9921889007	A.B Earth Movers 9926300600	N.K Banjara 7566302134	Dr. S.B Dasan 07712426024	PA to collector M Patel 9425213113
8.	MSMD	MSMD 07723-222090	Red Cross MSMD 9425215852 9425215595	Small	MSMD 9479248786	CG Road lines 9926889007	-----	M Chopra 8319964191	D Singh 9977253677 9425280067	DM Steno R.K Pandey 07723222540
9.	ARN	MSMD 07723-224985	MSMD 9425215552	Medium	MSMD Bus Stand (Privet) 9479248786	Chhatisgarh Road line-9926889007	Nirmala Industries 919926780020	M Chopra 8319964191	D Singh 9977253677 9425288067	Patel 07723-222540
10.	BMKJ	BGBR 8770550438 9926748100	Red Cross, MSMD 9425215852	Small	BGBR 8109675101	Maharaja Travel 9926161350	3669799995	M Diwan 9981346981	D Singh 9937253622 7425280067	R.K Pandey DM Steno 8120276006

	Name of station & CUG of station	Nearest Fire station Contact nos	Name & contact nos of NGO/Volunteer organization, including Red Cross	Size of NGO & facility related to Disaster	Nearest Bus depots, contact nos of Manager	Contact nos of Major transport agencies	Contact nos of Agency of earth Moving Equipment suppliers	Name & contact nos of Tahasil & Tahasildar	Name & contact No of District & District Collector	Mobile No of any related to DM
11.	BGBR	BGBR-9926748110 8770550438	Red Cross, MSMD-9425215852	Small	BGBR 8109875101	CG Road lines 9926161350	Sekhar Ch Kar 9669799995	R.M Diwan 9981346981	D. Singh 9977253677	R.K Pandey 8120276006
12.	KMK	KRAR 8270352615	Red Cross, MSMD-9425215852	Small	BGBR 8109875101	CG Road lines 9926161350	Sekhar Ch Kar 9669799995	B. Tamboli 8103534241	D. Singh 9977253677	R.K Pandey 8120276006
13.	NPD	NPD – 9437581408, 101	R.C Patnayak 9437119702	120 members	Bus Stand NPD 8018889683	P Swain-9437117728	R Bhagrati 9777885005	D Rout 8328909859	D. Singh 9977253677	06678-225464, 225463
14.	LKNA	Khariar Road 06678-222353 9437452382	Adarsh 06678-223572 R. K Mishra	Small	NPD	Hemsagar, LKNA 9556763222	N Jain 9178584234	S.K Roy 8328909859	S.D Singh 06678225463 8895985872	PA to collector 06678-225463
15.	SFK	TIG, 06655-220477 06655-252222	Marbari Yuba Manch-9437960459	TIG	SFK Bus stand	-----	-----	TIG 9437276189	C Rana 06652232223	-----
16.	BUDM	BUDM 06655-252222	Rajendra Panigrahi 9853200783	----	BUDM Bus stop	Suresh Ch Sahu BLGR 7978036032	Manu Pati, BLGR 9437224193	SFC S.K Dungdung 707730385	C Rana 06652232223	06652-232223
17.	SFC	Saintala 8280817338	Rajendra Jubak Sangh, BLGR 9853200783	-----	SFC bus stop	Suresh Ch Sahu BLGR 7978036032	Manu Pati, BLGR 9437224193	SFC S.K Dungdung 707730385	C Rana 06652232223	-----
18.	DFR	Deogaon, 06652-284101	7008479316 9937534998	----	BLGR pvt bus stand 8480404728	Truck Association BLGR 9437223347	----	N Sahu 9437418105	C Rana 06652232223	ADM 06652-232943
19.	BLGR	BLGR 101, 06652232333,	Rajendra Yubak Sangh 9853200783	NA	BLGR, Bus Stand-06652-232345	7008706408	9437224143	M Bag	C Rana 06652232223	06652-232020
20.	SBPY	101, SBP-0663-2520101	----	DM 0663-2520926 0663-2532187	Aithapali Bus Stand	Sainath Transport-9861187999	0674-2534177 0674-2323004 2544066	SBP Tahsildar Ph No-0663-2410818	SBP 0663-2411022	0663-2410818
21.	MANE	SBP 0663-2520101	Child Line 1098 9437053896	50 voluner	9437051888 MANE bus stop	9437053311	9437054593	Smt R Nath 9668441303	Subham Saxena 9439779005	ADM/SBP 06632410386
22.	HATB	SBP 06632520101	9437053896	50 volunteers	HATB Bus stop	9437053311	9437054593	Suman Minz 9438339617	Subham Saxena 9439779005	ADM/SBP 06632410386
23.	JUJA	JUJA, 06681-257685,	9437053896	50 volunteers	JUJA bus stop	9437053311	9437054593	Suman Minz 9438339617	Subham Saxena 9439779005	ADM/SBP 06632410386
24.	CHAR	RAIR Ph-06644-253021	Marwari Yuva Manch, 9437806944	20 members	CHAR bus stop	9437399226	9437054593	Smt Rubi Behera 8249895815	9439277733 Subham Saxena	9437145016
25.	RAIR	101, RAIR 06644-253021	Marwari Yuva Manch, 9437806944	20 members	RAIR 9853673784.	9437399226	9437054593	Smt Rubi Behera 8249895815	Collector of SBP Ph-9439277733 Subham Saxena	DM-06263-254222

	Name of station & CUG of station	Nearest Fire station Contact nos	Name & contact nos of NGO/Volunteer organization, including Red Cross	Size of NGO & facility related to Disaster	Nearest Bus depots, contact nos of Manager	Contact nos of Major transport agencies	Contact nos of Agency of earth Moving Equipment suppliers	Name & contact nos of Tahasil & Tahasildar	Name & contact No of District & District Collector	Mobile No of any related to DM
26.	BAMR	BAMR 8763608763	Ashahaya Sahayata Comitee BONA 7008205960	20 members	BAMR Bus stop	9238580953 Sulu Transport agency, ANGL	NALCO ANGL 9437171717	Srilaxmi Prasad Sahu 9777223250	S.S Swain 9438602700	9777223250
27.	SRGP	BAMR, 06763-214022, 9437882410	Ashahaya Sahayata Comitee BONA 7008205960	20 members	SRGP Bus stop	9238580953	9437171717 7008810078	Srilaxmi Prasad Sahu 9777223250	Manoj Kumar 9437315326	06763254222 9439009816
28.	HNP	BAMR Ph- 101, 9437382410 06763-214022	Ashahaya Sahayata Comitee BONA 7008205960	20 members	HNP Bus stand	9238580953	9437171717 7008810078	Srilaxmi Prasad Sahu 9777223250	Manoj Kumar 9437315326	06763254222 9439009816
29.	BONA	BAMR-06763-214022 9437382410	A Sathayata 7008205960	20 members	BONA Bus stop	9238580953	9437171717 7008810078	Srilaxmi Prasad Sahu 9777223250	Manoj Kumar 9437315326	06763254222 9439009816
30.	JRPD	ANGL-06764-230222	Marwari Yuva Manch, 9437013334	100 members Ambulance facility	JRPD Bus stop	9238580953	9437171717 7008810078	D Ekka 9178370181	Manoj Kumar 9437315326	9437228689
31.	TIG	TIG Ph-06655-220477	Marwari Yuva Munch 9437033815 (Sanjeet Kumar) 9776863787	Social Service	General Indian Roadways 9438694877	NA	NA	Anand Panda 9438285619 06655-220480	C Rana 8895768995 06652232223	Nil
32.	KSNG	Ph-06670-223611 7008248547	Brundaban Sanskritika Anusthan Mo- 9437153805	Small	OSRTC 09945889825	9437735467	NA	9438003109 9668313109	06670-230201 06670-230233	9668303456 9668303456
33.	KDLR	KSNG, 101, Ph 06670-223611 7008248547	9178550505 7008516395	Small	9945889825	9437735467	NA	9438003109 9668313109	06670-230201 06670-230233	9668303456 966830456
34.	RPRD	NRLR 7655086973 7653842203	---	---	NRLR Bus Depo 6371554417	8328973844	9937695304	7735641494	06670-230201	06670-230201
35.	NRLR	NRLR 7653842203	0674-240193	NA	OSRTC BWIP	NA	Dinesh Ku Agrawal 7978221044	M R Tripathy 7735641494	Dr. G.P Harshad 06670-230201	NA
36.	AMB	MNGD 8249319754	----	-----	---	---	---	D Goud 9090499102	RGDA 06856222245	SP RGDA 06856222304
37.	LJR	BWIP 06670230666	7978856399 9437419624	NA	BWIP 9658570867	9437210007 8456071476	---	9438263721	9668303456	9438736379
38.	DKLU	MNGD, Ph- 06863-211201, 8249319754	----	----	---	---	---	D Goud 9090499102	RGDA 06856222245	SP RGDA 06856222304
39.	MNGD	MNGD, 8249319754 8917260598	FAAR- 9437013094, Sradha Sethi- 9439545524, Bether P. Sikka- 9437459048	Harsa Trust- 8249058695	MNGD- 06863-245192	ARC-9437324123	-----	Dr. D Goud 9090499102	0685622254 06556222354	---

[illegible]



	Station Name & CUG No	Nearest Fire station Contact nos	Name & contact nos of NGO/Volunteer organization, including Red Cross	Size of NGO & facility related to Disaster	Nearest Bus depots, contact nos of Manager	Contact nos of Major transport agencies	Contact nos of Agency of earth Moving Equipment suppliers	Name & contact nos of Tahasil & Tahasildar	Name & contact No of District & District Collector	Mobile No of any related to DM
56.	KHPL	Agalpur 09078485535	9937933643	NA	BLGR 06652232345	M Mishra 9437150052	958385118	LSX 06653274759	C Rana 06652232223	BLGR 06652232020
57.	LSX	LSX, 09078485535	NA	NA	BLGR 06652-232345	7008706408	9437224143	A.K Mishra 7327976868	C Rana 06652232223	BLGR 06652232020
58.	BRGA	101, 06646-233809	Marbari manch- 9437104482	NA	BRGR Bus Stand- 06646-233123	9437051636	9777339739	Tehsildar - 06646233189	06646232340	06646-234480
59.	KRAR	KRAR 3178647143	Prateeksha NGO 9853110066	Small	KRAR	Jayaram 9777878888	Mr. Day 9668305400	M Sahu 8018173321	S.D Singh 8895985872	PA (Collector) 9178979763
60.	DOBH	06682-221101	9938949644	NA	BRGR Bus Stand- 06646-233123	9090100158	97773399739	06682-220262	J R Pradhan 06646-232340	06646-234480
61.	BHPI	Tarbha 9437330459	Sanjivani 985310844	NA	BLGR, Bus Stand- 7978036032	7008706408	9437224143	M Bag 9439239020	BLGR Chandan Rana 9437023381	SP BLGR 06652232020

## **Annexure – 12**

### **TELEPHONE NOS & DETAILS NDMA/NDRF BATTALIONS**

S.NO.	RANK	PHONE /MOBILE NO.	E-Mail
01	Director General	011-24369278 011-24369280	dg.ndrf@nic.in
02	Inspector General	011-24363268	ig.ndrf@nic.in
03	COMMANDANT (03 BN)	0671-2879710 (O), 9439103170 , 09437964571	bn-4th@cisf.gov.in, ori03-ndrf@nic.in
04	COMMANDANT (10 BN)	9424410138	
05	CMO/SG (10BN)	8333021960	--
06	Asstt.Commandant/ “C” Coy Comdr	9438882009	--
07	Asstt. Commandant/ “B” Coy Comdr	9437964570	--
08	Asstt. Commandant/ “E” Coy Comdr	9437025155	--
09	NDRF Control Room, Mundali,Cuttack.	0671-2879711 9937187222	--
10	03 BN Control Room	9437581614, 9937187222	--

11	RRC/Hyderabad	04023565655	--
12	RRC/Visakhapatnam	8912518380	--
13	RRC/Durg	9437581608	--
14	RRC/Balasore	9437964575	--

**Annexure – 13**

**Satellite telephone over SBP Division**

Sl.No.	Make Model	IMEI No.	SAT-Phone No.	Kept at
01.	Inmarsat Isat	353032044421422	+91 8991123677	ART/SBP
02.	Phone 2- EN	353032044422224	+91 8991123678	Divnl. Control SBP
03.		353032044421556	+91 8991123679	ART/KBJ

**Annexure – 13(A)**

**Crisis Management Group of Medical Team**

Division	S.No	Function Under	Place	Nos
SBP	1.	Divisional Rly Hospital	Sambalpur	01
	2.	Railway Health Units	Bolangir, Kantabanji & Mahasamuda	03
	3.	ARME- I	Sambalpur & Titlagarh	02
	4.	ARME- II	Kantabanji, Mahasamud & Bolangir	03
	5.	Ambulance	Sambalpur	01



STATE GOVT. **EMERGENCY & OSDMA** TELEPHONE NUMBERS

**Telephone No. of the officers & Staff of OSDMA**  
**PABX-0674-2395398/2396901, FAX- 0674-2391871**  
**E-mail: [osdma@osdma.org](mailto:osdma@osdma.org), Website: [www.osdma.org](http://www.osdma.org)**

Sl. No	Designation	Mobile No	OSDMA Ext. No/ PBX No	E-mail ID
1	Managing Director	8763939511	301/3004	md@osdma.org
2	Consultant, ODRP	9438851763		ed@osdma.org
3	Executive Director (Projects)	9437021600	218	edp@osdma.org
4	Chief General Manager (F&A)	9438306345	206/3006	cgmfa@osdma.org
5	General Manager (Mechanical)	9861038374	203	gmmech@osdma.org
6	General Manager (Projects)-iv	9437232998	219	gmp4@osdma.org
7	General Manager (Projects)-V	9437136555	215	gmp5@osdma.org
8	Deputy General Manager (Projects)-I	9438619605	204	dgmp1@osdma.org
9	Deputy General Manager (Projects)-II	9437350547	241	<a href="mailto:dgmp2@osdma.org">dgmp2@osdma.org</a>
10	Chief General Manager-I	9238365495	207/3007	<a href="mailto:cgm1@osdma.org">cgm1@osdma.org</a>
11	Chief General Manager -II	8763354637	239/3011	kamalmishra66@gmail.com
12	General Manager	9437281061		gm@osdma.org
13	Deputy General Manager (T&C)	9437170179	200	prasantanayak26@yahoo.in
14	Accounts officer	9438304082	231	

15	Jr. Accountant	8763294214		
16	Jr. A/C. Assistant	7377355168	209	
17	Accountant	9437377716	229	
18	Jr. Assistant	9438185232	210	
19	Sr. PS to Managing Director	9437411774	208/3004/ 0674-2395531	
20	GIS Expert & Environment Specialist	9437106251	237	bnmishra.osdma@gmail.com
21	System Expert & MIS Specialist	9437106252	217 /233	aray@osdma.org
22	Shelter Coordinator & Social Management Specialist	9437179693	207	krushna.bisoi@gmail.com
23	Engineering Consultant (Water Resources)	9437283139	236	
24	Engineering Consultant (Roads & Buildings)	9937384096	234	
25	Procurement Specialist	9437151949	234	
26	State Project Officer, UNDP	9437089446		
27	City Project Coordinator, UNDP	9438281225	238/3009	

**ODRAF :**

**JSG** - 00645-270096, **BLGR**- 06652-232020, M- 9777135607, Sri P.K Nayak -- 9437170179

## DISASTER RELATED WEBSITES

DISASTER RELATED WEBSITES	
<a href="http://www.eastcoastrailway.gov.in">www.eastcoastrailway.gov.in</a>	East Coast Railway, Bhubaneswar (Disaster Management)
<a href="http://www.imd.ernet.in">www.imd.ernet.in</a>	Indian Metrological Department
<a href="http://www.imd.gov.in">www.imd.gov.in</a>	Indian Metrological Department
<a href="http://www.ncmrwf.gov.in">www.ncmrwf.gov.in</a>	National Centre for Medium Range Weather Forecast department.
<a href="http://www.metocph.nmci.navy.mil">http://www.metocph.nmci.navy.mil</a>	United State Navy
<a href="http://www.sal.dundee.ac.uk">www.sal.dundee.ac.uk</a>	Dundee satellite Receiving Station
<a href="http://www.herricanealley.net">www.herricanealley.net</a>	Information about tropical cyclone
<a href="http://www.usgs.gov">www.usgs.gov</a>	United States Geological Survey
<a href="http://www.w3.weather.com/safeside">www.w3.weather.com/safeside</a>	Weather Safety Tips

<a href="http://www.disasternews.net">www.disasternews.net</a>	Disaster Related News Service
<a href="http://www.orissawater.com">www.orissawater.com</a>	Water resources Department.
<a href="http://www.osdma.org">www.osdma.org</a>	Orissa Disaster Mitigation Authority
<a href="http://www.orissagov.nic.in">www.orissagov.nic.in</a>	Web site of Government of Orissa
<a href="http://www.ndma.gov.in">www.ndma.gov.in</a>	Website of National Disaster Management Authority
<a href="http://www.nidm.net">www.nidm.net</a>	Website of National Institute of Disaster Management.
<a href="http://www.idrn.gov.in">www.idrn.gov.in</a>	Website of Indian Disaster Resource Network.
<a href="http://www.usgs.georell.cos.com">www.usgs.georell.cos.com</a>	Website of USGS Data Base
<a href="http://www.earthquakenews.com">www.earthquakenews.com</a>	Earthquake Related Information From World News Services.
<a href="http://www.eqnet.org">www.eqnet.org</a>	Earthquake Related Information
<a href="http://www.gisdevelopment.net">www.gisdevelopment.net</a>	Application of GIS in Disaster Management.
<a href="http://www.fema.gov">www.fema.gov</a>	Federal Emergency Management Agency.
<a href="http://www.redcross.org">www.redcross.org</a>	Website of Red Cross
<a href="http://www.esri.com/hazards">www.esri.com/hazards</a>	Website of Disaster and GIS Related Information.
<a href="http://www.nemaweb.org">www.nemaweb.org</a>	Website of National Emergency Management Association of US.
<a href="http://www.laem.com">www.laem.com</a>	Website of International Association of Emergency Management.
<a href="http://www.niusr.org">www.niusr.org</a>	Website of National Institute for Urban Search and Rescue.
<a href="http://www.mipt.org">www.mipt.org</a>	Website of National Memorial Institute for the Prevention of Terroism
<a href="http://www.ifrc.org">www.ifrc.org</a>	Website of International Federation of Red Cross.
<a href="http://www.Emergency-management.net">www. Emergency-management.net</a>	Website of Information about Emergency Planning and Response
<a href="http://www.undo.org">www.undo.org</a>	Website of United Nations Development Programme.
<a href="http://www.nrsa.gov.in">www.nrsa.gov.in</a>	Website of National Remote Sensing Agency.

**Telephone Numbers of GRP officials:-****ODISHA**

Designation	Railway		P&T			Mobile No./ CUG
	Off.	Res.	STD	Number	Item	
IGP/Rlys/Cuttack, ODISHA	74510	74511	0671	2306615 2306615	Office Fax	9438915982
SRP/Rourkela	76410		0661	2600216	Office	9438916900
DSRP/Jharsuguda	76041		06645	271801		9437223262
IIC/Sambalpur	62329	62487	0663	2521961		9437407117
OIC/Bolangir	64354	64326	06652	234789		9438916901
OIC/Titilagarh	68354	68355	06655	220491		9438207348
OIC/OP/Kantabanji	67254	67255	06657	220367		9439789180
DSRP/Rayagada	85612	85613	06856	223744	Office	9437720829
IIC/Rayagada	85618	85619	06856	222005		9437382303
ASI/OP/Muniguda						7978727609
OIC/Koraput	86394		06852	252046	Office	9668060790

**CHHATTISGARH**

			Code	P&T		Mob/CUG
SRP/Raipur			0771	2886000	Office	9479191500
				2889000	Control	
DSRP/Raipur				2880003		09479191501
IIC/Raipur						09827400714

**Telephone Numbers of RPF officials SBP Division.**

S.L.	Designation	RlyAuto /Off	Res	P&T Phone	CUG phone	Intcom
1.	Sr.DSC/RPF/SBP	085-62436	62437	0663- 2402174(O) 0663-2402875	8455886700	-
2.	ASC/RPF/SBP	085-62624	62625	-	8455886701	-
3.	RPF Post/ SBP	085-62222	62223	0663-2400903	8455886705	62
4.	RPF/Post/RAIR	085-63250	-	06644-253239	8455881021	23
5.	RPF/Post/BLGR	085-64253	64251	06652-230669	8455886707	33
6.	RPF/Post/TIG	085-68352	68353	06655-221934	8455886708	47
7.	RPF/Post/KBJ	085-67252	-	06657-221467	8455886706	23
8.	RPF/Post/MSMD	085-68454	-	07723-224778	9752410126	33
9.	RPF/Out /Post/ BXQ	085-62769	-	06645-214552	8455886725	19
10.	RPF/Post/BRGA	085-62636	-	06646-233122	8455886715	11
11.	RPF/Out/Post/BWIP (Bhabani patna)		-		9437089569	10
12.	RPF/Post/MNGD	085-68452	-	06863-245875	8455886716	14

13.	RPF TE/Coy/SBP	085-62448	-		8455886713	48
14.	Crime Reader /SBP	085-62372			8455886712	04
15.	SIB/Unit/SBP	085-62396		0663-2522085	8455886711	04
16.	SIB/UNIT/TIG	085-68449		06655-220175	8455886778	04
17.	DI/CIB/SBP	085-62592			8455886710	06
18.	DQM/SBP	085-62370			8455886729	04
19.	DOG SQUARD	085-62722			08093659171	03
20.	SCNL/SBP	085-62471, 085-62630		0663-2521179	8455886777	--

### **Annexure -19**

#### **Telephone Numbers of SP/SRP/DIG/RDC Under the jurisdiction of SAMBALPUR Division**

Sl.No	Designation/Distric	Telephone No.			Cell No.
		STD Code	Office	Fax	
SP					
01	SP/Sambalpur	0663	2411022	2412116	9438035100
02	SP/Bargarh	06646	234480	233150	8895046814
03	SP/Balangir	06652	232020	232375	9437962200
04	SP/Kalahandi	06670	233111	232333	8763294346 7682833100
05	SP/Nawapada	06678	225478	225006	8895944944
06	SP/Rayagada	06856	222304	222218	8763865027
07	SP/Jharsugada	06645	270808	270888	7077043444
08	SP/Subarnapur	06654	220349	220515	9437188399
09	SP/Angul	06764	230316	236657	9437170073
10	SP/Mahasamund	07723	223500	223495	09479192300
11	SP/Raipur	0771	2285004	4265667	09479191001
12	SP/Rourkela	0661	2500020	2500261	8280040700
SRP					
01	SRP/Rourkela	0661	2600216	----	9437083559
DIG					
01	DIG/(NR),SBP	0663	2412016	2410551	9437011113
02	DIG/(NCR),ANGL,TLHR	06760	241395	242935	9437936444
03	DIG/Koraput	06852	251711	--	8895699903
RDC					
01	RDC/(ND) Sambalpur	0663	2411646	2411537	9437025805

HIRING OF HELICOPTER/AEROPLANE/ROAD VEHICLES FOR RESCUE OPERATION  
GOVERNMENT OF INDIA (BHARAT SARKAR)  
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)  
(RAILWAY BOARD)

NO. 2002/Safety-1/6/6

New Delhi, date: 13.06.2004

General Managers, All Indian Railways.

**Sub :** Empowering Zonal Railways to requisition helicopter/aero plane at the time of severe accident.

**Ref :** Board's letter No. 86/Safety-1/24/47 Dt.13.03.87 & 19.07.89.

Zonal Railways have been delegated power to requisition helicopter/aero plane for expeditious action in the event of serious accident vide railway Board's letter reference. The subject matter has been reviewed by the Board and the following revised powers are delegated to the Zonal Railways.

1. GMs/DRMs have been delegated the powers to requisition helicopter/aero plane to reach the site of serious accident for rescue operation expeditiously. In addition, powers are also delegated to requisition air support to dispatch the rescue teams to the site of the accident.

It is difficult to stipulate exactly the circumstances under which they may exercise these powers. It has been decided to leave this to the discretion of GMs/DRMs. However, broadly these may cover the following type of cases:

- a. Where more than 10 casualties (death-cum-serious injuries) are feared and it is difficult for these officers to reach the site within reasonable time.
- b. 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.).
- c. Where public reaction in case of late arrival of senior officers at site is likely to be highly adverse.

Normally, in case of an accident only one helicopter should be requisitioned by a Zonal railway, except when there is a serious passenger train accident involving several casualties when it is essential for both the general Manager and the Divisional Railway Manager to reach the site at once to satisfy the public and the press. However, for dispatching the rescue teams to the site of the accident, separate helicopter/ aeroplane may be requisitioned, if so needed.

The GMs/DRMs may exercise the above powers personally and may not delegate these powers.

2. Zonal Railways are further empowered to requisition helicopter/ aeroplane to evacuate injured and dead in the event of serious accident. GMs may personally exercise these powers and may not delegate these further.

The above instructions on the subject supersede all the previous instructions issued vide above referred letters.

This issue with the concurrence of the Finance Directorate of the Ministry of Railways.

Sd/-  
(Amitabh)  
(Director, Safety III)/  
Railway Board.

**CLEARANCE BY STATE POLICE IN CASE OF RAILWAY ACCIDENTS DUE TO CASE OF SUSPECTED SABOTAGE**

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

Rail Bhavan,  
New Delhi- 110001.  
No.2002/Sec.(Cr.)/45/47  
March,27, 2003.

The General Managers

Sub : Clearance by State Police in case of railway accidents due to suspected sabotage.

Ref : Ministry of Home affairs' letter No. VI-24022/11/2002-PM-I. dt.24-12-2002 addressed to Home Secretaries of all States (copy enclosed).

\*\*\*

1. The issue of expeditious clearance by the State Policy in case of Railway accidents, where sabotage is suspected, has been engaging Ministry of Railways (Railway Board)'s attention for a long time. It is noticed that sometimes rescue operations are hampered due to delayed and reluctant clearance by the State Police.
2. It is pertinent to mention that there are two different tasks to be accomplished on war footing after a railway accident involving human lives is concerned i.e. (a) Quick Rescue Operation; and (b) Restoration of Rail Traffic. It is clarified that incase of railway accidents, permission of the State Government or clearance of the police is not required for launching rescue operations for the purpose of saving human lives which inter alia may also involve handing/shifting the rolling stock (locomotives, wagons and coaches) for extricating the trapped passengers. However, police clearance is required for restoration works at the site of accident, if sabotage is suspected.
3. To avoid any delay in launching the rescue operations for saving as many human lives as possible and for early restoration of rail traffic, the above issue has been taken up with the Ministry or Home Affairs. Consequently, Ministry of Home Affairs vide their letter ibid have directed the Home Secretaries of all States to issue suitable instructions to the concerned authorities for taking prompt action and to expedite clearance certificate in the event of a rail accident, when sabotage is suspected.
4. The contents of this letter may be widely published among the railway officers/staff and displayed in all ARTs/ARMs so that a general awareness created amongst all those engaged in rescue activities.
5. This letter supersedes the Railway Board's letter of even number dt.7.2.2003.

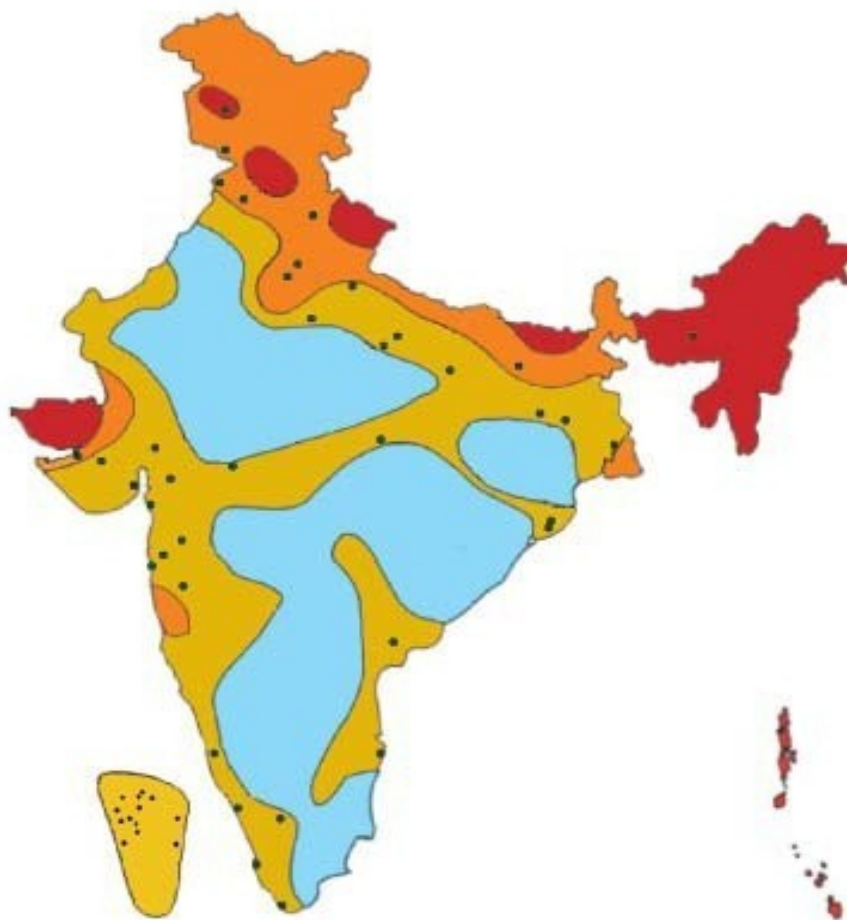
Sd/-

(ATUL PATHAK),  
Director/ Crime Prevention,  
Railway Board.



**REGION FALLING IN VARIOUS ZONES OF THE COUNTRY**

Zone	Damage risk and Intensity	Region
Zone V	Earthquake - Very high damage risk zone - areas may expect intensity maximum of <i>MSK IX or more</i> and Magnitude of 8 and greater (on Richter Scale)	The entire North-east, including all the entire seven sister states, the Kutch district, parts of Himachal and Jammu & Kashmir, and the Andaman and Nicobar islands. These areas may experience
Zone IV	Earthquake – High damage risk zone - areas may expect intensity maximum of <i>MSK VIII</i> and Magnitude of 7 - 7.9 (on Richter Scale)	Parts of the Northern belt starting from Jammu and Kashmir to Himachal Pradesh. Also including Delhi and parts of Haryana. The Koyna region of Maharashtra is also in this zone.
Zone III	Earthquake – Moderate damage risk zone - areas may expect intensity maximum of <i>MSK VII</i> and Magnitude of 5 - 6.9 (on Richter Scale)	A large part of the country stretching from the North including some parts of Rajasthan to the South through the Konkan coast, and also the Eastern parts of the country.
Zone II	Earthquake – Low damage risk zone - areas may experience intensity <i>MSK VI</i> and up to Magnitude 4.9 (on Richter Scale)	These two zones (Zone - I & II) are contiguous, covering parts of Karnataka, Andhra Pradesh, Orissa, Madhya Pradesh, and Rajasthan, known as low damage risk earthquake zones.



Recent Map indicating Earthquakes Zones in India (IS 1893 – 2002)

**CLASSIFICATION OF FIRES AS PER ISI 2190/1979****1. Class 'A' Fires**

Fire involving combustible material such as wood, paper, cloth, rubber, plastic requiring the heat absorbing effects of water, water solutions.

**2. Class 'B' Fires**

This type of fire involves flammable or combustible liquids greases, petroleum products and similar materials for extinction, a blanketing effect is essential.

**3. Class 'C' Fires**

Which involves flammable gases, substance under pressure including liquified gasses. Here it is necessary to dilute the burning gasses at very fast rate with an inert gas, Dry chemical powder or CO<sub>2</sub>.

**4. Class 'D' Fires**

Fire involving combustible metals such as Sodium, magnesium, zinc, potassium. These burning metal react with water and water containing agent. These fires require special media to extinguish such as carbon-di-oxide special dry chemical powder.

**Utility of commonly used fire extinguishers is given below.**

Sr No	Types of Fire Extinguishers	Class of Fire			
		A	B	C	D
1	Water (Gas Cartridge)	S	NS	NS	NS
2	Water (Stored Pressure)	S	NS	NS	NS
3	Mechanical Foam	U	S	NS	NS*
4	Dry Chemical Powder (Gas Cartridge)	U	S	S	NS
5	Dry Chemical Powder (Metal type)	S	S	S	NS
6	Carbon – Di - Oxide	U	S	S	NS
7	Halon	U	S	S	NS

[ **S**: Suitable ; **NS**: Not suitable ; **U** : Can be used in case of emergency but not effective. ; **\*** : Special dry powder can be used. ]

**Government of India**  
**Ministry of Health & Family Welfare**  
**Directorate General of Health Services**  
**(EMR Division)**

**Guidelines on preventive measures to contain spread of COVID-19 in workplace settings**

**1. Background**

Offices and other workplaces are relatively close setting, with shared spaces like (corridors, elevators & stairs, parking places, cafeteria, meeting rooms and conference halls etc.) and thus COVID-19 infection can spread relatively fast among officials, staffs and visitors.

Thus there is a need to prevent importation of infection in workplace settings and to respond in a timely and effective manner in case suspect case of COVID-19 is detected in these settings, so as to limit the spread of infection.

**2. Scope**

This document outlines the preventive and response measures to be observed to contain the spread of COVID-19 in workplace settings. The document is divided into the following subsections

- (i) basic preventive measures to be followed at all times
- (ii) measures specific to offices
- (iii) measures to be taken on occurrence of case(s)
- (iv) disinfection procedures to be implemented in case of occurrence of suspect/confirmed case.

**3. Basic preventive measures**

The basic preventive measures include simple public health measures that are to be followed to reduce the risk of infection with COVID-19. These measures need to be observed by all (employees and visitors) at all times. These include:

- i. Physical distancing of at least one meter to be followed at all times.
- ii. Use of face covers/masks to be mandatory.
- iii. Practice frequent hand washing (for at least 40-60 seconds) even when hands are not visibly dirty and use of alcohol based hand sanitizers (for at least 20 seconds).
- iv. Respiratory etiquettes to be strictly followed. This involves strict practice of covering one's mouth and nose while coughing/sneezing with a tissue/handkerchief/flexed elbow and disposing off used tissues properly.
- v. Self-monitoring of health by all and reporting any illness at the earliest

**4. Preventive measures for offices:**

Guidelines with respect to preventive measures specific to offices have been issued by DoPT. These guidelines are available at: <https://www.mohfw.gov.in/pdf/PreventivemeasuresDOPT.pdf>.

Any staff reportedly suffering from flu-like illness should not attend office and seek medical advice from local health authorities [e.g. CGHS wellness center, medical attendance under CS (MA) etc.]. Such persons, if diagnosed as a suspect/confirmed case of COVID-19 should immediately inform the office authorities. Any staff requesting home quarantine based on the containment zone activities in their residential areas should be permitted to work from home. DoPT guidelines with respect to organizing meetings, coordinating visitors shall be scrupulously followed.

**5. Measures to be taken on occurrence of case(s):**

Despite taking the above measures, the occurrence of cases among the employees working in the office cannot be ruled out. The following measures will be taken in such circumstances:

When one or few person(s) who share a room/close office space is/are found to be suffering from symptoms suggestive of COVID-19:

Place the ill person in a room or area where they are isolated from others at the workplace. Provide a mask/face cover till such time he/she is examined by a doctor.

Report to concerned central/state health authorities. Helpline 1075 will be immediately informed.

A risk assessment will be undertaken by the designated public health authority (district RRT/treating physician) and accordingly further advice shall be made regarding management of case, his/her contacts and need for disinfection.

The suspect case if reporting very mild / mild symptoms on assessment by the health authorities would be placed under home isolation, subject to fulfilment of criteria laid down in MoHFW guidelines (available at: <https://www.mohfw.gov.in/pdf/RevisedguidelinesforHomeIsolationofverymildpresymptomaticCOVID19cases10May2020.pdf>)

Suspect case, if assessed by health authorities as moderate to severe, he/she will follow guidelines at: <https://www.mohfw.gov.in/pdf/FinalGuidanceonMangaementofCovidcasesversion2.pdf>.

The rapid response team of the concerned district shall be requisitioned and will undertake the listing of contacts.

The necessary actions for contact tracing and disinfection of work place will start once the report of the patient is received as positive. The report will be expedited for this purpose.

If there are large numbers of contacts from a pre-symptomatic/asymptomatic case, there could be a possibility of a cluster emerging in workplace setting. Due to the close environment in workplace settings this could even be a large cluster (>15 cases). The essential principles of risk assessment, isolation, and quarantine of contacts, case referral and management will remain the same. However, the scale of arrangements will be higher.

Management of contacts: The contacts will be categorised into high and low risk contacts by the District RRT as detailed in the Annexure I. The high risk exposure contacts shall be quarantined for 14 days. They will follow the guidelines on home quarantine (available on: <https://www.mohfw.gov.in/pdf/Guidelinesforhomequarantine.pdf>). These persons shall undergo testing as per ICMR protocol (available at: <https://www.mohfw.gov.in/pdf/Revisedtestingguidelines.pdf>). The low risk exposure contacts shall continue to work and closely monitor their health for next 14 days.

## 6. Closure of workplace

If there are one or two cases reported, the disinfection procedure will be limited to places/areas visited by the patient in past 48 hrs. **There is no need to close the entire office building/halt work in other areas of the office** and work can be resumed after disinfection as per laid down protocol (see para 7).

However, if there is a larger outbreak, the entire building will have to be closed for 48 hours after thorough disinfection. All the staff will work from home, till the building is adequately disinfected and is declared fit for re-occupation.

## 7. Disinfection Procedures in Offices

Detailed guidelines on the disinfection procedures in offices have already been issued by the MOHFW and are available on: <https://www.mohfw.gov.in/pdf/Guidelinesondisinfectionofcommonpublicplacesincludingoffices.pdf>.

## Risk profiling of contacts

Contacts are persons who have been exposed to a confirmed case anytime between 2 days prior to onset of symptoms (in the positive case) and the date of isolation (or maximum 14 days after the symptom onset in the case).

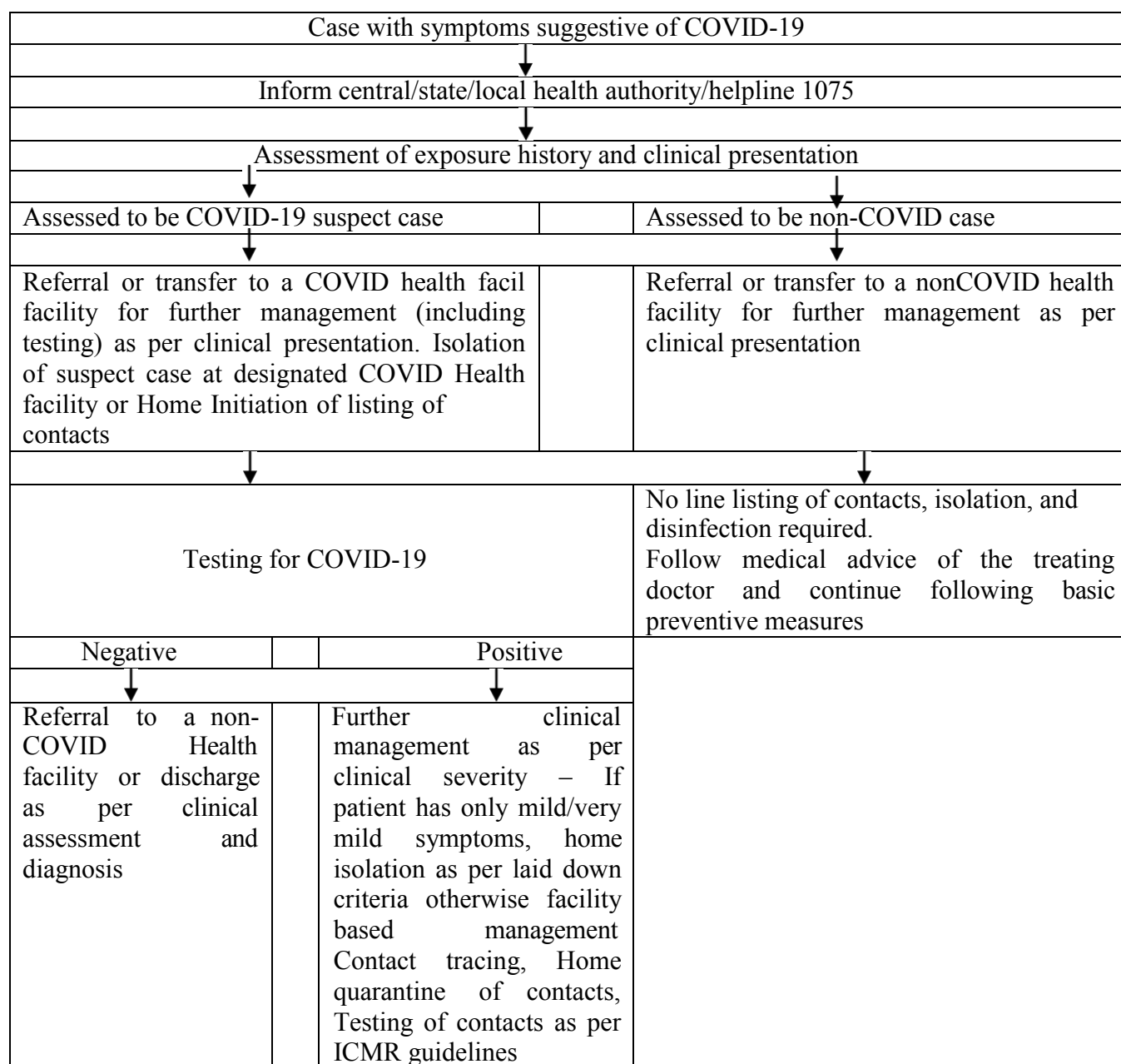
#### High-risk contact

- Touched body fluids of the patient (respiratory tract secretions, blood, vomit, saliva, urine, faeces; e.g. being coughed on, touching used paper tissues with a bare hand)
- Had direct physical contact with the body of the patient including physical examination without PPE
- Touched or cleaned the linens, clothes, or dishes of the patient.
- Lives in the same household as the patient.
- Anyone in close proximity (within 1 meter) of the confirmed case without precautions.
- Passengers in close proximity (within 1 meter) in a conveyance with a symptomatic person who later tested positive for COVID-19 for more than 6 hours.

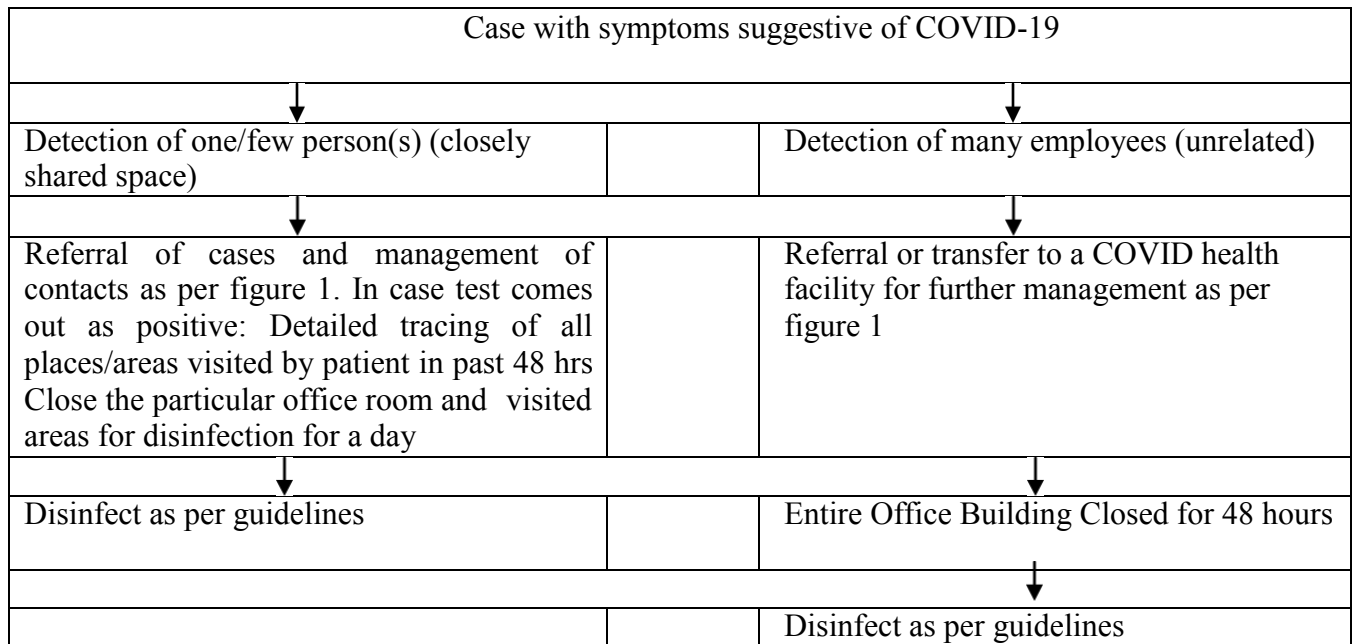
#### Low-risk contact

- Shared the same space (worked in same room/similar) but not having a high-risk exposure to confirmed case of COVID-19.
- Travelled in same environment (bus/train/flight/any mode of transit) but not having a high-risk exposure.

**Figure 1: Management of the case(s) and contacts**



**Fig-2: Disinfection of workplace**



**Disclaimer**

This information provided in this document is for the purpose of general guidance. Although, all efforts have been made to ensure authenticity and accuracy, in case of any conflict the provision in GR&SR / Accident manual and other relevant code would over ride.

\* \* \*



<b>RAILWAY ACCIDENT INFORMATION</b>	<b>-1072 (Toll Free)</b>
<b>STATE EMERGENCY OPERATION CENTRE</b>	<b>-1070 (Toll Free)</b>
<b>DISTRICT EMERGENCY OPERATION CENTRE</b>	<b>-1077 (Toll Free)</b>
<b>POLICE STATION</b>	<b>-100 (Toll Free)</b>
<b>AMBULANCE</b>	<b>-108 (Toll Free)</b>
<b>FIRE STATION</b>	<b>-101 (Toll Free)</b>
<b>SAFETY ORGANISATION, SAMBALPUR</b>	