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# दक्षिण पूर्व मध्य रेलवे SOUTH EAST CENTRAL RAILWAY



## क्षेत्रीय आपदा प्रबंधन योजना बिलासपुर

## ZONAL DISASTER MANAGEMENT PLAN BILASPUR

**JANUARY 2017**

Part - I





## FOREWORD

I am pleased to note that Safety Department is bringing out new edition of the Zonal Disaster Management Plan of South East Central Railway.


Till promulgation of Disaster Management (DM) Act in 2005 a disaster on the Railway meant a serious train accident only. With the promulgation of this Act the scope of Disaster management has been widened to include man-made disaster like terrorism along with other natural calamities like earthquake, flood, etc. Arising out of this Act, Government of India has formed a National Crisis Management Committee (NCMC), which has Member Staff, Railway Board as one of its member. Central Management Groups (CMG's) have been formed in each Ministry, including Railway Ministry, under NCMC. An Integrated Operation Centre (IOC) has been opened in the Ministry of Home Affairs (MHA) to handle disasters.

Disaster Management Plan of South East Central Railway has been prepared as per provisions of Disaster Management Act 2005. It gives step by step guidelines to respond to any disaster right from getting the first information through the whole process of rescue and relief up to dealing with its aftermath.

South East Central Railway has maintained close liaison with National Disaster Response Force (NDRF), Cuttack which works under National Disaster Management Authority (NDMA). I am happy to note that a brief on the capabilities available with NDRF has been included in this publication which can be used by the Divisions and Headquarters.

The train crew, TTEs, RPF and other frontline Railway staff should work like a Instant Action Team (IAT) during any accident to rescue the passengers to provide well needed First-Aid to the injured in the "Golden Hours" before they are handed over to the doctors and para-medical staff. Training of our front line staff in "First-Aid" can save several lives and reduce the suffering of the injured.

I would like all the Officers and staff of this Railway to go through the instructions contained in this updated edition of Zonal Disaster Management Plan and be Prepared to face any disaster.

  
**(Satyender Kumar)**  
**General Manager**  
**South East Central Railway**





## **PREFACE**

The Zonal Disaster Management Plan of South East Central Railway has been prepared as per Railway Board's guidelines to enable the Railway to muster resources, including those of the adjacent divisions and zone and also of Government and Non-Government organizations in the event of a disaster.

The Disaster Management Plan is a step away from the Accident Manual as it attempts to increase the strategic response capability of SECR, in terms of both its robustness and its speed of response with accuracy. This document helps disaster management practitioners in development of policy and strategy to meet unforeseen disasters threatening human life and property. It explores the power of scenario planning and brings about significant change in the preparedness to meet such eventualities.

Success of such plan depends largely on the keenness & efficacy of the team members. PHODs & Training managers should pay special attention to honing of necessary skills. Disaster Management Plan has been prepared in two parts viz- Part-I and Part-II. Officers and staff connected with train operation, who are in possession of these copies are requested to go through the plan carefully and keep it at a location where it can be referred to, at short notice, so that relief arrangements are prompt during any Accident or Disaster.

The Zonal Disaster Management Plan should be read in conjunction with General & Subsidiary Rules, Accident Manual and other instructions issued from time to time.

A handwritten signature in black ink, appearing to be 'D.L. Kamble', written in a cursive style.

**(D.L. Kamble)**  
**Chief Safety Officer**  
**South East Central Railway**



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**CHAPTER – 1****DISASTER AND TRAIN ACCIDENTS****Introduction:****Salient Features of the Disaster Management Act, 2005**

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

Focus of Disaster Management practices has shifted from relief and rescue centric to prevention, mitigation, preparedness and capacity building. It has shifted from departmental to multicultural endeavour and it has become synergy of national capacity and people's participation.

**Definition of a Disaster on Railways:**

Based on the definition of the Disaster Management Act 2005, Ministry of Railways has adopted the following definition of Railway Disaster:

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

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

**Hence Railway Board has approved to nominate GMs, AGMs or CSOs (when GM/AGM is not available) for declaring an untoward incident as a Railway Disaster in their Zonal levels.**

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

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

First four points have to be dealt with service department before any accident is taking place and last four points have to be dealt with jointly by all departments in control

organization and all officers in the Divisions. Help from Government, non-Government and private organization may be taken.

### **Disaster Management Plan**

Disaster Management Plan is a comprehensive document and includes all line of actions to be initiated well in advance of disasters and during disasters and after disaster. This plan has to be actualized during course of time to achieve the goal of prevention, mitigation, preparedness, relief and rescue operation in efficient and effective manner to help the affected people of the area.

The plans of the Zonal railway should detail for all types of disasters, and action to be taken for prevention, mitigation and preparedness measures by the railway and also the rescue, relief and restoration systems in place to meet with them. Organized and systematic plan will result in accurate and speedy response.

### **Types of Disasters**

**Railway Board have identified four types of Disasters, these are as follow:**

- (a) **Natural Disaster:-**  
Earthquakes, floods, Cyclones, Land Slides and Tsunami etc.
- (b) **Train Accident related Disaster**  
Collisions (with a huge number of casualties), Train marooned (flash Floods), Derailments at a bridge over a river, and coaches falling down; train washed away in cyclone, derailment of a train carrying explosives or highly inflammable material, tunnel collapse on a train, fire or explosions in trains, and other miscellaneous cases etc.
- (c) **Manmade Disasters**  
Acts of Terrorism and sabotage, i.e. causing deliberate loss of life and/or damage to property, which includes:-  
Setting fire to a train, Railway installations etc., bomb blast at Railway Station/Train, chemical (terrorism) disaster, Biological and nuclear disaster.
- (d) **Chemical Disaster**  
Indian Railway's Rules for carrying dangerous (hazardous goods) by rail have been legislated in the Railway Red Tariff Rule 2000 as per which dangerous goods have been classified into 8 classes:

### **Important Provisions in the DM Act, 2005 Concerning Railways:**

#### **Section 35:**

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

- a) Coordination of actions of the Ministries or departments of the Government of India, State Governments, National Authority, State Authorities, governmental and non-governmental organizations in relation to disaster management.



- b) Ensure the integration of measures for prevention of disasters and mitigation by Ministries or departments of the Government of India into their development plans and projects.
- c) Ensure appropriate allocation of funds for prevention of disaster, mitigation, capacity building and preparedness by the Ministries or Departments of the Government of India.
- d) Ensure that the ministries or departments of the government of India take necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster.
- e) Cooperation and assistance to the state governments, as requested by them.
- f) Deployment of naval, military, air forces and other armed forces of the Union or any other civilian personnel as may be required for the purposes of this Act.

**Section 36:**

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

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

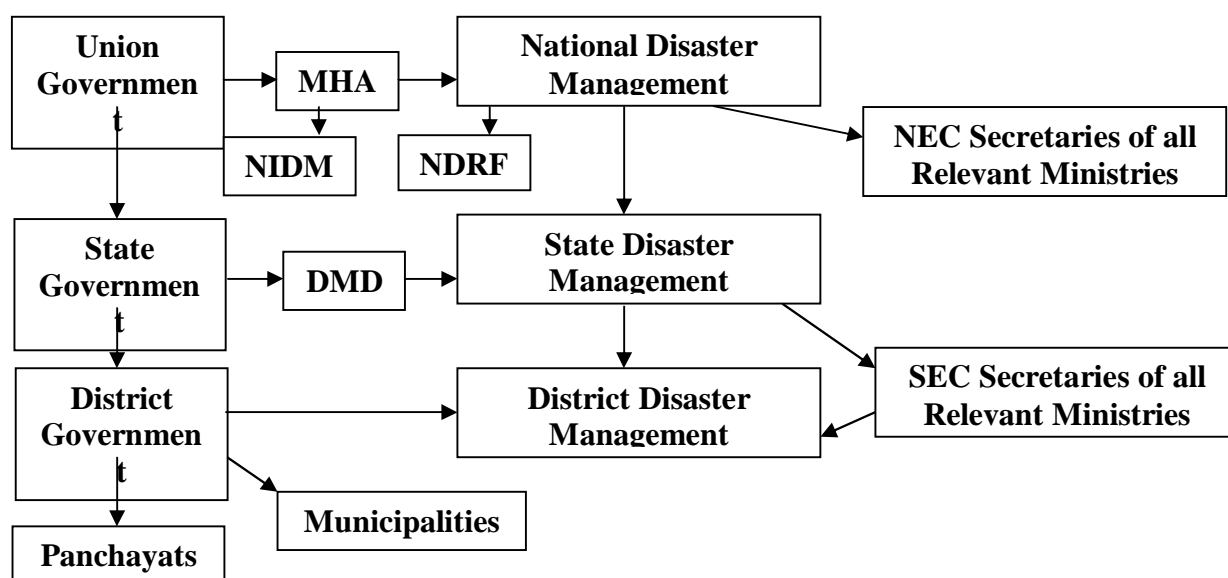
**Section 37:**

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

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

- i) The measures to be taken by it for prevention and mitigation of disasters in accordance with the National Plan;
  - ii) The specification regarding integration of mitigation measures in its development plans in accordance with the guidelines of the National Authority and the National Executive Committee;
  - iii) Its roles and responsibilities in relation to preparedness and capacity-building to deal with any threatening disaster situation or disaster;
  - iv) Its roles and responsibilities in regard to promptly and effectively responding to any threatening disaster situation or disaster;
  - v) The present status of its preparedness to perform the roles and responsibilities specified in sub-clauses (iii) and (iv);
  - vi) The measures required to be taken in order to enable it to perform its responsibilities specified in sub-clauses (iii) to (iv).
- b) Review and update annually the plan referred to in clauses (a);
- c) Forward a copy of the plan referred to in clauses (a) or clauses (b), as the case may be, to the Central Government which Government shall forward a copy thereof to the National Authority for its approval.
2. Every Ministry or Department of the Government of India shall –
- a) Make, while preparing disaster management plan under clauses (a) of sub section (1), provisions for financing the activities specified therein;
  - b) Furnish a status report regarding the implementation of the plan referred to in clauses (a) of sub-section (1) to the National Authority, as and when required by it.

**INSTITUTIONAL FRAMEWORK  
UNDER THE DISASTER MANAGEMENT ACT, 2005**



(MHA-Ministry of Home Affairs, NIDM-National Institute of Disaster Management, NDRF-National Disaster Response Force, DMD-Disaster Management Department, NEC- National Executive Committee)

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

**CHAPTER – 2****PREPAREDNESS FOR DISASTER****DISASTER PREPAREDNESS – AVAILABILITY OF RESOURCES**

Disaster preparedness includes all of the activities those are carried out prior to the advance notice of a catastrophe in order to facilitate the use of available resources, relief and rehabilitation in the best possible fashion. It starts at local level, its resources are insufficient and it would branch out at National level and if needed the International level. Government, non-Government and private cooperation is organized to save lives and properties of affected people.

**The following resources are available for preparedness to promptly and effectively respond to any threatening Disaster in Zonal Railway SECR.**

**1. (a) 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) Portable Telephones, Fire Extinguishers in Brake Van.
- iv) Portable Telephones in Locomotives.
- v) Walkie-Talkie with Guard and Driver.
- vi) Cell Phones/Mobile communications with Passengers.
- vii) Information collected by Train Superintendent/Traveling Ticket Examiner about Medical Practitioner traveling on the train.
- viii) Information collected by TS/TTE about Railway Officers traveling on the train.
- ix) Railway staff traveling on the train-either on duty or on leave as passengers.
- x) Passengers traveling on the train who volunteer their help for rescue and relief work.

**(b) Non-railway resources available nearby:**

- i) Volunteers from nearby villages and town.
- ii) Transport facilities available at site or passing through nearby LC Gates.
- iii) Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.
- iv) Station staff and local railway administration should requisition help from non – railway sources before railway own rescue team arrives.
- v) Such local networks are most effective in rushing assistance immediately, especially with regard to :
  - Medical succor,
  - Additional manpower,
  - rescue equipment,
  - lighting arrangements,
  - transport services,
  - Fire fighting tools etc.

**(c) Railway resources available nearby:**

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

**At adjoining Stations:**

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

**GEOGRAPHICAL INFORMATION SYSTEM (GIS)**

Data Bank is available in the SECR GIS in the computer of Disaster Management Room. All the necessary information such as the phone numbers of all stations of SECR including the numbers of Police station, SP, Collector, Hospitals, Blood Banks, Road Cranes, Airport/Helipad, NGOs etc. to effectively respond to the disaster or any train accident within fraction a minute by click the mouse.

**LIST OF ART/CRANE IN SECR TO DEAL THE DISASTER/ACCIDENTS**

Division	S. No.	Location	Location Code	Type of ART	Gauge
BSP	1	Bilaspur	BSP	A	BG
	2	Shahdol	SDL	B	BG
	3	Korba	KRBA	B	BG
	4	Brajrajnagar	BRJN	Tool van	BG
	5	Manendragarh	MDGR	Tool van	BG
R	5	Bhilai	BIA	A	BG
	6	Bhilai	BIA	Mobile BD Truck	BG/NG
NGP	7	Gondia	G	A	BG
	8	Itwari	ITR	B	BG
	9	Motibagh	MIB	Mobile BD Truck	NG/BG

**List of ARMVs in SECR.**

Division	S. No.	Location	Location code	Type of ARMV	Gauge
BSP	1	Bilapur	BSP	Scale-I	BG
	2	Shahdol	SDL	Scale-I	BG
	3	Raigarh	RIG	HS-SPART (Scale-I)	BG
	4	Champa	CPH	Scale-II	BG
	5	Anuppur	APR	Scale-II	BG
	6	Manindragarh	MDGR	Scale-II	BG
R	7	Bhilai	BIA	Scale-I	BG
	8	Raipur	R	Scale-II	
	9	Dalli Rajhara	DRZ	Scale-II	
NGP	10	Gondia	G	HS-SPART (Scale-I)	BG
	11	Itwari	ITR	Scale-I	BG
	14	Tumsar Road	TMR	Scale-II	-
	15	Motibag	MIB	Scale-II	-
	16	Nagbhir	NAB	Scale-II	-



**Locations of 140 T BD Crane in SECR is as follows:-**

SN	Location	Bilaspur	Bhilai	Gondia
1	Division	Bilaspur	Raipur	Nagpur
2	Type of ART	A	A	A
3	Capacity of crane	140T	140T	140T

**Summary**

S No.	Equipment	Nos. in SEC.Rly	Location
1.	'A' Class ART	3 (Three )	BSP,BMY,G
2.	'B' Class ART	3 (Three )	SDL,KRBA, ITR
3.	'C' Class ART (Tool-van)	2 (Two )	BRJN & MDGR
4.	ARME Scale-1	6(Six )	BSP, SDL, RIG, BMY, G, ITR
5	ARME Scale-II	08(Eight )	CPH, APR, MDGR, R, DRZ, TMR, MIB, NAB.
6.	Break Down Truck	2 ( Two )	Bhilai, Motibagh

**Tower Wagons: - 30 (Thirty Nos. of tower wagons and tower cars are available in SECR to deal the Disaster or major accident in case the damages of OHE.**

**ART/ARME available in adjoining Railway**

**1. Location of ART with 140T Crane on adjoining Zones/Divisions:**

- i) BNDM (CKP Division, SER) (A Class).
- ii) KTE (JBP Division, WCR) (A Class).
- iii) SBP (SBP Division – E.Co.Rly).
- iv) WAT (WAT Division – E.Co.Rly).
- v) Ajni (NGP Division) - CR Rly).

**2. Location of ARME on adjoining Railway**

- i) BNDM (CKP Division, SER)
- ii) NKJ ( JBP Division, WCR)
- iii) SBP ( SBP Division, ECoR)
- iv) NGP (NGP Division, CR).

**3. Breakdown Equipment of Adjoining Railways**

Breakdown Equipment	Railway	Division	Station
LUKAS	WCR SER	JBP CKP	NKJ JSG
ART	SER WCR CR	CKP JBP NGP	JSG NKJ Ajni
ARME	SER, WCR, ECoR, CR	CKP, JBP, SBP, NGP	BNDM, NKJ, SBP, NGP (CR)

**1. Disaster Management Mock Drills:-**

Each division should conduct one full scale Disaster Management exercise once in a year similar to such exercise conducted by armed forces. Every possibility to improve State/District/Local Authorities, Armed Forces units and NDRF Battalion pertaining to the area may be ensured while conducting such exercises. A joint report of Mock Drill may also be submitted to all concerned highlighting the achievements as well as the shortages noticed during the exercise.

**2. Accident Mock Drills for ARME/ART:-**

The period between two consecutive turnouts of any Relief Train/ Accident Equipment should not exceed three months. If, therefore, relief train/ accident medical equipment has not been called out in the normal course during a period of three months, a practice drill should immediately be arranged.

It is further clarified that whenever there is an accident during the three months period Mock Drill need not be conducted instead the details of preparedness viz. turning of ART/ARME, turning up of doctors/staff, restoration process etc. can be tabulated and taken as a mock drills for the purpose of statistics. In a financial year, quarter ending is on 30<sup>th</sup> June, 30<sup>th</sup> Sep, 31<sup>st</sup> Dec and 31<sup>st</sup> March.

**These drills should be ordered by the DRM and conducted under the direct supervision of Sr. DSO/DSO or an officer not lower in rank than that of a Senior Scale, nominated by DRM.**

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

- Turning out of ARMV /ART within the prescribed time.
- Speed of the specials
- Assembly of staff within the specified time.
- Handling of ART, HRDs, HREs and other rescue equipment.
- Logging of events.
- Functioning of field telephones and communication network.
- Functioning of generator sets, lighting equipments.
- Preparedness of first-aides and availability of medical equipment.
- Preparedness of commercial department to mobilize adequate manpower.
- Arrangements regarding the drills should be kept confidential.

**Mock Drills on Disaster Management vide Adviser (Safety) Railway Board letter No. 2003/Safety (DM)/6/3 dated 27.07.2010 under reference of CRB's letter dated 29.04.2009.**

Direction of Adviser safety had been given to the Zonal Railways that Mock Drills may be conducted on Disaster Management on each Division/Zonal Railways involving NDMA and NDRF as also Officials of the State Government and District Administration.

A meeting was conducted between Railway Board and NDMA on 26.07.2010 to review the preparedness of the railways. The NDMA issues on a yearly basis a calendar of mock drills (mock exercises) planned to be conducted at different locations.

This drills will be other than Train Accident cases; hence the Safety Organization may conduct a mock drill within the next two months on a Railway related Disaster (Train Accident). Subsequently such mock drills (on Railway related cases) are to be conducted once every 6 months.

Hence SECR has also advised to the divisional officers to take part in the mock drills in coordination with the representative of NDMA as also NDRF Battalions located nearest to be divisional offices vide CSO/HQ/BSP letter No. CSO/Safety/DMP/173 dated 05.08.2010.

### **Maintenance, operation and Mock drills of 140 tone cranes.**

As per Railway Board's letter No. 2010/Safety (BM)/6/23 dated 23.08.2010 and EDME/Tr. letter No. 96/M (M&P)/175/3/A/T dated 20.08.10 that advising the Mechanical department of all zonal railway to examine the system for maintenance and upkeep of 140 tone cranes and to hold Mock drills (either once in six months/one year).

### **Periodical inspection Schedule of ART/ARME**

Periodical inspection of ART/ARME is very important to ensure that all equipments materials in them are in perfect conditions. Guidelines are available for the inspection of ARTs/ARMEs by Supervisors, Assistant/Sr. Scale officers and JA Grade officers. Some of the inspections are to be done by the departments individually and some are to be done jointly.

In order to clearly lay down the periodically, type and the level of the inspection, the following guidelines are issued:

#### **A) Inspection schedule of ARTs:**

Sl. No.	By whom	Type of inspection to be done	Mandatory (Frequency)
1.	Supervisor of respective department i) Mechanical ii) Electrical iii) S & T iv) Engineering	Responsible for day to day maintenance of their respective equipments.	Once in every month
2.	Joint inspection by Supervisors of all departments (as in SN-1) & also traffic department.	To ensure proper functioning of their respective equipment and to remove deficiency. (traffic for placement, securing etc)	Once in every two months
3.	Joint Inspection by Jr. Scale/Sr. Scale officers of all depts. (as in SN-1)	To ensure proper functioning of their respective equipments and to remove deficiency.	Once in every three months.
4	Branch Officers of all departments ( as above in SN-1 individually)	Inspections of their respective equipments and ensure immediately, recovery of deficiency after use at site as well as proper maintenance of equipments.	Once in every three months.
5.	Branch Officers of all departments (as above in SN-1) including Sr. DSO/DSO of the division along with ADRM.	Assessment on reliability in maintenance practice.	Once in every six months.
6.	Zonal HQ safety audit team.	Audit of functioning as well as short falls in the list of equipments.	Once in a year.

**B) Inspection schedule of ARMEs:**

Sl. No.	By Whom	Type of inspection to be done	Mandatory (Frequency)
1.	Supervisor of respective department i) Mechanical ii) Electrical iii) S&T	To ensue proper functioning of their respective equipments and to remove deficiency. They are responsible for day to day maintenance of their respective equipments.	Once in a Month.
2.	ADMO/DMO/Sr. DMO	Inspection of medical equipments and immediate replacement of articles found unserviceable or deficient.	Once in a month for Scale " & I ARMEs. (10)
3.	Joint Inspection by Supervisors of Mechanical, Electrical, S&T & Traffic.	To ensure that the equipments are available as per Standard list and are functioning properly.	Once in Every Two Months.
4.	Joint inspection by Jr. Scale/ Sr. Scale officers of all deptts (as in SN-I)	To ensure that the equipments are available as per Standard list and are functioning properly.	Once in Every three months.
5.	Branch Officer of all departments (as in SN-I above) individually.	To conduct meaningful inspection & to make good of deficiencies after use at site immediately.	Once in every three months.
	CMS/MS	To see that the equipments are up to standard and in good working order.	Scale -I, once in Three months & Scale-II once in a year.
6.	Joint Inspection by Branch. Officer of departments (as in SN-I above) with Medical Officer in charge of divn MS/CMS and Sr. DSO/DSO along with ADRM.	Complete stock verification to be done. (at the end of November)	Scale -I, once in a year.
7.	Zonal HQ safety audit team.	Audit of functioning as well as short fall in the list of equipments.	Scale -I, once in a year.

Over and above schedules, "the cleaning of water tank and changing of water should be ensured once in every seven days" by train examining officials.

As per HLC item No. 86, '**A**' core group of dedicated men should be kept exclusively for ensuring proper maintenance of ART/ARME/Crane and rescue closely and relief equipments by concerned departments.

It shall be responsibility of concerned branch officers to ensure proper maintenance and upkeep of their concerned equipments.

Sr. DSO/DSO in the division should closely monitor and coordinate for the conduct of the joint inspections of ART/ARME and ensure that the schedules are followed without any violation.

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**CHAPTER - 3****NATIONAL DISASTER RESPONSE FORCE (NDRF)****Location, Constitution and Functions**

These have been formed under the Disaster Management Act at 12 selected locations in the country for dealing with relief and rescue operations related to all types of disasters. These battalions have been made from para military forces i.e., CRPF, CISF, ITBP and BSF and have been placed in different parts of the country as per the list below. Raising of one more NDRF battalions at Guntur (Andhra Pradesh) has been approved by the Government and necessary actions have been initiated in this regard. DG, Civil Defence under MHA is additionally looking after the work of NDRF at the center. Each Battalion has 6 Companies comprising of 3 teams each. Team comprises of 45 men out of which 24 are for search and rescue and balance 21 for support functions. Short-listed and trained staff is on deputation in NDRF. These Battalions are also equipped to handle NBC (Nuclear, Chemical and Biological) disasters.

**Armed forces units and which NDRF battalion pertaining to the area:-** As per the Minutes of the meeting NDMA/NDRF and RB officials held on 19<sup>th</sup> Feb.2013 at NDMA Bhawan Safdarjung Enclave. And vide RB letter No.2003/Safety(DM) /6/3, dated- 15.03.2013.

**NDRF battalion lie under the jurisdictions of SECR are given below:-**

**Bilaspur and Raipur Division.** State district /Area under the responsibility of- 3<sup>rd</sup> Bn NDRF, PO-Mundali, Cuttack-Odisha, Pin-754006. Office Phone no. 0671-2879710, Fax 0671-2879711 Mobile- 9437581614, 09439103170 and 09437964571 E-mail 3rdndrfmundali@gmail.com

Chhattis Garh				Madhyapradesh	
Balod	Bilaspur	Kokdagaon	Narayan Pur	Anuppur	Panna
Baloda Bazar	Dantewada	Korba	Raigarh	Balaghat	Sagar
Balram pur	Dhamtari	Korya	Rajnand gaon	Chhataarpur	Rewa
Ramanuj ganj	Durg	Kanker	Raipur	Chhind wara	Satna
Bastar	Garia Band	Kabir dham	Suraj pur	Damoh	Seoni
Bemetara	Jashpur	Mahasmund	Sukma	Dindori	Shahdol
Bijapur	Janjgir- Champa	Mungeli	Sarguja	Jabal pur	Sidhi
				Katni	Singrauli
Odisha				Mandla	Umaryia
Sunder Garh		Jharsuguda		Narsingh pur	

**Nagpur Division.** State district/Area under the responsibility of- 5<sup>th</sup> Bn NDRF, Sudumbare Taluka Maval, Disst- Pune (Maharastra) Pin-410507 Office Phone no. 02114-247010 Fax 02114-247008 Mobile- 09423506765 E-mail 145crpf@gmail.com

Maharastra				
Nagpur	Gondia	Chandra pur	Bhandara	Garchiroli





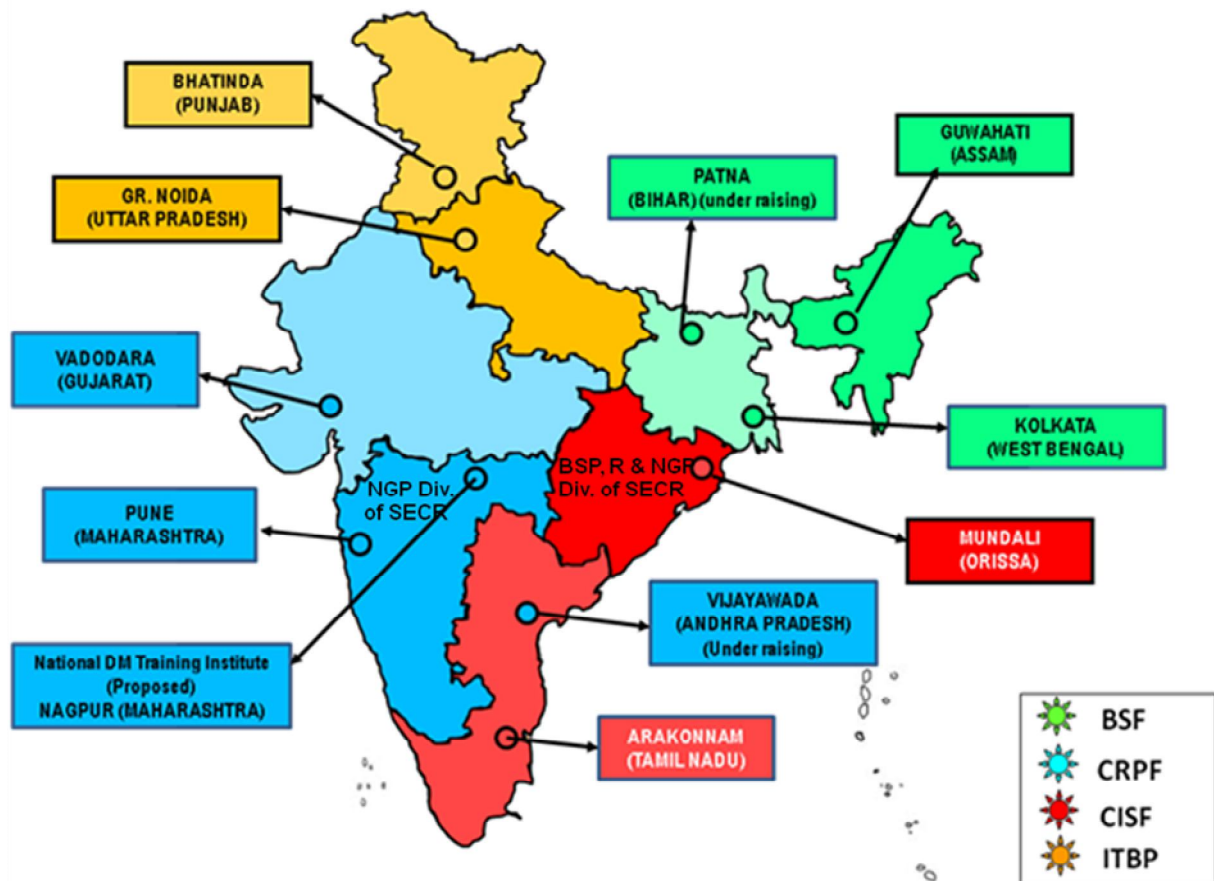


**NDRF HQ**

DG/NDRF- (Shri R. K. Pachnanda). Mob. -09818564455 Off. 011-24369280 Rec. 011-24369278	IPS, IG/NDRF (Shri Amrendra Kumar Sengar) Mob. +918004042000 Off. 011-24363268	DIG/NDRF (Shri J. K. S. Rawat) Mob. +919968262466 Off. 011-24363267
NDRF Control Room Tel: 011-24363260, Fax: 011-24363261, email: dg.ndrf@nic.in, ig.ndrf@nic.in dig.ndrf@nic.in		

**NDRF Bns.**

SN	NDRF Bn	Location	Tel No.	Mob. No.	FAX No.
1	1 <sup>st</sup> NDRF Bn	Guwahati (Assam)	0361-2840027 (O)	09401048790	0361-2849080
2	2 <sup>nd</sup> NDRF Bn	Kolkata (WB)	033-25875032 (O)	09434742836	033-25875032
3	3 <sup>rd</sup> Bn NDRF	PO-Mundali Cuttack-(Odisha)	0671-2879710 (O)	09439103170 09437964571	0671-2879711
4	4 <sup>th</sup> Bn NDRF	Arrakonam (Tamilnadu)	04177-246269 (O)	09442105169	04177-246594
5	5 <sup>th</sup> Bn. NDRF	Pune (Maharashtra)	02114-247010 (O)	09423506765	02114-247008
6	6 <sup>th</sup> Bn NDRF	Gandhinagar (Gujarat)	079-23202540 (O)	09428826445	079-23201551
7	7 <sup>th</sup> Bn NDRF	Bhatinda (Punjab)	01642-246193 (O)	09417802032	0164-2246570
8	8 <sup>th</sup> Bn NDRF	Greater Noida (U.P)	0120-2766013 (O)	09968610014	0120-2766618
9	9 <sup>th</sup> Bn NDRF	Bihata, Patna (Bihar)	06115-253942 (O)	07762884444	06115-253939
10	10 <sup>th</sup> Bn NDRF	Guntur (A.P)	0863-2293178	09419217790	0863-2293050
11	11 <sup>th</sup> NDRF Bn	Varanasi (U.P)	0542-2501201(O)	09455511003	0542-2501101
12	12 <sup>th</sup> NDRF Bn	Itanagar, A.P	0361-242940	09435483204	0361-242940



As per the Disaster Management Act, various Ministries and departments under Government of India should join hands for mutual assistance in case of a disaster. Assistance from local government and Non-Government agencies is invariably required by the railway administration for prompt relief and rescue operation in case of disaster affecting railways and, therefore, assistance of NDRF could be of great help to the railways. The rail infrastructure is not in an island away from the civil areas (of the Districts/States). In most cases of a disaster, other than a train accident, the State governments as well as the zonal railways would, therefore, requisition the NDRF simultaneously (for the same disaster). Coordination amongst the affected agencies (many departments of the Central Government and the States) is very important before the help of NDRF is required.

### Coordination with NDRF

Zonal Railways should get in touch with NDRF offices at the nearby locations to have the first hand knowledge of the resource available with them and also to familiarize them with railway related disaster situations and expose them to the issues relevant to the rescue and relief of passengers during railway accident. It has also been advised to associate NDRF in full scale exercise that is held once every year. There are no charges for availing the services of NDRF except the rail transportation which railways may provide at their cost for attending to rail disasters. Railways may also have to provide rail transportation logistics for transporting NDRF even in case of non-railway exigencies.

The Railway Board had earlier empowered DRMs to directly requisition the relevant NDRF battalion for relief and rescue operations depending on the gravity of situation so that their services could be made available expeditiously without any loss of time. However in the cabinet meeting held on 22<sup>nd</sup> October 2009, the National Policy on the Disaster



Management has been approved. This Policy lays down modalities for the requisitioning of NDRF as under:-

The general superintendence, direction and control of this force shall be vested in and exercised by the NDMA and the command and supervision of the force shall vest in an officer to be appointed by the Central Government as the Director General of Civil Defence and National Disaster Response Force. Board's policy directions given to the Zonal Railways that the DRMs can directly approach for requisitioning the services of the NDRF now stand revised. The need for the services of the NDRF shall be communicated in a centralized manner by the Zonal Railways through the NDMA only.

**Requisitioning in the help of NDRF for relief and rescue operations in case of serious Railway accidents.**

The Railway to be followed the following format while the requisition is being made either from the division or from the Zonal Headquarters:-

**SOUTH EAST CENTRAL RAILWAY**

Office of the-----

-

No. -----

Dated: - -----

To,

The Commandant

NDRF, -----

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

Dear Sir,

There has been a serious accident on ..... Railway over ..... division on ..... station in ..... section at ..... hrs. on .....

From the information received till now it appears that the accident is of a serious nature and could lead to large number of casualties. Although Railways are making all efforts to take up relief and rescue operations, it is felt that the participation of the NDRF personnel could be of great help in speeding up the process and reducing casualties.

In view of this you are requested to immediately depute adequate number of men from your battalion with necessary equipments to the accident site at the earliest.

The movement of your battalion indicating the time and route of travel from your place to the accident site may be intimated to the undersigned by E.Mail/FAX so as to ensure adequate coordination. Kindly also indicate the contact No. of the senior most personnel who will be traveling with the NDRF Group. Detail information about accident are furnished here with in a separate enclosures in Annexure-I.

**Encls:** - As above.

Thanking you

Yours sincerely

Manager/

Divil. Rly.

Chief Safety Officer  
Mobile No.

E. Mail ID \_\_\_\_\_

FAX No. \_\_\_\_\_

Copy to:

- 1) Adviser (Safety), Railway Board (Fax No. 011-23386215) for kind information and necessary action please.
- 2) NDMA HQ (Fax No. 011-267017), NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi.
- 3) NDRF HQ (Fax No. 011-261059), National Disaster Response Force (NDRF), Sector-1, R.K. Puram, New Delhi...
- 4) DRMs – Bilaspur, Raipur, Nagpur for information and necessary action please.

Annexure –I

**Accident Information**

1. Travel Co-ordinate \_\_\_\_\_
2. Name of the District \_\_\_\_\_ (where accident occurred)
3. Distance from Bilaspur \_\_\_\_\_
4. Name & Contact No. of Nodal Officer whom to be approached for co-ordination \_\_\_\_\_
5. Timing of placing special train for swift movement \_\_\_\_\_

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**CHAPTER-4****PREVENTION AND MITIGATION PLAN FOR ACCIDENT IN SECR**

Prevention is to ensure that human action/natural phenomena do not result in disaster/emergency. Primary prevention is to reduce –avert-avoid the risk of event occurring, by getting rid of hazard/vulnerability. Secondary prevention means reorganize properly the event and to reduce its effects. Prevention is concerned with policies and programmed to prevent recurrence of disaster and covers long term aspect of such disaster.

Mitigation means to reduce severity of human and material damage caused by Disaster.

**Objects of mitigation are –**

- a) Save Lives
- b) Reduce economic disruption,
- c) Decrease vulnerability/increase capacity
- d) Decrease chance/level of conflict,
- e) Matching increase in maintenance support system (both manpower and equipments).

**Vision-2020** stipulates targets Zero accidents and target to achieve Zero failure in equipments and a leapfrogging in technology and to generate committed work force to meet future challenges. Railway Board has prepared Corporate Safety Action Plan and on that basis SECR has prepared Corporate Zonal Safety Action Plan (2003-2013). For each year Safety Action Plan is prepared to implement the object of Corporate Safety Action Plan to prevent any unusual incidents and to mitigate human sufferings.

**Safety Action Plan initiated to prevent and mitigate Disaster.**

Replacement of over- aged and redundant assets are being taken care of by Railway. Rehabilitation/rebuilding of bridges on the basis of technical obsolescence will be taken up in phased manner. Over aged rails, turn-outs, ballasts, wooden sleepers, ST&CST by PSC sleepers, through weld renewals, CTR, TRR, TSR etc. are done on regular basis. Maintenance of track and its monitoring are done intensively. Vulnerable areas are inspected frequently and their patrolling is done in seasonal basis and as and when required. Sabotage prone areas are patrolled in emergency and anti-sabotage measures are taken for protection of tracks.

Over- aged locos, coaches and wagons are replaced by Railway in time phased manner. Four wheeler wagons are phased out from system. Zero defects and Zero missing safety fittings are ensured at the time of turning out of rolling stock from workshop, loco shed and sick line. 100% Brake powers are ensured on air brake trains from originating station/yard. Guide line on overdue maintenance of rolling stocks is strictly followed.

Overdue lever frames, signal gears are replaced by panel interlocking. Track circuiting, provision of BPAC, Data-logger, and LED based signal light and interlocking of L.C gates are being provided through Safety Action Plan.

Manning of unmanned level crossing having heavy road/rail traffic, construction of ROB/RUB and limited height subways are planned with coordination with state government. Some unwanted unmanned and manned level crossings are to be eliminated. Basic infrastructures are provided at manned and unmanned level crossing gates.

Technological inputs are given priority in maintenance of tracks, rolling stocks, signals and telecommunications and IT. Instruments/Devices like USFD, GPS, VCD, Thermit

welding, twin beam head light for locomotives, fire retardant materials, provision of emergency exit, auto flasher light and provision of micro processor- based speed recorder and electronic brake system etc. are guarantying safety in system. Addition of technical inputs will be carried in the system of assets maintenance. Equipments like TAWD, ACD, and TPWS are to be planned to plug the human failure and to ensure safety in due course of time.

Long-hours duty, sobriety test on board and filling up the vacancies in safety cadres are monitored on regular basis. Ten hours rule will be implemented with all sincerity.

Human resource development is managed through 1) formal training in training schools 2) on job training in workshops, loco sheds and maintenance depots.3) Safety seminars are organized to instill safety awareness on different tropics. Front line staff and supervisors are imparted on job training on newer technology and equipments. Training on Disaster Management is given to officers and supervisors in different institutions to meet any emergency. Focus on development of man power through major improvements in working environment and training will be given priority.

Inspections and Counseling are being conducted in regular basis by all the departmental officers and supervisors and follow up action on field inspections are also monitored properly. Safety-Audit Inspections are done on inter Railway and inter Divisional basis of critical Railway establishment.

Alert-Advices are issued from time to time and Safety Drives are conducted against the weaknesses of the system for rectification.

Accidents are taken seriously and all accidents are enquired into and remedial measures are taken to avert the recurrence. D&A action are initiated against the culprit. GM & AGM/DRM are accepting the findings and review of all accidents enquiry reports.

Coordination with other Government agencies for promoting safety at level crossing is maintained. Media campaigns are launched time to time.

In case of any Disaster, Government, Non-Government organization and private agencies are mobilized to meet the emergency jointly to save life and property of people involved. Civil and Private Hospitals are also tied up with railway medical department to get medical assistance in time to save the precious life of injured passengers. Fund required for medical assistance is met with SOP on Disaster Management. Ultimate motto to reduce the humans suffering and material damage is always given paramount importance before and after the accidents. To reduce the vulnerability and to increase the capacity are always kept in mind while dealing with prevention and mitigation of Disasters.

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## CHAPTER – 5

### CAPACITY BUILDING TO HANDLE DISASTER

Newer concepts like integration of disaster management into developmental planning, leveraging on the strengths of other non-railway agencies etc. Training on disaster management of various tiers of Railway Officials was envisaged. There was no training given for natural calamities or terrorism related items. Hence concept of training in railway re-oriented to cover new concepts.

It has also not yet been possible to harness availability and strengths of railway on-board staff who are the “first railway responders” during a serious train accident. With this in view, board have decided to re-map the training on disaster management being imparted to several tiers of railway officials through railway training institutes as indicated below –

Special training modules are being setup at ZRTI and STC for disaster management training of other railway officials.

For the rescue, extrication and other essential aspects of fire fighting, crane operation etc, Training Institute is proposed at Bangalore.

#### **List of Training Centers in SEC Railway:-**

There are **six number** of Recognized Training Centers (MDTC/BSP, ETC/BSP, ELTC/USL, DTTC/BMY, DTTC/DGG and ETC/DGG) are available in SEC Railway to train the staff of all Departments to promptly work with Rule and Regulations effectively. No training centre is available in SEC Railway for DMP training. Hence non-gazetted staff is taking DMP training in ZTC/Sini. Frequency of DM training of supervisors once in three years.

Officers in SEC Railway are taking Disaster Management Training in IRITM/LKO, NAIR/BRC and NCDRC/NGP to promptly and effectively respond in Disaster. Frequency of DM training of officers once in five years.

As per Railway Board letter No. E(MPP) 2015/3/7 dated 24.04.2015 & DG/NDRF letter No. I-17018/Trg./DGNDRF/2015-793 dated 07.04.2015 that High Level Committee on Disaster Management (Vide SL. No. 105 ) has recommended for periodic training in disaster management for frontline staff such as RPF, TTE'S, CATERING STAFF, TXR, AC attendants, Safaiwalas, guards, drivers/assistant drivers, PWI's gang men etc. in this regard A Committee has constituted by Board to finalize the syllabus and duration of training for the frontline/on-board staff in collaboration with National Disaster Response Force (NDRF).

As recommended by the Committee, it is proposed to impart training to the trainers working in the various training centers over Indian Railways along with the ART/ARMV supervisors looking after rescue and relief activities. These trained trainers will further be utilized for training the frontline staff in the respective Zonal Railways at the locations as deemed fit by them. The tentative schedule for TOT for Railway first responders is being prepared from Railway Board/NDRF to cover the training in the respective zones according to tentative schedule.

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**CHAPTER – 6****GOLDEN HOUR**

In the period immediately after the accident where grievous injuries to passengers, loss of property etc. takes place, action has to be taken on war footing by Railway Officials/officers on-board to render definite medical care which gives relief to affected persons and also helps them to overcome the trauma. This first one hour period is known as the **Golden Hour**.

**Implementation of Golden Hour Concept in Railway Accident (Advisor, Traffic Trans. (M) letter No. 2004/M(L)/466/710 dated 29.06.2010)**

- a) Most of the self propelled units are located at places where availability of diesel locomotives is not a problem. On the other hand some of the conventional ARMVs and ARTs are so located that availability of diesel locomotive for their haulage may get delayed. On an overall perspective, where diesel locos are not readily available, the SP ARMV and SPART need to be based on priority at these locations. This is presently not so. This deficiency needs to be removed by relocating the SPARMVs.
- b) In order to make available two M/L locomotives in the interim (once loco hauled ARMV and the one for ART) and eventually only one (for ART), the Zonal Railways may review the deployment of locos for making use of available passenger service link and goods line over diesel locomotives at the same location to have round the clock coverage. Locos being used for local shunting can be used for the ARMV/ART. Replacement of WDS4/WDS6 with an M/L diesel loco for shunting, running of few short lead passenger trains on diesel under OHE, etc. should be done on the basis of a periodical review.
- c) All divisions have, at present, a few dual traction trained crews. Their usage on dual traction (especially on Diesel loco) will need to be continued even on a selective basis. They may be deployed where possible by using them periodically on Diesel traction to ensure learning road is not repeated after every 15/30 days due to non-usage of crew.

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

- i) Render definite medical care to the extent possible preferably by qualified medical practitioners.
- ii) Stop bleeding and restore Blood Pressure.
- iii) Persons under shock should be relieved of shock immediately.
- iv) Transport casualties to the nearest hospital so as to reach within this Golden Hour period. For being effective, any Disaster Management system should aim at recovering as many critical patients as possible and rushing them to hospital within this period.

**1. DISASTER SYNDROME**

A victim's initial response following a Disaster is in three stages, viz. shock stage, suggestible stage and recovery stage. These initial responses are called Disaster Syndrome.

- i) Shock stage: In which victims are stunned, dazed and apathetic.
- ii) Suggestible stage: In which victims tend to be passive but open to suggestions and willing to take directions from rescue workers and others.

- iii) Recovery stage: In which individuals may be tense and apprehensive and may show generalized anxiety.

## **2. 3 DIFFERENT PHASES OF DISASTER RESPONSE**

Disaster Response in case of a railway accident consists of 3 phases. These 3 phases are determined both by the time factor, as also by the extent of specialized assistance available. Firstly, it begins with the spontaneous reaction of men available on the time of the accident. Thereafter the second phase continues with contributions made in rescue and relief work by men and material available locally in nearby area of the accident site. The third and longest phase consists of meticulously planned action by trained DM teams who arrive at the accident site to carry out rescue and relief operations.

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

The second phase which is of 2-3 hrs. duration is comparatively less amateurish and much better equipped. Their contribution is vital since the 'Golden Hour' period comes to an end during the working of this group. How many critically injured passengers can finally depend solely on the efficiency of this group.

The last and final phase of Disaster Response by railway's DM team continues for a few days. It comes to an end not only with the restoration of traffic but also with the departure of most relatives and next of kin from the accident site and disposal of all bodies. Few of the grievously injured that continue to be hospitalized for comparatively longer spells are then the sole responsibility of railway's medical department.

With the above scenario in mind, it is necessary to take firm and quick decisions to save lives and property. To achieve these objectives railways have a well defined action plan that is successfully executed by the coordinated efforts of different disciplines, all of who function as a team. The three groups which are active during the above mentioned 3 phases of Disaster Response, may be classified as follow –

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

## **3. FIRST AID IN EMERGENCY**

a. Order of priority for dealing with and helping injured passengers should be as follows–

- Unconscious.
- Bleeding excessively.
- Having breathing problems.
- Grievously injured.
- In a state of shock.
- Having fractures.
- Simple injured.

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

i) **D – DANGER**

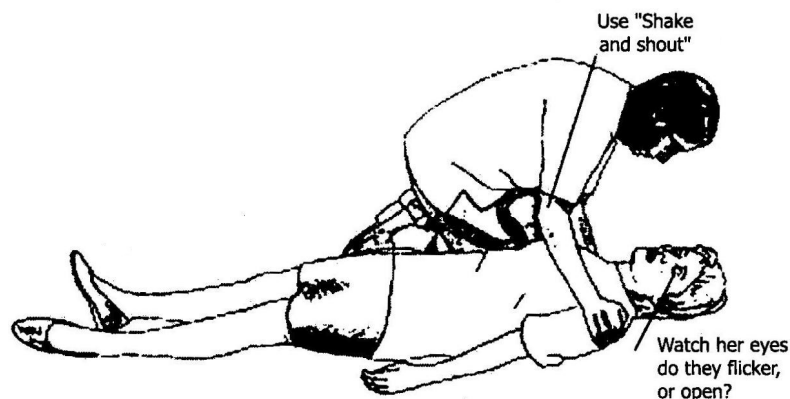
Look for danger; Make sure that no further danger exists either for the patient or for the First Aider.

ii) **R – RESPONSE**

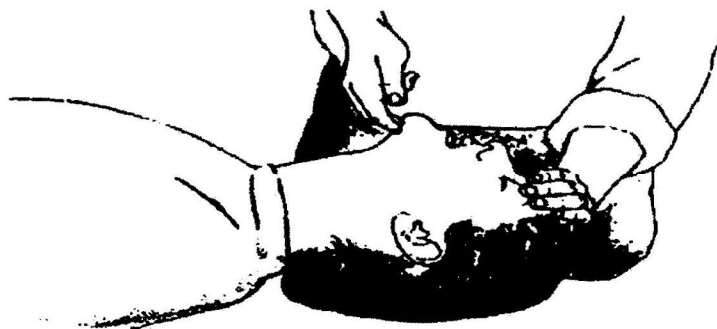
Check for consciousness. Call by his/her name, slap and pinch and shake gently. If there is no response, then it means that the patient is unconscious

iii) **A – AIR WAY**

Clear the air way (Trachea) if patient is conscious, then the air way 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 air way lift the chin forward with the fingers of one hand while pressing the forehead backwards with the other hand, now the tongue comes forwards and the air way is cleared. To clear the other objects in the mouth press the Jaw, open the mouth put your fingers or a clean cloth in the mouth and clear the things. Now the air passage clear.

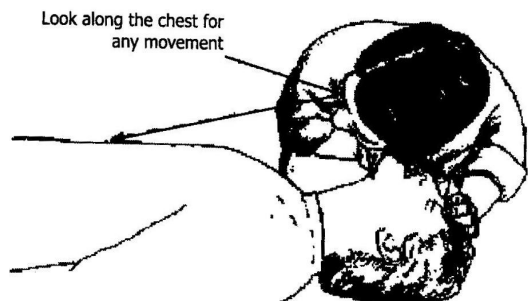


To open the air way lift the chin forward with the fingers of one hand while pressing the forehead backwards with the other hand, now the tongue comes forward and the air way is cleared. To clear the other objects in the mouth press the jaw, open the mouth put your fingers or a clean cloth in the mouth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



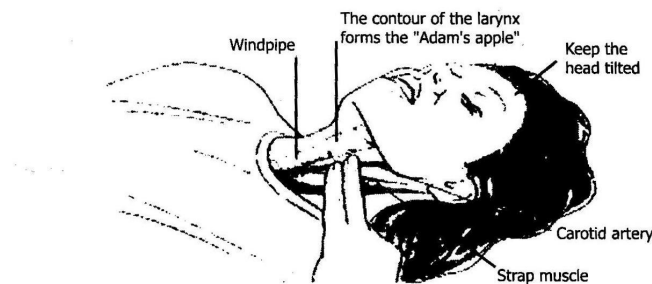
iv) **B – BREATHING**

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



v) **C – CIRCULATION**

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



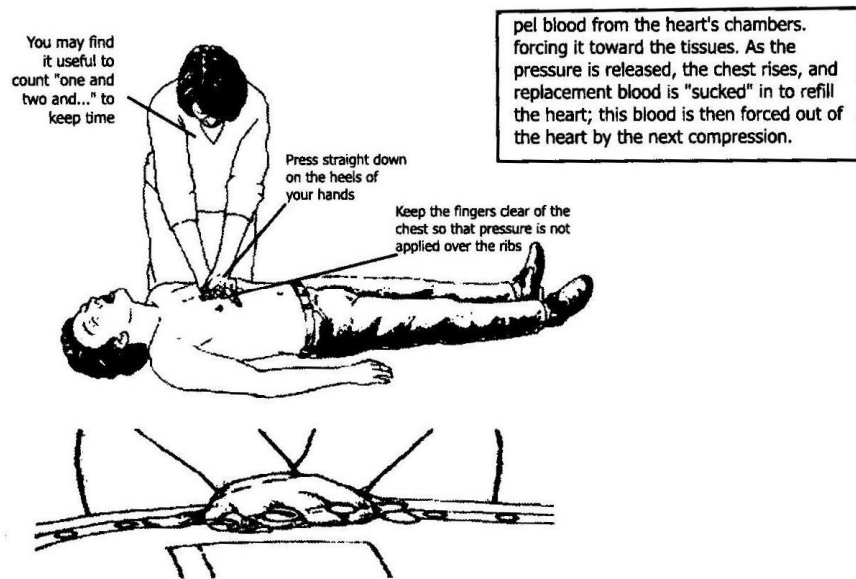
After checking DR ABC, there may be two possibilities.

- i) If patient is breathing has circulation but is unconsciousness, immediately turn him to recovery position and transport to hospital.
- ii) If the patient has failure for breathing and circulation, then immediately start CPR (CARDIO PULMONARY RESUSCITATION) the important life saving technique in First Aid.

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



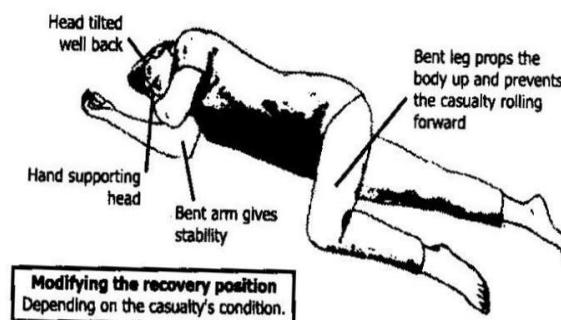
To revive the heart you have external chest compression. The casualty should be made to lie down on a hard surface. Keep heel of the palm on the chest (pit of stomach) of the casualty and keep the other palm over that hand and compress.



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

## RECOVERY POSITION

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



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

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**CHAPTER - 7****FUNCTIONING OF DISASTER MANAGEMENT CELL AT HEADQUARTERS AND FRONT LINE STAFF**

The Disaster Management Cell will operate at HQs and shall be attended by nominated Officers.

**Safety department**

The Officer representing Safety Department shall coordinate the functioning of Disaster Management Cell. He shall report the accident to Railway Board/CRS/GM and update the restoration details from time to time. He shall also ensure ordering of Relief Train for evacuation of involved passengers from the site of accident. The officers attending the Disaster Management Cell shall obtain the full details of the accident from Divisional Control/Site of accident and shall monitor the movement of Breakdown Train and Relief Train. Top-most priority is to be given for rescue operations, for transferring the injured passengers from the site of accident to the nearest hospitals, and for sending medical aid from Civil/Military/private hospitals.

**Medical department**

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

**Commercial department**

The Officer representing Commercial Department shall ensure ordering of refreshments for the passengers of involved train, payment of ex-gratia to the injured and to the next-of-kin of the dead passengers, arrange for trans-shipment of goods and passengers luggage, and hire private buses for transport of passengers from site of accident to the nearest Rail Head. He shall also ensure transmission of detailed information regarding injured/casualties to originating/destination stations, to Railway Board, and to HQ of the originating/destination Railways. He shall also ensure opening of Emergency Information Booths at important junction stations en-route within the Railways.

**Operating department**

The Officer representing Operating Department shall manage relief and restoration operations at headquarters level. He shall record all events related to the accident chronologically. He shall ensure regulation and diversions of trains keeping in view the likely time of restoration at accident site. He shall ensure that the passenger carrying trains are regulated at such stations where water and catering facilities are available. He shall also monitor the ARTs/ARMVs/Labour Special trains ordered from the adjoining divisions and zones.



**Mechanical department**

The Officer representing Mechanical Department shall assess the requirement of additional Medical Vans/Breakdown Trains and shall liaison with adjoining Railway/Division for ordering the same. He shall also monitor the movement of Breakdown trains. He shall obtain the details of rolling stock involved in the accident and its PRO particulars. He shall obtain the restoration details regarding re-railment /toppling of wagons/coaches done by each individual Breakdown Train. He shall obtain the bio-data of the crew involved in the accident.

**Engineering department**

The Officer representing Engineering Department shall obtain the information regarding damage to track and shall ensure ordering of material train if required. The details of track structure and other relevant details such as USFD particulars, last inspection, profile of the track, etc. shall be obtained within minimum time. He shall organize ordering of additional Labour and material Specials, as per the requirement at site, from the adjoining divisions/zones.

**Electrical department**

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

**S&T department**

The Officer representing S&T Department shall ensure efficient communication. A line should be dedicated for the emergency transmission from site of accident/divisional control to Disaster Management Cell at HQ. He shall ensure installation of MTNL/Telecom Department Public Phone/Railway Phone at the site of accident involving passenger train. He shall obtain the details of S&T gears involved, if any, in the accident.

**Duties of Guard, Loco Pilot, Assistant Loco Pilot, Train Superintendent/Train Ticket Examiner, AC Mechanic/Attendant & RPF/GRP staff****a) Guard –**

- i) Note 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 Driver on walkie-talkie set.
- iv) Inform Station Master on walkie-talkie set, if possible.
- v) Protect adjacent line/lines if required and the line on which the accident has taken place as per GR 6.03.
- 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 to Control office and SMs on either side of the block section. For this purpose.
  - a) CUG mobiles/walkie-talkie communication provided with stations should immediately be used.
  - b) Otherwise field telephone should be used.

- c) If a train comes on the other line, which is not blocked, the same should be stopped and information sent through the driver.
- d) Assistant driver of Assistant guard may be sent to the next station to convey information of the accident.
- e) 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.
- 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 Railway staff constantly man field telephone.
- xv) Arrange protection of passenger's 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.
- 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 your activities. Do not leave the spot unless a competent authority relieves you.

**b) Loco Pilot –**

- i) Note 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 warlike-talkie set or CUG phone.
- iv) Inform station master on CUG mobile phone/warlike-talkie set, if possible.
- v) Protect adjacent line, if required, and the train in front as per GR 6.03.
- vi) 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.
- ix) Send information through quickest means to control office and SMs on either side of the block section. For this purpose,
  - a) Walkie-talkie communication provided with stations should immediately be used.
  - b) Otherwise field telephone should be used.
  - c) If a train comes on the other line, which is not blocked, the same should be stopped and information sent through the driver.
  - d) Assistant driver or Assistant guard may be sent to the next station to convey information of the accident.
  - e) If all the above fail, one of the Railway staff on duty on the train should be sent on foot to the nearest station.
- x) Render all possible assistance to the guard.
- xi) Preserve all clues and evidence regarding probable cause of the accident and ensure that these do not get disturbed.
- xii) Log your activities; do not leave the spot unless you are relieved by a competent authority.
- xiii) If necessary detach loco and take it to inform SM.

**c) Assistant Guard –**

- i) Ensure that train is protected as per GR 6.03.
- ii) Help Crew/Guard in arranging protection of adjacent line, if obstructed.
- iii) Assist Guard in conveying information to SM/Section Controller.
- iv) Help the Guard in rendering First Aid to injured.
- v) Help in shifting injured persons to the nearest hospital.
- vi) Ensure protection of Railway and public property till arrival RPF/GRP.
- vii) Carry out the work assigned by guard.

**d) Assistant Loco Pilot –**

- i) Assistant loco pilot should work under the control of the loco pilot with the same duty list of loco pilot. Loco pilot and Assistant loco pilot should drive the work so that the duties are carried out the shortest possible time.
- ii) The assistant loco pilot will follow instructions given to him by driver.
- iii) To provide First Aid to injured. First Aid box is available with guard.
- iv) If necessary use fire extinguishers, which are available in pantry car.
- v) In case if the loco pilot is dead or injured, Assistant Loco pilot will perform all the duties of driver.

**e) Train Superintendent/Travelling Ticket Examiners –**

- i) Preserve reservation charts of each containing names of passengers who actually travelled and in which berth no.
  - ii) Avail services of Doctors travelling by the train and render Medical Aid.
  - iii) Render First Aid to injured.
  - 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 ARME arrives.
  - v) Prepare a separate list of dead passengers with address and ticket particulars, if available.
  - vi) Taken assistance of local people and other volunteers at site.
  - vii) Transport injured passengers by road vehicle, if available, to the nearest hospital.
  - viii) Inform standard passengers about alternative transport arrangement.
- Record Evidences or statement given by passengers/other at site.

**f) AC Mechanic/Attendant –**

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

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**CHAPTER – 8****PASSENGER CARE****General**

1. Providing assistance to passengers and their relatives/dependents is of utmost importance in helping them relieve their misery.
2. Injured passengers and their relatives/dependents are to be treated with utmost courtesy and sympathy so as to alleviate their trauma and discomfort.
3. For dealing with relatives/dependents arriving from far-flung corners of the country, staff fluent in local language of the place from where the train originated, should be used as interpreters.
4. Commercial Supervisors and Welfare Inspectors should talk to injured passengers and ascertain if they wish to call their relatives/dependents.
5. Injured passengers should thereafter be provided with either mobile or STD phones to enable them to speak to their relatives/dependents.
6. Transshipment of unaffected passengers and their clearance from the accident site would be arranged quickly. The officer available in the control shall arrange the transshipment on priority.
7. Even in case of worst possible accident with adverse and extreme circumstances, all injured passengers would be rescued on priority. Site manager as well as officer in charge in the control shall monitor the situation to do so.
8. In rescue operations, top priority will be given to all passengers in critical condition for immediate medical attention.
9. Even in case of worst possible accident, dead bodies would be extricated at the fastest possible speed. The ARME in charge and officials available at the site of accident should act accordingly.

**Hospitalization of the injured**

1. General policy, in case of railway accidents involving passengers, is that of rapid evacuation of the victims to railway hospital after rendering immediate and necessary first-aid treatment.
2. In case there are no railway hospitals nearby, they are to be admitted in the nearest Government hospitals.
3. In the following cases, the injured may be taken to a private hospital:
  - ❖ When there is no railway or Government hospital available within a radius of say 8 kms. From the site of accident, or
  - ❖ When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient.

- ❖ Except where railway doctor certifies, such injured passenger should normally be eligible to the class of accommodation in the private hospitals where different scales are available.
  - ❖ 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.
4. For this purpose, each division should chalk 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.
  5. To facilitate matters and to avoid misunderstanding, CMD should draw a list of such private hospitals bearing in mind the Railway and other Government hospitals in the vicinity.
  6. CMD should also fix the charges to be paid in such cases for each class of accommodation. Complete medical care will be taken of all injured passengers, including payment of medical bills till their final discharge from hospitals. Claims compensation booklets containing forms and other instructions will be distributed to all injured passengers and next of kin of all deceased passengers.
  7. Bills by such private hospitals should be submitted through CMD, who will certify the correctness of charges payable, before forwarding for payment to FA&CAO.
  8. Under this Para, payment to private hospitals can be arranged locally by the Railway, and Ministry of Railway's approval is not necessary.
  9. If the injured are admitted in non-Railway hospitals, railway doctors should be deputed to these hospitals to render necessary assistance, including supplying the medicines that are not available in these hospitals.
  10. They should carefully monitor the condition of injured and maintain an updated list with all details.
  11. If more than one hospital is involved, apart from deputing doctors to individual hospitals, a railway doctor should also be deputed to co-ordinate and maintains the centralized updated position.

#### **Facilities to be made available in the hospital**

1. There should be a separate reception counter manned by a commercial Supervisor or by a Welfare Inspector at the entry to the hospital, to deal with relatives/dependents of patients.
2. A chart should be displayed at this reception counter indicating ward numbers where the patients are admitted, along with their names, coach number wise.
3. At the entry to every such ward, a second list should display the name of the patient, coach number and the bed number inside the ward.
4. Commercial staff and Welfare Inspectors on duty at that hospital should carry a list indicating the name, address and telephone numbers of relatives/dependents as given by the patient, and whether they have been informed or not.

5. Arrangements should be made to inform the next of kin or a relative or friend of the deceased, in case identity of the person involved in accident becomes known.
6. As each relative arrives, his name should be marked in the list against the passenger's name.
7. Reception counter should be provided with BSNL telephone with STD facility.
8. There should be two mobile telephones readily available to be taken to patients inside the wards for making outgoing calls.
9. Complete medical care of all passengers, including payment of medical bills till their final discharge, should be provided.

### **Communication**

1. Telephone with STD facility should be made available to passengers to communicate with their relatives/dependents.
2. BSNL/Railway telephones available at adjoining stations/cabins/towns shall be extended to the accident site.
3. PCO telephones and other BSNL phones in nearby localities/villages/towns shall also be extended to the accident site by persuading owners of such phones.
4. Payments for such telephone connections will be made from station earnings.
5. Sr. DSTE should hire some mobile phones to meet the needs of stranded passengers.
6. Wherever cellular phone connectivity is available, stranded passengers should be permitted to use these phones free of charge
7. Passenger help lines are provided for enquiry service No. 1072 in all Divisions of SEC Railway in commercial control rooms for collecting information in Disaster or any other major train accidents.

### **Arrival of relatives/dependents**

1. After a few hours, next of kin of the deceased and relatives/dependents of injured passengers start arriving at the accident site.
2. Adequate number of display boards should be available on ARMEs/ARTs for being put up at the accident site.
3. These display boards should indicate the direction of the Assistance Centre at site.
4. These indication boards should be displayed near those areas where incoming relatives/dependents arrive and congregate.
5. Periodic announcements on loudspeakers should also be made for guiding them to the Assistance Centre at site.



**Taking care of relatives/dependents**

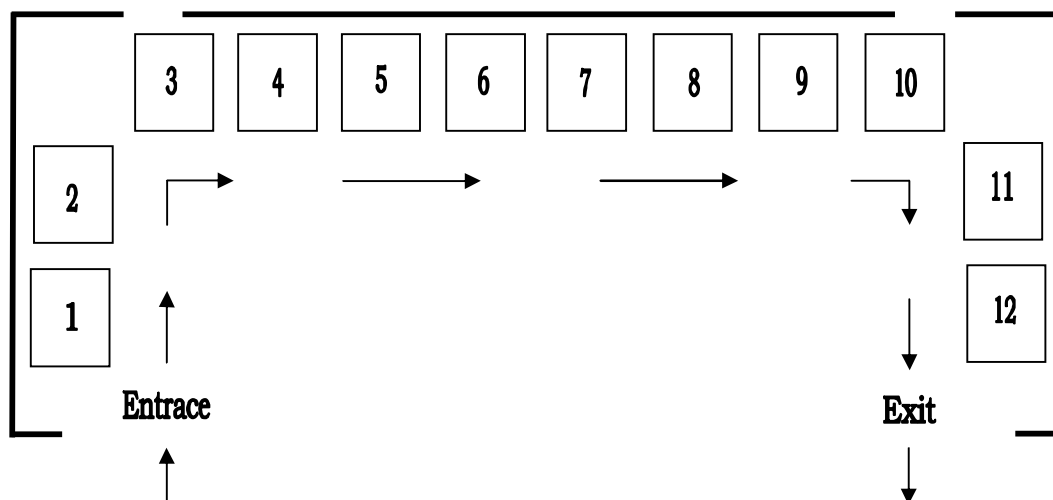
1. At the Assistance Centre at site, Commercial Supervisors & Welfare Inspectors should be available to guide the relatives/dependents. They should go through the reservation charts and list the dead/injured.
2. Commercial supervisor or WI shall depute a railway servant to accompany the relatives/dependents to the hospital.
3. A hired vehicle should be provided for carrying them to various hospitals and mortuary.
4. The commercial supervisor or WI should stay with the relative until they have either found the injured passenger or identified the dead body.
5. Thereafter, they should help them in completing all formalities at the Assistance Centre at site.
6. CI and WI must be nominated for each ARMV/ART.

**Single Window Clearance**

During major accident of passenger trains, dead and injured passengers including relatives and attendant of the victims to deal carefully in rescue to cure them effectively as far as possible for which one system has been established by the Railway and every needs of victims/relatives/attendant are fulfilled at same place.

1. Assistance Centre at site should provide single window clearance for all legal formalities and paperwork.
2. It should provide the following facilities:
  - ❖ Reservation chart for locating the name.
  - ❖ List of dead and injured along with the name of hospital.
  - ❖ A vehicle, to take the relatives to various hospitals or mortuary.
  - ❖ Railway doctor for issue of medical Death Certificate.
  - ❖ Govt. doctor for issue of post mortem clearance.
  - ❖ Municipality official for issue of Death Certificate.
  - ❖ Local police for handing over of dead body.
  - ❖ Claim counter for payment of ex-gratia and issue of Claim Compensation Form.
  - ❖ Counter to help in performing last rites in case relatives/dependents decide to cremate the body there itself.
  - ❖ Pass counter for issue of return journey pass.
  - ❖ Return journey facilitation counter to make arrangements for return journey.

Normally this system is known as single window clearance. This system is being explained with a diagram as under.



- |  |   |                            |                                  |
|--|---|----------------------------|----------------------------------|
| 1. Commercial –  | Preparation of Reservation Chart              | 7. Nagar Palika Adhikari – | Issuing Death Certificate        |
| 2. Medical –   | Identification of Dead and Injured passengers | 8. RPF/Local Police –      | Handover of Dead body            |
| 3. Commercial –  | Providing of Escort and Rescue vehicle        | 9. Commercial –            | Providing of forms for Ex-gratia |
| 4. Railway Doctor -  | Issuing of Death Certificate                  | 10. Commercial –           | Help of Burials                  |
| 5. Govt. Doctor -  | Issuing of Post-Mortem Report                 | 11. Personnel -            | Issuing of Return Journey Ticket |
| 6. Providing of Joint Help Center by In-Charge and Officer |   | 12. Operating -            | Arrangement of Return Journey    |

#### **Stay of relatives/dependents of dead and injured:**

- i) In all disasters however, the families of the deceased need to be confident that the remains of their loved ones have been correctly identified and returned to them as quickly as possible. This allows grieving and funerals rites to take place-the first steps to be taken if people are to cope with their loss.
- ii) The inheritance of property, access to bank accounts, payment of pensions, compensation, and other very mandate but pressingly practical issues, depend for their settlement on the formal identification of the deceased, recorded in the form of a certificate of death.
- iii) Commercial supervisor or WI deputed with relatives/dependents should also arrange for their stay and accommodation.
- iv) Depending upon the need, accommodation in hotels/dharamshalas should be hired for accommodation passengers.
- v) Arrangements should be made for their meals, etc.

**Performance of last rites:**

- i) In many cases relatives/dependents decide to perform the last rites at the place of accidents itself.
- ii) Necessary assistance should be rendered to relatives/dependents in locating:
  - a) The nearest cremation or burial ground as the case may be.
  - b) Shopkeepers who sell necessary material for funeral rites.
  - c) Priest for performing the ceremony.
- iii) The above information should be conveyed to relatives/dependents and transport provided for carrying the body.
- iv) Commercial supervisor or WI should help the relatives/dependents in this endeavor.

**Departure of relatives/dependents of dead and injured:**

- i) Assistance Centre at site should have counters to help the relatives/dependents plan their return journey.
- ii) Personnel branch staff at the Assistance Centre at site should be available for issuing complementary passes for their return journey.
- iii) Reservation of berths should be provided on trains.
- iv) Extra coaches should be attached to trains going to the destination station for the next two or three days. These extra coaches should be brought in locked condition from the originating station.
- v) Space should be reserved in SLRs to carry dead bodies in coffins, etc. in case they desire.

**Withdrawal from station earning**

- i) Money can be withdrawn from station earning with personal sanction of a senior scale officer.
- ii) Station pay order (withdrawn from station earnings) should be duly signed with official designation, indicating his name.
- iii) Proof that the payment has been made and the reason for payment should be kept payee with revenue stamp.
- iv) The account should be submitted to account officer within 15 days from the date of withdrawal. (Para 2425 of Indian Railway Commercial Manual)

**Guideline for commercial department at the site of accident to deal with affected passengers****1. Ex – gratia Payment**

- I. The amount of ex-gratia relief payment to be paid to the dependents of dead or injured passengers involved in Train Accidents as defined under sections 124 of the Railway Act, 1989.

S/N	Type of accident	Amount of ex-gratia for death	Amount of ex-gratia for Grievous injury	Amount of ex-gratia for simple injury
1	In case of train accident ( as defined under section 124 of RA)	Rs. 50000/-	Rs. 25000/-	Rs. 5000/-

- II. The amount of ex-gratia for death/injured in untoward incidents, as defined under section 124-A of the Railway Act, 1989.

S/N	Type of accident	Amount of ex-gratia for death	Amount of ex-gratia for Grievous injury	Amount of ex-gratia for simple injury
1	In case of untoward accident ( as defined under section 124 of RA)	Rs.15000/-	Rs. 5000/-	Rs. 500/-

- III. The amount of ex-gratia relief payment to be paid to the road users who meet with an accident at Manned Level Crossing Gate due to Railways prima facie liability.

S/N	Type of accident	Amount of ex-gratia for death	Amount of ex-gratia for Grievous injury	Amount of ex-gratia for simple injury
1	In case of accident at MLC ( as defined under section 124 of RA)	Rs. 50000/-	Rs. 25000/-	Rs. 5000/-

2. No. Ex-gratia is to be given for trespassers, persons electrocuted by OHE & road users at Unmanned Level Crossings. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995).
3. Ex-gratia is admissible for Railway servants killed or injured by moving train while performing their duty. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995).
4. Manner of arranging Ex-gratia to the victims:

Payment should be sanctioned/arranged preferably on the spot by senior scale or higher official nominated by the General Manager. (Authority – RB No. 93/TC111/122/1 dated 21.8.1995)

**Preservation of dead bodies:**

1. Numbering and photography of bodies should be done even when relatives are on hand to claim the body.
2. 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.
3. In all such accidents passengers are invariably separated from their belongings. As such in many cases there are no tickets or other identification papers on their persons.
4. This problem is further compounded in unreserved coaches where no reservation charts are available.
5. Identification problems come up in case of mutilated bodies also. In such cases, photographs are better means of identification.
6. Arrange for hiring of a couple of big halls, for keeping bodies.
7. Rooms should preferably be at a single location so that relatives do not have to go around from mortuary to mortuary.
8. A large building having number of rooms would be ideal for storing them. Best option would be to take over a school building temporarily.
9. Arrange to move dead bodies to nominated buildings being used as temporary mortuaries.
10. Bodies should be neatly lined up with their numbers prominently displayed, and kept in different rooms, coach-wise.
11. Notice Board outside the building should display the room Nos. where bodies extracted from a particular coach have been kept.
12. These details should also be posted on a notice board outside each room.
13. This will prevent unnecessary handling of bodies which in any case would be in an advanced state of decomposition.
14. For dead bodies whose relatives are not readily available and delay is expected, arrange for their preservation by dry ice etc.
15. Procure following items from local market for dealing with dead bodies.  
Shrouds, Polythene bags, Coffins, Dry ice.
16. 04 Commercial supervisors should be put on round the clock duty in the building housing the temporary mortuary for guiding relatives as and when they come.
17. Take necessary step to handle unhygienic condition that arises due to Decomposed/mutilated bodies.

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**CHAPTER – 9****MEDIA MANAGEMENT****Objectives**

- To provide factual information to public with regard to accident.
- To convey any other information which is use to passengers?
- To convey specific information which is use to relatives/dependents 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 Relations Organization**

- CPRO and his team will collect whatever information is available and released it to the media within 60 minutes of intimation of accident.
- The information shall include telephone numbers of Helpline Enquiry Booths.
- Photographers with digital and video cameras should also be taken to the accident site.
- Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.
- CPRO will organize press briefings at fixed timings.
- 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 and CPRO are competent to interact with 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.
- They should ensure that only factually correct and confirmed information is relayed.
- No inflated or exaggerated version of any fact should be relayed to the media.

No Railway man 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 in to following categories:

**Accident**

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

**Uninjured passengers**

- ❖ Steps taken to provided beverages, refreshments and first aid treatment to uninjured passengers.
- ❖ Steps taken by railway for clearance of uninjured passengers.
- ❖ Expected time of departure of front portion of the affected train.
- ❖ Expected time of arrival at the destination.
- ❖ Expected time of departure of rear portion of accident involved train.
- ❖ Its diverted route and expected arrival at the destination.
- ❖ In case empty coaching rakes have been arranged, then details of the same.

**Dead and Injured passengers:**

- ❖ Steps taken by Railway to render immediate medical attention.
- ❖ Number of passengers rescued.
- ❖ Breakup of the injured passengers, both grievous and simple.
- ❖ Name of the hospitals where injured are being treated.
- ❖ Approximately how many patients have been admitted in each of these hospitals?
- ❖ Names of injured passengers.
- ❖ Communication facilities like cell phones, STD phones provided at these hospitals.
- ❖ Payment of ex-gratia.
- ❖ Facilities offered to relatives/dependents of victims, including free pass for journeys.
- ❖ Special trains being run for bringing relatives/dependents of dead and injured.
- ❖ Number of dead bodies recovered and number of bodies identified.
- ❖ Identification of dead bodies takes much longer since either:
  - They were traveling alone or;
  - Their companions are injured and are not in a position to identify them, or;
  - Their companions have also injured/dead.
- ❖ Under such circumstances it is possible to identify dead bodies only when relatives/dependents arrive.
- ❖ This aspect of identification of dead bodies and reasons for delay should be explained to the media.

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**CHAPTER – 10****DISASTER INFORMATION FLOWS AND ALERTS OF DISASTER****Categorization of Alerts –**

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

**Action plan for communication of alert messages –**

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

**The action plan for Alert Message lays down as under for Railway.**

<b>Category</b>	<b>Description</b>	<b>Stage</b>
Minor	50 or less casualties (inclusive of death and injuries).	<b><u>Yellow</u></b>
Medium	51-99 deaths	<b><u>Orange</u></b>
Major	100 or more deaths or where additional assistance is sought by the Ministry Railways.	<b><u>Red</u></b>

**Monitoring/Reporting of Effects of Disaster –**

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

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

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

- Mobilization of Gang men
- Hospitals to mobilize Doctors and Para-medical staff
- Civil Defence units
- RPF and RPSF deployment
- Scouts and GUIDES
- Operating and manning of the disaster control room
- Coordination amongst various stakeholders through advance warnings
- Communication system to be ensured and backups to be in readiness for immediate use when required.
- In case existing railway staff may not be able to maintain train services to be operational, the TA units have to be mobilized. It takes 2-3 days for the deployment of the TA unit after issue of their mobilization order; hence an advance warning is of essence.

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**CHAPTER – 11****HOSPITAL DISASTER MANAGEMENT PLAN**

**Aim of Hospital Disaster Management Plan** – The aim of a hospital disaster plan is to provide prompt and effective medical care to the maximum possible, in order to minimize morbidity and mortality resulting from any MCE (Mass Casualty Emergency).

**Hospital DM Plan:**

There shall be on each Zonal Railways a hospital disaster management plan which will be based on the Indian Railways Hospital DM Plan issued by Railway Board.

The Hospital DM Plan shall incorporate relevant items given in the DM Plan of the Railways. It should be clarified that:

***“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 Government agency declares a major incident a Disaster and where the medical facility of the Railways shall be required to assistance”.***

*Each Hospital has to evolve its own plan and it has to be revised from time to time as each experience will bring new perspectives.*

**Objective and Goals of a Hospital Disaster Plan –**

The hospital disaster 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.

**Categorization of Emergencies**

In order to find out what constitutes a disaster or unmanageable incident for the hospital, the hospital needs to calculate its normal capacity, beyond which it has to act according to the disaster plan. The mass casualty emergencies can be categorized based on the Number and/or type of Casualties.

The categorization is based on the number of casualties coming to a hospital in a given time and the ability of the hospital to cope with those casualties. Categorization will differ from hospital to hospital and depend on several factors, such as the number of doctors and nurses available and the availability of supplies and support services. Assessment of the capacity of a hospital to respond to a given emergency situation should be done.

**The Disaster Manual:**

The plan should also be written down as a document in the form of a ‘Disaster Manual’. The reporting recording, coordinating and evaluating activities associated with DM should be specified in this disaster manual. The Disaster Manual should be prepared by the CMS or CMD of the Zonal Railway.

**Hospital preparedness and Emergency Health Management –**

Hospital preparedness is crucial to any disaster response system. Each hospital needs to have an emergency preparedness plan to deal with mass causality

Incidents and the hospital administration/doctor trained for this emergency. The curriculum for medical doctors does not at present include hospital preparedness for emergencies. Therefore capacity building through in-service training of the current health managers and medical personnel in hospital preparedness for emergencies or mass causality incident management is essential.

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. Such activities will be drafted in the hospital DM plan which will be a part of the Zonal/Divisional DM plan.

#### **Medical First Responder (MFR) –**

Railway is not be expected to be a main stake holder in the DM Plan of Disaster like CBRN, it can only be assisting agency. This may be specifically clarified in the Zonal and Divisional DM Plans as to who is considered as MFR. Presently Railway is first medical responder in case of train accident involving casualty , level crossing accident involving casualty , stamped at platform, foot over bridge and Railway premises and any non-railway accident occurring in Railway premises and adjacent to Railway premises. During such disastrous situation Medical, Civil Defence, St. Jhons. Ambulance and Scout and Guides should be summoned by DRM/Sr. DSO as per requirement.

#### **Capacity Development**

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. Training for Post Trauma psycho counseling to be imparted to Civil Defence, Scout and Guides in the respective hospitals of the divisions.

#### **Memorandum of understanding**

The HLC recommended (recommendation No. 33) entering into a Memorandum of Understanding (MoU) with the state government so that the Railway administration could join hands for mutual assistance in case of railway or non-railway disasters. The HLC also suggested entering into MoUs with the civil and private hospitals to improve the response time, with the Armed Forces and private air operators for air support to access the disaster sites. Presently there is only verbal consent from Government Hospitals as it is open to general public. Coordination among Railway Government and private hospitals is a must to any medical team to reach a disaster site in a reasonable time in the vast network of railway route kilometers.

#### **Duties of the Doctors/paramedics involved in rescue operations:**

- Keep stretcher and ambulance ready to transport the sick persons.
- Give details of injured persons to the doctor who is preparing the list of injured persons.
- Make detailed search and inspection of all the train compartments including lavatories to find out any trapped.

#### **Points to be considered while dealing with the affected people:-**

- Incident Command system,
- Communication and information system,
- Telephone Desk,

- Patient flow , Triage and category of incidents
- Drugs & equipments
- Consumable stock,
- Bed space,
- Temporary morgue
- Mortuary(AC)
- Linen stores
- Staff- medicals, nursing and paramedics their well defined duties at the time of MCE
- Volunteers
- Food service
- Information service
- Engineering service(for water and electricity supply)
- Security and other matters
- Discharge procedure

**Duties of the doctors/paramedics visiting hospitals where the injured persons are getting treatment:-**

- There should be one paramedical for one hospital.
- Before leaving accident spot they must collect telephone number of the site and Sr. medical officer.
- He should be constantly available at the hospital and he should be in constant touch with the spot giving the full details of the injured passenger duly updating.
- He should be prepared well in advance to take round the VIPs with all information.
- He should assess the nature of injuries and the capabilities of the hospital to treat them efficiently. As per assessment if there is a need to shift to higher medical center, he will arrange for the shift keeping the Sr. medical officer in the spot informed.
- He will do regular daily follow-up of the cases and the progress of the recovery and communicate.

**IMPORTANT PHONE NUMBERS OF DOCTORS OF SEC RAILWAY:**

CMD: Railway (65500-O, 65501-R), Mobile-9752475500.

CHD: Railway (65502-O, 65503-R), Mobile-9752475501.

CMS/BSP: Railway (62470-O, 62471-R), Mobile-9752876500.

CMS/R: Railway (72500-O, 72501-R), Mobile-9752877500.

CMS/NGP: Railway (52470-O, 52471-R), Mobile-9730078500.

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## **CHAPTER – 12**

### **ROLE OF SECURITY DEPARTMENT IN DISASTER MANAGEMENT**

The security Indian Railways is being managed by 3 agencies- the Railway Protection Force, State Police and the Government Railway Police. State Police and Government Railway Police function under the administrative control of respective State Governments and their role is prevention and detection of crime (except those covered by Railway act and the Railway property unlawful possession act and tackling law and order problems. Due to this coordination amongst the different agencies is very essential to handle Disaster situation effectively.

Railway Protection Force is an Armed Force of the union constituted by an act of parliament (the railway protection force Act 1947), for the protection and security of railway property, passenger area & passengers and for matters connected therewith.

#### **Role of RPF in Disasters:-**

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

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

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

#### **Integrated Security Scheme:-**

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

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

#### **Crowd Control and Management:-**

For better effectiveness, RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities.

One of the intelligence video analytics to be incorporated in the integrated Security System is related to signal for crowd density within station premises when it exceeds the prescribed limit. This will enable RPF personnel and railway authorities to get timely information when heavy crowd builds up within station premises and plan follow-up

action. Pictures stored on CCTV system will be of immense help in identifying miscreants and in ensuring effective legal action.

### **Explosion in trains and railway premises:-**

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

### **Terrorist acts & Hijacking of trains:-**

Procedures have been outlined in the Crisis Management Plans of the Government of India, of the Ministry of Home Affairs and of the Ministry of Railway to tackle such situations. Above mentioned secret documents are available with concerned Authorities and action has to be ensured in accordance with the provisions mentioned in the above mentioned plans.

Ministry of Home Affairs is the Central Nodal Ministry to tackle hostage to terrorist situations requiring specialized handling. National Security Guard (NSG) has to be requisitioned in such situations. Crisis Management Plan of the Ministry of Railway envisages management of such crisis by the National Crisis Management Committee (NCMC) and Crisis Management Group (CMG) at the Railway Board level and by the zonal management at the zonal level.

Coordinated efforts have to be ensured by all security agencies present at the spot. Senior most officials available at the spot shall handle situations in accordance with conditions of the crisis at local level and instruction received from concerned Crisis Management Group at Zonal and National levels. Quick Reaction Teams (QRTs) of RPF personnel should be available round the clock at major stations which will be immense help to tackle such situations during initial phases especially in cases of terrorist attacks.

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## **CHAPTER -13**

### **CROWD MANAGEMENT PLAN**

National Disaster Management Authority (NDMA) has prepared 'Suggestive Framework for Preparation of Crowd Management Plan for Events/Venues of Mass Gathering' and a working Paper for Preparation of **Crowd Management Plan**, titled 'Managing Crowds – A Guide for Administrators and Organizers of Events and Venues'. These documents would enable state governments / local agencies and the administrators/organizers of events and venues of mass gathering to prepare appropriate guidelines and plan for effective and efficient crowd management.

For better effectiveness, RPF, GRP and District Police have to act in a synchronized manner in consultation with magisterial authorities.

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

Planning provides a methodical way to engage all stakeholders in thinking through the life cycle of a potential crisis. determining required capabilities and establishing a framework for roads and responsibilities, taking end objectives into consideration, as a supplement to the national guide on "Managing Crowds at events /Venues of Mass Gathering" issued by NSMA, this document provided a quick reference and outline on preparation risk-informed planning process.

The concise framework navigates the planning process through a mix of instructions describing the content that each section might have as defined in national guide document.

This document suggested that the state Government may formulate guidelines for management of "events/ venues of mass gathering" with a cross reference into SDMP/DDMPs along with description on support mechanism with roles and responsibilities defined. State having guidelines on mass gathering events/ venues may review their existing guidelines/ plan keeping national guide into consideration.

During festivals or events attracting mass gathering- railways, roadways and airways etc, may experience unexpected temporary surge in number of people at such locations. Agencies responsible for operation and management such places would need to include "crowd" as one of the hazard while formulating strategic plan for public safety and implement special arrangement necessary for managing surge in number of people at railway stations, bus terminals and airports. Framework suggested in this document paves way in formulating public safety plan by agencies like railways, but transport and airways. These plans are to be developed in consultation with local authorities and event administrator/Organizer.

Different event/ venues may have different hazard profile and hence resources requirements will not be uniform. Hence this may be used as a framework and not as a template. Suitable changes, are required, may be made in the contents.



The events are approved as per local bylaws. In current scenario- information's / data collected by the licensing authority ( police at this point ) through the application form is in adequate and does not cover key components like hazards/ vulnerabilities/ risk – an event/ venue may be susceptible to. Capacity building measures can only be identified if hazards and vulnerabilities are known. Plan for event/ venue of mass gathering will facilitate seamlessly connect all phases of disaster cycle (mitigation, preparedness, response and recovery) and will also provide procedures and methodology for putting those capabilities into action during any sever incident.

Authorities responsible for granting License/Registration/Permission for events/ Venues of mass gathering will need to reconcile their exiting format of "application" by suitably integrating requirement of a plan on management of mass gathering into it.

### **Guidelines for Establishment of Emergency Operations Centre:**

1. This centre will by far possible, be near to the vicinity of the subject it is going to control.
2. The centre should be in a safe area where it is not affected by any type of disasters, both man-made and natural, so that it can exercise control over its task under any condition.
3. A Grid Map of the entire area under jurisdiction will be prepared to facilitate accuracy in pinpointing the troubled area and activate appropriate response.
4. This map will contain all relevant data like position of volunteers/police. Ambulance, fire services, medical emergency room, ticket location etc.
5. All the staff involved in this activity will have a particular call sign and the grid map person. This will give them leverage in pre-empting a particular activity that ensures safety of the crowd or if they are nearest to the spot. It will aid them in initiating corrective action and feedback to the control centre.
6. This centre will exercise positive control over the crowd movement to and from the event venue.
7. This centre will not act under pressure of any sort from any individual or agency requesting speedy access to event/venue. At the time, it will exercise total discretion in allowing the same only if doing so may lead to safety and security concerns.
8. The centre will be the hub for information flow about the crowd movement both up and down.
9. All emergency support services will be coordinated from this centre.
10. This centre will exercise direct control over the already parked ambulances, fire services and regulating their movement, in and out of the disaster prone area.
11. This centre will pre-validate and decide the level & distance of accessibility of emergency services in the disaster area to avoid congestion and quick turnaround, there by speeding up the movement of cases and vehicles.
12. The centre is also responsible for validating the main routes for crowd movement and alternative routes (marked as standby for ingress and egress).
13. The centre will exercise/regulate the positioning of food stalls, public facilities, watering points, rest areas and display systems for easing the flow of crowd and their anxiety level.
14. The entire communication network i.e. the public address system, wireless setup, display system etc. will be controlled by a dedicated team under the supervision of one competent person, who will in turn report to the chief of Emergency operations Centre.

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**CHAPTER – 14****GUIDELINES DURING CHEMICAL DISASTERS**

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

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

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

**CLASS – II (GASES, COMPRESSED, LIQUIFIED OR DISSOLVED UNDER PRESSURE)**

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

**Dissolved Gases:**

- Acetylene (compressed into porous substances).

**Compressed Gases:**

- Air Compressed
- Argon
- Coal Gas
- Hydrogen
- Methane
- Neon
- Nitrogen
- Oxygen
- Sulphur Hexafluoride

**Liquefied Gases:**

- Ammonia (Anhydrous)
- Chlorine
- Liquefied petroleum Gas(Commercial Butane or Propane)
- Carbon dioxide ( Carbonic Acid Gas )
- Cyclopropane gas
- Ethyl Chloride

- Freon, Arcton or Genetron
- Hydro-cyanic Acid
- Medical Mixtures (Oxygen and Carbon dioxide & Oxygen and Helium mixture)
- Methyl Bromide
- Methyl Chlorine ( Chloromethane )
- Nitrous Oxide
- Sulphur Dioxide Toxic(Sulphurous Acid Gas)
- Liquid Air
- Liquid Nitrogen
- Liquid Helium

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

### **Packing**

Before the above commodities are transported by rail, it must be packed as per rules 207.1 & of Ref Tariff No. 20.

However, Rule 207.2 i.e. rule for protection of cylinder valves during transport shall not apply to cylinders containing oxygen or nitrous oxide for medical purposes having water capacity less than 5 liters.

### **Marking & labeling of Cylinders or Containers**

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

### **Storage** (Refer Rule No. 211 of Ref Tariff No. 20)

Following points must be ensured:

- Thin wall cylinders such as liquefied petroleum gas cylinders and dissolved gas cylinders shall not be stacked in a horizontal position.
- Cylinders containing flammable gases, other toxic gases shall be kept away from cylinders containing other type of gases.
- Cylinders shall not be stored along with any combustible material.

### **Precautions in handling & storing gas cylinders or containers:** (Refer Rule No. 212 of Red Tariff No. 20)

Commodities mentioned in this chapter, shall not be stored or handled with or near explosives or other dangerous goods. Smoking and carrying any type of fire must not be allowed near these commodities.

### **Modes of Transportation**

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

## **Storage and Carriage**

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

## **Additional Rules**

Exceptional or Additional Rules regarding packing, marking and labeling, carriage by Goods/ Mixed/Parcel train and storage and Carriage rules have been specified in Table II, Chapter II of Red Tariff No. 20. Characteristic property of gas & pictorial level indicating main characteristics of the gas is also indicated in column 2 & column 3 of table II.

## **CLASS – III (PETROLEUM & OTHER INFLAMMABLE LIQUIDS)**

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

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

A list of items included under above three classes is given in table III, Chapter III of Red Tariff No. 20.

Rules regarding general restrictions on conveyance and acceptance of petroleum and other inflammable liquids have been detailed in rules 302, 303, 304, 305 & 306 of Red Tariff No. 20.

## **Packing, Marking & Labeling**

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

## **Storage**

Time of Loading and Unloading: All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset.

Prohibition of smoking, fires etc.: Smoking, taking fire, naked light matches or other articles of inflammable nature is strictly prohibited near petroleum and other inflammable liquids.

## **Transportation**

- a) Petroleum and other inflammable liquids, Class 'A', shall be transported by goods trains only.
- b) Petroleum and other inflammable liquids, Class 'B' and 'C' may be transported in wagons by all trains except passenger trains.

## **Conveyance in tank wagons**

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

## **Storing in wagons, labeling, sealing and locking**

A '**DANGEROUS**' label must be affixed to both sides of every wagon.

## **CLASS – VIII: (ACIDS AND OTHER CORROSIVES)**

A List of Acids and other corrosives which have been considered dangerous goods are given in Chapter VIII, table VIII of Red Tariff No. 20.

## **Packing, Marking and Labeling:**

More precautions need to be taken by Railway Officials that it is packed strictly in the manner laid down in column 2 of table VIII and as per rules 807 of Red Tariff No. 20.

## **Handling and Storage**

### **b) Time of loading and unloading:**

All operations of loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset.

## **Transportation:**

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

## **Storing in Wagons**

Labeling, Sealing and Locking of Wagons

A '**DANGEROUS**' label shall be affixed on both sides of every wagon in which acids and other corrosives are stored for dispatch or delivery or while in transit.

## **Precautions to be taken during shunting**

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

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

### **Stationary Storage of Dangerous Goods**

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

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

### **Rescue Relief and Restoration Operations**

Railway's expertise in dealing with the mis-happenings like spillage, catching fire etc. of these dangerous goods is very limited. It is, therefore, imperative that the respective zonal railways will develop and nurture coordination with those agencies and organizations on their system that have expertise in dealing with the hazardous material being handled and transported on the respective zonal railways. Contact details e.g. Name, Designation, Telephone Nos., Mobile Nos. etc. of such agencies should be available in the divisional and zonal Railway Disaster Management Plan so that these agencies can be called for without any delay during any untoward incident. However, not to mention the least nominated staff of ARMVs, ARTs and few of the staff maintaining the rolling stock which is used for transportation of hazardous material may be trained and equipped with the equipment used for dealing with such material in the eventualities.

### **PHONE NUMBERS FOR EMERGENCY SERVICES TO DEAL THE PETROLIUM HAZARDS**

Division	Designation	STD cod	P&T	Mobile No.
BSP	Asst. Manager (IOCL)	07752	261218	9425065519
	Asst. Manager (HPCL) KRBA	07759	271230	8959596238
Raipur	Divl. Manager (IOCL)R	0771	4023157	9425600537
	Area Manager (IOCL) R	0771	4023928	9425602043
Nagpur	Area Manager (IOCL) Gondia			94422804623 9422804639

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**CHAPTER-15****GUIDELINE REGARDING FIRE**

Fire on a running train is more catastrophic than on a stationary one, since fanning by winds helps spread the fire to other coaches. Moreover, passenger's sometime 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 IN TRAIN:**

- i) Carrying stoves, sigris, gas cylinders, kerosene oil, petrol, fireworks etc. in passenger compartments.
- ii) Making fire/using fire near paper, wood, petrol or such other inflammable articles.
- iii) Lighted match sticks, cigarette ends carelessly thrown.
- iv) Short circuit electrical wirings.
- v) Using naked light during authority token delivery to the driver, shunting of inflammable loads, sealing of inflammable wagons.
- vi) 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. In general fire originates in a small level. When burning materials with adequate supply of air surround it, fire spreads.

**ACTION TO BE TAKEN IN CASE OF FIRE IN TRAIN:**

- ii) First and foremost immediately summon the fire bridge.
- iii) Secondly, over your nose & mouth and breath through it in as normal a manner as possible.

**A. IN CASE OF FIRE IN A PASSENGER TRAIN:**

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



**B. IN THE EVENT OF A VEHICLE ON A TRAIN BEING ON FIRE:**

- i) Stop the train immediately.
- ii) Don't panic
- iii) Evacuate passengers from burning coaches.
- iv) Protect property, valuables & mails.
- v) Locate fire extinguishing substances viz, water bucket with water/sand, fire extinguishers etc.
- vi) Use fire extinguisher if any and put out the fire.
- vii) Use water from the coaches and extinguish the fire.
- viii) Throw earth or sand, if available on the fire.
- ix) Ascertain the type of fire viz, dry, oil gaseous, electric and use the right type of extinguishers.
- x) Isolation the burning vehicle from other vehicle by uncoupling.
- xi) Train to be protected by Driver and Guard at both ends according to the provision of G&SR 6.03.
- xii) Report it to the nearest station/control fire station.
- xiii) Every effort shall be made to extinguish the fire and to save the wagon lables, seals and contents of the vehicle.
- xiv) In case fire is discovered when the train is near a tank or watering station, the Guard and Driver shall use their discretion to proceed there but no such attempt shall be made until the portion of the train in rear of burning vehicle has been detached.
- xv) Inform all concerned to assist in extinguishing the fire.
- xvi) In case of fire from electrical short circuit switch off the source.

**C. IN THE EVENT OF FIRE ON AN ELECTRIC ENGINE:**

- i) Driver shall immediately switch off 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, driver shall taken necessary action to put out the fire.
- iii) If fire cannot be extinguished by the above means driver shall advise TPC through emergency telephone to arrange for OHE of the affected section to be switched off.
- iv) The guard and any other staff available shall render all possible assistance to the driver in putting out the fire.
- v) Ordinary fire extinguishers or water from a hosepipe shall on no account be used to extinguish fire on live wire or electrical equipment.
- vi) If service of fire brigade are required, fire brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the have been made dead.

**D. IN THE EVENT OF A FIRE ON A DIESEL ENGINE:**

- i) The Driver 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 Driver in putting out the fire.
- iii) Fire extinguishers of approved type shall be provided on each diesel locomotive 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.

**E. 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 should he rush out in the open air.
- vi) Call for assistance.

**F. FIRE CAUSED BY PETROL OR OTHER INFLAMMABLE LIQUIDS, ACCIDS 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 and sand and not water or soda acid type fire extinguishers.
- iv) Do not bring naked lights near the site of fire.
- v) Warn the 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 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 station intimating that petrol or any other inflammable liquids, acids or gases have caused the fire.

**G. 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.
- iii) Move unheated cylinders to a safe place after ensuring closing of valves.
- iv) 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.
- v) If cylinder containing inflammable/toxic gas develops leak during transportation, remove it to an isolated open place away from any source of ignition and advise the filler or consigner as required.
- vi) Inform the Chief Controller of Explosives by fax/telephone.
- vii) Inform officer in charge of nearest police station.
- viii) Inform department officers concerned.
- ix) Pending the visit of the Chief Controller of Explosives/his representative, the wreckage and debris shall be left undisturbed except to save lives.
- x) After getting information from the Chief Controller of Explosives that he does not wish any further investigation the restoration work may be commenced.

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## **CHAPTER-16**

### **GUIDELINE REGARDING EARTHQUAKE**

#### **What is an earthquake?**

Earthquakes refer to shaking of earth. There is continuous activity going on below the surface of the earth. There are several large plates (size of continents) below the surface of the earth, which move (at a very slow speed). As a part of this movement, sometimes, they collide against each other. And, after the collision, they might still continue to push each other. As they continually keep pushing each other, there is a pressure building up-across these plates below the surface. And, then, at a certain time, one of the plates might slide over another. This causes an earthquake.

#### **Classifying an Earthquake**

The impact of an earthquake (at any location) is characterized by two primary characteristic:

- **Intensity**

This measures the magnitude of the event. Higher is the value, the bigger is the magnitude. The most common scale used for measuring an earthquake is Richter scale. It should be understood that Richter scale is a logarithmic scale. What this means is an earthquake measuring 6.0 is 10 times more powerful than an earthquake measuring 5.0

- **Epicenter**

This denotes the exact location, where the earthquake originated. The deeper it is inside the earth, the lower will be the impact on the surface-where human beings reside.

There are 100s of earthquakes taking place on a daily basis all around the world. However, most of these earthquakes are really low intensity, too-low to be noticed. However, some earthquakes which are significantly intense.

#### **Some Recent Earthquakes**

Some of the earthquakes in recent times have been (not in any particular order):

- 15.El Salvador; In 2001; Magnitude: 7.7
- 16.S. Peru; In 2001; Magnitude 7.9
- 17.Algeria; In 2003; Magnitude 6.8
- 18.Indonesia; In 2004; Magnitude 9.0
- 19.India; In 2001; Magnitude 8.1
- 20.China-Sichuan province; In May 2008; Magnitude 8.1; More than 68000 dead, and, 350000 injured.

#### **Nature of Loses and Damages**

The most common kinds of loss that are caused by an earthquake (depending on the severity) are:

### **Immediate Injuries**

During an earthquake, there are many ways by which one can get hurt (many times, fatally)

1. People inside buildings could get hurt (even critically) by fall of objects, walls & ceilings.
2. People outside the buildings could get hurt by falling debris from damaged buildings, glasses etc.
3. People travelling could get hurt by their vehicles falling off the tracks, bridges, material falling from overhead bridges etc.
4. People could get electrocuted by snapped electrical wires.
5. People could get washed away by floods-caused due to tsunamis, breaches in dams etc.

### **Immediate Safety**

Hence, in case of an earthquake, the safest place to be would be in an open ground-away from all kinds of buildings.

If you cannot rush out of your building, you can duck under some sturdy desk etc, which might provide protection against heavy objects falling on your body.

If even that is not possible, sit against a wall, with your back pushing the wall firmly, and, lean forward –to take your head in between both your knees, and, put your hands at the back of your head-to provide protection to your head and spine. Or, you could stand directly below one of the door frame in your house. This one appears a bit strange to many people. In fact, there are jokes that after an earthquake-you don't see all those door-frames standing. So, what's the reasoning behind advising people to stand below door frames? In most styles of construction, doorframes are made very strong, or, would have a "RCC beam" running right above these frames. Either way, this "strong" structure would take the impact of objects falling from above, and, would break the impact of the heavy objects falling on the person. If you use this posture, remember to save your arms and fingers from swaying doors etc. if not careful, they could cause damage by chopping off fingers etc. due to banging of the doors against the frame.

Some simple thumb rules to follow for constructing a house in an area prone to earthquake:

1. The entire construction should be a single monolithic, so that the whole structure can move as a whole.
2. To the extent possible, material used should be something that has been available locally. This would allow very little differential in the movement of your building vis-à-vis the material over which the house sits-thus reducing the chances of sinking.
3. Minimum use of glass in building facades. These decorative pieces could be deadly, during an earthquake. Glass being very brittle, even a minor twist in the structure could cause breakage. And, glass being very heavy and injurious could cause severe damage.

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## **CHAPTER-17**

### **GUIDELINES REGARDING FLOOD**

#### **What is Flood?**

A temporary overflow of a normally dry area due to overflow of a body of water, unusual buildup, runoff of surface water, or abnormal erosion or undermining of shoreline. Floods can also be overflow of mud flow caused by buildup of water under underground.

#### **National Mitigation project:**

The NDMA has proposed to take up a national flood mitigation project in the eleventh five year plan whose aims and objectives will be evolved in due course. Broadly, it will address the following issues and training and educating people to cope up with floods at district/block levels.

- Securing prompt and people friendly dissemination of information to the public.
- Establishing a dedicated communication network that can remain functional during floods.
- Setting up of Flood shelters.
- Suitably locating flood disaster relief centers/basic infrastructure like hospitals, stores, etc. on high ground, so that they remain functional during floods.
- Creating and maintaining an adequately trained disaster response force.
- Identifying road transport/Rail/communication networks that connect flood disaster relief/supply centers to flood prone areas and including construction of new rail/road infrastructure that may be reliably used during floods.
- Identifying suitable high grounds where people can be shifted during floods.
- Strengthening the flood forecasting and warning network.

#### **Action Plan at Various levels:**

These guidelines have been drawn up in the context of a rigorous risk management framework to ensure the effectiveness of action plans that are developed by various agencies. All key agencies, including the central ministries, and departments, state government, local bodies including Panchayati Raj institution and Urban Local Bodies like metropolitan development authorities, municipal corporations, municipal councils and district authorities will develop detailed FMPs based on these Guidelines. State governments and local authorities will play an important role in the formulation and effective implementation of such action plans. The communities and other stakeholders will play an important part in ensuring compliance to the regulations and their effective enforcement. The State Disaster Management authorities will be responsible for reviewing and monitoring the implementation of the action plans at the state-level.

These Guidelines rest on the following objectives aimed at increasing the efficacy of the FMPs, which will be prepared at various levels.

1. Shifting the focus to preparedness by implementing, in a time-bound manner, an optional combination of techno-economically viable, socially acceptable and eco-friendly structural and non-structural of FM.
2. Ensuring regular monitoring of the effectiveness and sustainability of various structures and taking appropriate measures for their restoration and strengthening.

3. Continuous modernization of flood forecasting early warning and decision support systems.
4. Ensuring the incorporation flood resistant features in the design and construction of new structures in the flood prone areas.
5. Drawing up time-bound plans for the flood proofing of strategic and public utility structures in flood prone areas.
6. Improving the awareness and preparedness of all stakeholders in the flood prone areas.
7. Introducing appropriate capacity development interventions for effective FM (including education, training, capacity building, research and development, and documentation.)
8. Improving the compliance regime through appropriate mechanisms.
9. Strengthening the emergency response capabilities.

#### **Activities for minimizing flood risk and losses:**

The activities proposed to be undertaken aim at minimizing the flood risk and losses and are to be implemented in three phases in addition to recurring activities.

##### **Phase-1**

These activities include identification and marking of flood prone area on maps, preparation of close contour and flood vulnerability maps, formulating plans for expansion and modernization of flood forecasting and warning system, identification of priority flood protection and drainage improvement works, identification of reservoirs for review and modification of operation manuals and rule curves and undertaking special studies on problems of river erosion. These will be initiated immediately and efforts will be made to complete them in a phase's manner with the last of these activities scheduled for completion by January 2010.

##### **Phase-II**

These include implementation of the schemes for expansion and modernization of the flood forecasting and warning network, execution of flood protection and drainage improvement schemes, modification and adoption of revised reservoir operation manuals, enactment and enforcement of flood plain zoning regulations and planning and preparation of detailed project reports for storage reservoirs and implementation of the schemes for real-time collection of hydro-metrological data on rivers in Nepal, Bhutan and China. These activities, which aim at implementation of FMPs, will commence immediately after the completion of the link activities of Phase-1 and will be completed by March 2012.

##### **Phase-III**

Implementation of activities, which include construction of dams and catchment area treatment (CAT) works in India as well as neighboring countries, is likely to take considerable time as they entail major environmental, social, inter-state and international implications. These need careful study and interaction with the stakeholders. It is envisaged that all feasible schemes will be completed by the year 2025.

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## CHAPTER – 18

### CYCLONE DISATER MANAGEMENT

Millions of people living in the coastal areas of the West Atlantic, East, South Pacific and North and South Indian Oceans, regularly face the hazards of cyclone, also known as hurricane in the Western Hemisphere, typhoon in the western Pacific, *willy willy* near Australia and *baguious* in the Philippines.

Every cyclone begins as tropical low - pressure depressions, created by oceanic temperature rising above 26 degrees Celsius, which rotates clockwise in the Southern Hemisphere and counter clockwise in the Northern Hemisphere, forming a gigantic and highly volatile atmosphere system with an eye at the vortex (10 to 50 Km) which is a relatively calm area, an eye wall 10 to 15 Km in height and 50 Km in length) of gale winds and intense clouds and spiral bands of convective clouds with torrential rains (a few Km wide and hundreds of Km long) - that move above 34 knots (64 Km per hour). The cyclones moving more than 90 Km, 120 Km and 225 Km per hour respectively have been classified as severe and super cyclones.

The hurricanes in the Atlantic and Northeast Pacific basins are classified in categories I to V as per Saffir-Simpson Intensity Scale.

The lessons drawn from catastrophic cyclonic areas show that in the more developed countries causality is less but more on the economic front. Conversely in poor countries the human losses would be more but economic losses would be less simply because the unit costs of damages are assessed lower in developing countries. In middle income countries the damages to life and property would be somewhere in between.

The most complex task of mitigation is to map the hazard, risks and vulnerabilities of cyclone at all levels, analyze and assess the levels of risks and monitor it continuously. It is only on the basis of such knowledge base that a proper and effective strategy for cyclone risk mitigation and preparedness can be developed.

Atmospheric and Remote Sensing sciences have made a huge progress in the understanding of the phenomenon of cyclones. Satellite images can spot the development of low pressure zones, Doppler radars can track them down and instrumented aircrafts can reach the cyclone eye, eye walls and spiral bands to transmit data on wind velocity, pressure and moisture contents of the low pressure zones. Powerful Software tools are available to analyze the data to make fairly accurate forecasts on the intensity, direction and location of the landfall and the likely area to be affected by winds, rain and storm surges.

The time series data on cyclones are now utilized to map and zone the areas prone to the hazards of cyclone. Such maps are now available at a regional, district and even sub district levels in most of the countries. Such maps are also available in digital formats which enable integration of various spatial data with socio-economic, housing, infrastructure and other variables that can provide a quick assessment of the risks and vi vulnerabilities of cyclone based on which appropriate mitigation and preparedness strategies can be developed. But actual work on such data integration has been limited to few areas only and therefore vulnerability analysis has still to be done on the basis of ground level data collection and analysis, which is largely unattended task in most of the countries.



The satellite imageries are also supplemented with data regarding topography, vegetation hydrology, land -use, land cover, settlement pattern etc to develop numerical models of storm surge and the inundation levels based on which timely warnings can be issued and realistic evacuation plans can be drawn up to shift the people and cattle likely to be affected by the cyclone.

However, such theoretical advance on cyclone modeling have been confronted with constraints in practical applications which would require sustained research for accurate forecasting and simpler application format that would enable transfer of the technology to the planners and emergency response managers.

The constraints are further compounded by non-availability of accurate ground level data base and the costs involved in up-scaling such models from a pilot research phase to country wide application phase. Such works are still in progress even in advanced countries and therefore developing countries may not have the benefit of such accurate modeling in the very near future although this is well within the realm of possibility.

The other solution is the importance of Community Based Participatory Risk Assessment (PRA). Many such PRA tools have been developed in coastal areas which capture the intimate knowledge and perception that a community has about its own risks and vulnerabilities. Such perceptions have been validated by scientific analysis, lending credence to the reliability, simplicity and cost effectiveness of such assessment. More importantly, it involves the communities in the entire process making it democratic, sustainable and proactive and definitely facilitates bridging the gap between assessment and preparedness or knowledge and action.

*Therefore the ideal tool for assessment of cyclone risks and vulnerabilities at the local level should be a combination of scientific and traditional knowledge each supplementing the other.*

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

- (i) Stop the train clear of cuttings, bridges and embankments.
- (ii) Guard, Driver and other Railway staff on train shall open all doors and windows of all coaches.
- (iii) Station Master shall not start trains when the wind velocity exceeds the permitted level.
- (iv) Make announcement frequently to warn the public about the storm/cyclone.
- (v) Take all necessary action to provide shelter and other assistance to those affected by cyclone and storm.

**Riots/Strikes:**

**When a train is caught in a riot/Strike mid section/station:**

- (i) Stop the train.
- (ii) Sr. DSC/DSC will Co-ordinate with local civil authoritative to ensure protection of passengers/Railway property.
- (iii) Sr. DSC/DSC will rush immediate reinforcement to site.
- (iv) Necessary arrangements viz Barricades etc may be used.

**Landslide/Boulder falling:**

- (i) Whenever landslide/boulder falling expected/experienced due to heavy down pour or otherwise all train services should be regulated.
- (ii) Rescue team to be rushed for restoration work.

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**CHAPTER – 19****CRISIS MANAGEMENT PLAN OF RAILWAY BOARD****INTRODUCTION**

Indian Railway has a vast network of freight and passengers per day. In any national level crisis, where major transport requirements are envisaged, Indian Railways will have to play an important role. However, Indian Railways can also get involved in a Crisis situation having national level repercussions needing assistance for other ministries/departments of Govt. of India.

**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) <b>All India Railway Strike</b>                            | : | <u>Member Staff</u><br><u>Member Mechanical (Alternate)</u>    |
| ii) <b>Terrorism/Security related Crisis</b>                  | : | <u>Member Staff</u><br><u>Member Traffic (Alternate)</u>       |
| iii) <b>Natural Factor (s) related Crisis</b>                 | : | <u>Member Engineering</u><br><u>Member Traffic (Alternate)</u> |
| iv) <b>Major Train Accidents</b>                              | : | <u>Member Traffic</u><br><u>Member Mechanical (Alternate)</u>  |
| v) <b>Crisis where Railways have to help other Ministries</b> | : | <u>Member Traffic</u><br><u>Member Staff (Alternate)</u>       |

**The Crisis Management Plan deals with National level crisis situations which are as under:**

**1. ALL INDIA RAILWAY STRIKE:**

- 1.1 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.
- 1.2 The board guidelines and general instructions of the strike scheme are to attain the following objectives:
  - a. To provide an emergency organization to operate the Railway under such conditions as 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 along with 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 enable them to continue their work unmolested.

### 1.3 **Role of other Ministries/Departments**

- i) 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.
- ii) Strike Scheme of all the concerned zonal railways is circulated to the district Magistrates 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.
- iii) 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.
- iv) 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, ASMs cabins/offices, running rooms, etc.; vulnerable locations like tunnels, bridges, etc.; manning and escorting of selected strategic trains, etc.
- v) On contacting by the Railway Administration in the event of the strike, local police and Civil Administration will extend assistance to maintain law & order to facilitate working of the railway. Local Police Agencies will also act as per the development plan to extend help in guarding the critical railway installations and for escorting of trains.
- vi) Local civil administration will ensure and assist railway in mustering the assistance from non-railway agencies like Public Works Departments, Irrigation departments, Private agencies in having the specially equipment available with them to facilitate smooth operations.
- vii) Services of Para-Military services available in the affected region will also be extended, if needed through Ministry of Home Affairs.
- viii) Territorial Army will be deployed as demanded by the Railways through Ministry of Defence.
- ix) 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.
- x) 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.

- xi) All the 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.

## **2. TERRORISM/SECURITY RELATED CRISIS**

- 2.1 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 Rail net server for expeditious search of the key information at the time of Crises.
- 2.2 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 railway authorities. While Co-ordination among different railway agencies would be done by the senior-most railway officer present at the site, he should specially nominate a senior RPF officer to coordinate with the police agencies.
- 2.3 In cases of large scale incidents of sabotage or explosion on railways, requiring assistance from Ministry of Home Affairs, Cabinet Secretariat and the State Governments, Director General, Railway Protection Force, will coordinate on behalf of the railways as convener of CMG for this crisis.
- 2.4 **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 that region will have SOPs in place in co-ordination with all the other agencies like Railway Protection Force, Government Railway Police, and locally deployed staff of the railway to guard vulnerable railway installations like major railway stations, trains, vulnerable locations, etc. It will act accordingly 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 centers, if any, in the region should be alerted to receive the victims for their expeditious treatment.

Local civil administration will organize surveillance of the terrorism prone area after the event to preclude another happening.

- v) MHA will activate National Security Guard and help from other security related agencies to reach the site of crisis and take over from the local personnel for larger operation.
- vi) MHA will also requisitioned national disaster response force, if so considered essential for the crisis and will direct the force to reach the place of crisis.
- vii) 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.
- viii) Ministry of Defence will mobilize defence personnel to take over the crisis situation as per the need.

### **3. NATURAL FACTORS RELATED CRISIS**

- 3.1 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 be immediately invoked to action.
- 3.2 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 & guide divisional railway managements in their endeavors and will organize to supplement their efforts under such crisis situation.
- 3.3 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.

#### **3.4 Role of other Ministries/Departments**

- i) Meteorology department will communicate the natural factors like cyclone, heavy rains, and 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.
- iv) 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.

- v) Local civil administration will assist railways in harnessing resources from non-government agencies also e.g. divers, earthmoving equipment, etc.
- vi) Resources with all the agencies will be polled and leveraged to help evacuation, if so needed.
- vii) Department of Space will provide flood inundation map/information to the concerned Railway Administration to facilitate their being warned of any imminent crisis situation.

#### **4. MAJOR TRAIN ACCIDENT**

- 4.1 On received of information of a Train Accident involving/suspecting injures 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.
- 4.2 All Railway men, since their recruitment, are made aware of sacredness and vital importance for dispatch and movement of ARMVs and ARTs within prescribed time.
- 4.3 The Medical Team attends to the injured passengers and seriously wounded are transported to nearby hospitals.
- 4.4 The cost of such treatment is borne by the Railways. Dead bodies are handed over to Police for further action such as autopsy etc. for medico-legal purposes.
- 4.5 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.

#### **4.6 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 the 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.

#### **5. CRISIS WHERE RAILWAYS HAVE TO HELP OTHER MINISTRIES**

Ministry of Railways will provide emergency support and assistance to other ministries mostly in regard to rail transportation. For this purpose Ministry of Railways has issued an Emergency support Function plan(ESF) vide 2003/Safety(DM)/6/3 dated 25.10.04 nominating Quick response Teams (QRTs) at the Ministry level and Zonal railway level as well. QRT at the level of Ministry of railways is CMG for dealing with the crises situation to help other Ministries.

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.

**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 fact, 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) Persons noticing a bomb like object, should bring it to the notice of the nearest available officer.
- (vii) Inform GRP, RPF and bomb detection squad.
- (viii) Ensure all persons are away from the spot and avoid unnecessary crowding near the area.
- (ix) Inform control to take further steps for regulating train services.
- (x) Wait for clearance from the police department to restore normal working.
- (xi) Utilize "Caller ID" facility if provided to trace the caller.

**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:**

**(a) For a bomb:**

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

**(b) For Biological or Chemical:**

- (i) Isolate-don't handle,
- (ii) Call police/Fire service/Bomb squad.
- (iii) Wash your hands with soap and water.

**(c) For Radiological:**

- (i) Limit exposure-don't handle,
- (ii) Evacuate area,
- (iii) Shield yourself from the object.
- (iv) Call police/Fire service/Bomb squad

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**CHAPTER – 20****SITE MANAGEMENT PLAN**

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

1. Trained Railway men from Medical, Commercial, Safety, Electrical, S&T, and Mechanical, Engineering, Security, Personnel and other departments.
2. In case of fire accidents, trained fire service personnel shall form part of this unit.
3. In case of an accident on water body, divers and Naval cadets will also be part of the team.
4. In case of sabotage or bomb explosion, bomb disposal squad and GRP/Local police will also be involved.
5. Various rescue units shall accompany ARMVs, ARTs or move by road as quickly as possible.

**Officer-in charge of site (OC Site):**

On arrival of ARMV at accident site DRM shall take over as OC Site from the senior most officer of the accident involved train. On arrival of 1<sup>st</sup> Special train carrying GM and other Head/quarters officers, GM shall be OC at Site. In the absence of GM, the senior most officer shall be OC at 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:

1. Crowd control and Law and Order.
2. Rescue operation.
3. Relief operation.
4. Video coverage of accident site.
5. Installation of Communication Network.
6. Clearance from State Police for restoration.
7. Preservation of clues and evidence.
8. Medical Management at site.
9. Salvage operation.
10. Restoration operation.

**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.

- (i) Such photographs should clearly indicate:
  - Severity of the accident.
  - illustrate the damage to P-Way, Rolling Stock, Signal, OHE and other structures and equipment.
- (ii) Separate set of photographs to be taken to preserve clues and evidence of sabotage. If suspected.
- (iii) Victims and unidentified bodies should also be extensively photographed.



**For efficient Disaster Management, responsibilities of various departments are to be executed by deputing responsible officers and supervisors. Important duties of OC at site are enlisted as follows:**

- (i) Ensuring setting up of Unified Command Center (UCC), Central Assistance Center (CAC) and Local Command Center (LCC) at the earliest.
- (ii) Collect information from OC 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 divisions of SECR,
  - adjoining Zones,
  - non-railway agencies
- (v) Channelize local resources to supplement available railway resources
- (vi) Ensure that duties of various functionaries of different departments.
- (vii) Ensure co-ordination among all departments for efficient rescue, relief and restoration operation.
- (viii) Ensure information to SP and district Magistrate.
- (ix) In case of sabotage, direct RPF to obtain quick clearance from State Police.
- (x) In case of serious explosion or fire, clearance from Controller of Explosives is to be obtained.
- (xi) Give prima facie cause of the accident along with forecast of expected date and time of restoration.
- (xii) Ensuring timely information on the progress of rescue, relief and restoration work every 3 hours with following details:
  - Number of coaches searched.
  - Nature of injuries to passengers.
  - Number of bodies recovered.
  - Number of bodies identified.
  - Number of coaches dealt with.
  - 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 at accident site:
  - Re-railment.
  - Track fitness.
  - OHE fitness.
  - Points and inter -locking.
  - Clearance of section.
  - Movement of 1<sup>st</sup> train.

**Duties of Divisional Railway Manager:**

- (i) Ensure that functionaries of different branches at the site of accident carry out duties assigned to them as per accident manual.
- (ii) Co-ordinate with Divisional Emergency Cell regarding assistance required.
- (iii) Co-ordinate with Civil Authorities especially with regard to:
  - Requisitioning of buses from State transport authorities, with drivers for round the clock duty.
  - Waiving off of Post Mortem formalities.
  - Positioning of Municipal Official in the CAC for issuing of official death certificate.

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Issued by

**संरक्षा विभाग**  
**SAFETY DEPARTMENT**

**दपूमरे/बिलासपुर**  
**SECR/Bilaspur**